CURRICULUM VITAE

A. Name: **Prof. AMAL CHANDRA MONDAL**

B. Institution's Address: 211 & 215, School of Life Sciences,
Jawaharlal Nehru University, New Mehrauli Road
New Delhi -110 067, Delhi, INDIA.

C. Academic Qualification:

1994 B.Sc. (Human Physiology), University of Burdwan, (W.B.), India

1997 M.Sc. (Human Physiology), Vidyasagar University, (W.B.) India

2004 Ph.D. (Chittaranjan National Cancer Institute) & Jadavpur University, Kolkata, India

Thesis Title: "The Significance of Plasma Dopamine in Chronic Anxiety and Depression- An Analysis in Indian Cancer Caregivers"

Date of Registration: 07.11.2000 (Ref: D-Sc/1158/02), Date of Submission of thesis: 10.10.2002, Date of Award of Ph.D.: 11/08/2004

D. Position and Employment (Starting with the most recent employment)

Sl No.	Institution /Place	Position	From Date)	To (date)
1.	Jawaharlal Nehru University, New Mehrauli Road New Delhi-110067	Professor in Cellular & Molecular Neurobiology	01.10.2019	Present
2.	Jawaharlal Nehru University, New Mehrauli Road New Delhi-110067	Associate Professor in Cellular & Molecular Neurobiology	01.10.2015	30.09.2019
3.	Raja Peary Mohan College, Uttarpara, Hooghly, (W.B.)	Assistant Professor in Human Physiology (Stage 1 -3)	11.05.2005	30.09.2015
4.	University of Illinois at Chicago (UIC), Chicago, IL-60612, USA.	Post Doctoral Research Associate	21.01.2003	30.04.2005
5.	Chittaranjan National Cancer Institute, 37, S.P. Mukherjee Road, Kolkata-700026.	JRF & SRF	04.06.1998	13.09.2002

E. Summary of the Ph.D. work

It is now well recognized that chronic psychosocial stress suppresses both cellular and humoral immune responses rendering susceptible to different diseases including cancer. One of the underlying mechanisms leading to this phenomenon has been suggested to operate at the level of neuro-immune communications. Furthermore, dysregulated corticosterone release has been implicated as one of the mediators of immune suppression in psychological stress. Because significant elevation of plasma dopamine in chronic psychological stress is evident and dopamine mediated functional suppression of T cells has been shown by us and others, therefore the significance of dopamine (DA), a catecholamine neurotransmitter in regulation of the immune effector cells needs to be explored in psychological stress. Among the different types of chronic psychosocial stress in modern society that affects health of considerable number of people, stress due to caregiving for spouses suffering from prolonged illness is important. Due to increased incidence of cancer and advancements in the field of early detection and treatment of cancer, we now observe increased number of these patients living longer who need care and support for prolonged periods of time. In addition, high cost of treatment, uncertain future and long-term caregiving make the caregivers of these cancer patients susceptible to chronic psychological stress.

Therefore, considering the cancer caregivers as a model of chronic psychological stress, we investigated the significance of plasma DA in the regulation of T and B cell functions.

Irrespective of age and sex, the plasma dopamine in more than 80% of cancer caregivers were found to be significantly elevated than their age and sex matched controls. The circulating T and B cells were also functionally depressed (as assessed by proliferation and cytokine release) in these patients. Further experiments were then carried out to evaluate correlation, if any, between the elevated plasma DA in these cancer caregivers and the functional depression of their circulating T and B cells.

The level of plasma DA found in cancer caregivers when added to in vitro culture of T and B cells (in comparison to that collected from age and sex matched normal controls) caused significant inhibition of T and B cell proliferation and cytokine release. Abrogation of this DA induced inhibitory effect by DA_2 receptor antagonists revealed the mechanism to be dopamine D_2 receptor mediated.

This result is thus of significance since it identifies DA as one of the important immune modulators which influences functional activities of immune effector cells. In summary, DA mediated suppression of immune effector cells can be alleviated in the clinics by modulating DA receptors present on T and B lymphocytes.

F. Summary of the Post Doctoral work

I worked as a Post Doctoral Research Associate with Prof. Dwivedi in the Department of Psychiatry at University of Illinois at Chicago from January 2003 to Apr 2005. My area of research interest was to investigate the neurobiological basis of suicidal behavior and mood disorders at cellular and molecular level with an emphasis on signal transduction mechanisms. We have elucidated the role of PKC and PKA mediated signaling pathway in animal model of depression and postmortem suicide victims. We have also investigated the role of neurotrophins in postmortem brain and animal model of depression studies. These pathways involve receptor mediated phosphorylation of various tyrosine kinases receptors (Trk-A, Trk-B and Trk-C) which are responsible for

neurotrophin actions and its further downstream signaling. They play an important role in neuronal survival, differentiation, neuritic outgrowth and synaptic plasticity in depression. Therefore, we investigated the levels of neurotrophins like BDNF in post-mortem brain of suicide victims as well as in animal model of depression. Presently, we have been investigating the behavioral, biochemical, molecular and cellular mechanism of Alzheimer's, Parkinson's disease deploying cellular and animal models and therapeutic interventions of different neuroprotective phytochemicals, polyphenols, small molecule inhibitors, synthetic peptides to decipher the molecular mechanism of the diseases. We have been trying to decipher molecular mechanism and therapeutic interventions of PD, AD and strategic development of novel drug using phytochemicals, small molecule inhibitors against the neurodegenerative disorders.

G. Awards and Honors

1. Elected fellow, International Union of Physiological Sciences (FIUPS)- 2025
2. Elected fellow, Royal Society of Biology (FRSB)- 2025
3. Elected fellow, West Bengal Academy of Science & Technology (FAScT) - 2022
4. Awarded NESA Eminent Scientist of the Year - 2022
5. Awarded Prof. A. K. Mukherjee Memorial Oration- 2021 from The Physiological Society of India
6. Received Dr. A. Namasivayam Award by IABMS- 2016
7. Awarded International Travel Grant by UGC to attend XXI World Congress of Neurology in Vienna, Austria in 2013.
8. Awarded International Travel Grant by UGC to attend XIX World Congress on Parkinson's disease and related disorders in Shanghai, China in 2011.
9. Awarded Dr. K. Anji Reddy Prize, a certificate & cash award from PSI- PHYSICON-2011, NRI Medical College, Guntur, (A.P.)
10. Young scientist award-2000 by ISCA & Pune University.
11. National Merit Scholar 1998.

H. List of peer-reviewed publications in reverse chronological order:

Research papers & Review articles published as independent researcher
(PubMed link: https://pubmed.ncbi.nlm.nih.gov/?term=Mondal+AC.&sort=date&size=20)

69) Subba R, Fasciolo G, Petito A, Geremia E, Tomajoli MTM, & **Mondal AC*,** Napolitano G. Venditti P. Chlorogenic acid alleviates the detrimental effects of concurrent hyperglycemia and chronic stress on brain homeostasis by modulating antioxidative defense in adult zebrafish. **Antioxidants (Basel)** 2025. Nov 21; *14*(12), 1386; https://doi.org/10.3390/antiox14121386. **JIF- 7.3 / 6.6**

68) Ellappan S, Subba R, & **Mondal AC***. Understanding borderline personality disorder: Clinical features, neurobiological insights, and therapeutic strategies. **Progress in Neuro-Psychopharmacology & Biological Psychiatry**. 2025, May 20:111403. https://doi.org/10.1016/j.pnpbp.2025.111403 **JIF- 3.9**

67) Usman S, & **Mondal AC***. Menopause triggers microglia-associated neuroinflammation in Parkinson's disease. **Brain Research.** 2025 Jul 15; 1859: 149649. doi: 10.1016/j.brainres.2025.149649 **JIF- 2.8**

66) Kujur PP, Ellappan S, & **Mondal AC***. Neuronal and Therapeutic Perspectives on Empathic Pain: A Rational Insight. **Neuropharmacology** 2025, July 1; 272: 110414. doi: 10.1016/j.neuropharm.2025.110414. **JIF- 4.6 / 4.7**

65) Rani L. & **Mondal AC***. Vanillin Mitigates the MPTP-induced α-Synucleinopathy in a Mouse Model of Parkinson's Disease: Insights into the Involvement of Wnt/β-Catenin Signaling. **Journal of Integrative Neuroscience.** 2024; 23 (9), 175 doi.org/10.31083/j.jin2309175. **JIF- 2.5**

64) Subba R, Fasciolo G, Geremia E, Tomajoli MTM, Petito A, Carella S, **Mondal AC***, Napolitano G, Venditti P*. Simultaneous induction of systemic hyperglycaemia and stress impairs brain redox homeostasis in the adult zebrafish. **Archives of Biochemistry and Biophysics.** 2024 Jul 18; 759:110101. doi: 10.1016/j.abb.2024.110101. **JIF- 3.6**

63) Sahu MR, Ahmad MH, & **Mondal AC*.** MST1 selective inhibitor Xmu-mp-1 ameliorates neuropathological changes in a rat model of sporadic Alzheimer's disease by modulating Hippo-Wnt signaling crosstalk. **Apoptosis** 2024 Oct; 29 (9-10): 1824-1851.doi:10.1007/s10495-024-01975-0. Epub 2024 May 17. **JIF- 8.1 / 7.7**

62) Biswal P, Sahu MR, Ahmad MH, & **Mondal AC*.** The Interplay between Hippo Signaling and Mitochondrial Metabolism: Implications for Cellular Homeostasis and Disease. **Mitochondrion** 76: 2024:101885, Apr 19. doi:10.1016/j.mito.2024.101885. **JIF- 4.4 / 5.6**

61) Sushma, Sahu MR, Murugan NA, & **Mondal AC***. Amelioration of Amyloid-β Induced Alzheimer's Disease by Bacopa monnieri through Modulation of Mitochondrial Dysfunction and GSK-3β/Wnt/ β-Catenin Signaling (In a special issue- **Nutrition and Cognitive Diseases** under **Molecular Nutrition and Food Research** 2024 Jul; 68 (13): e2300245. Dec 24: e2300245, doi: 10.1002/mnfr.202300245). **JIF- 4.2 / 6.57**

60) Sandeep, Subba R, & **Mondal AC***. Does COVID-19 Trigger the Risk for the Development of Parkinson's Disease? Therapeutic Potential of Vitamin C? **Molecular Neurobiology** 2024 Dec; 61(12): 9945-9960. doi: 10.1007/s12035-023-03756-3. **JIF- 4.3 / 4.8**

59) Ratna D, **Mondal AC** & Mallick BN*. Modulation of dopamine from ventral tegmental area neurons by the LC-REM-OFF and PPT-REM-ON neurons in REMS regulation in freely moving rats. ***Neuropharmacology*** 3 Jun, 237 (2023) 109621, doi: 10.1016/j.neuropharm.2023.109621). PMID: 37276957. **JIF- 4.5 / 4.6**

58) Rani L, Ghosh B, Ahmad MH, & **Mondal AC***. Evaluation of Potential Neuroprotective Effects of Vanillin against MPP+/MPTP-Induced Dysregulation of Dopaminergic Regulatory Mechanisms in SH-SY5Y cells and a Mouse Model of Parkinson's disease. ***Molecular Neurobiology*** 2023 Aug; 60(8):4693-4715. doi: 10.1007/s12035-023-03358-z. Epub 2023 May 5. **JIF- 4.3 / 4.8**

57) Sandeep, Sahu MR, Rani L, Kharat AS & **Mondal AC***. Could Vitamins Have a Positive Impact on the Treatment of Parkinson's disease? (***Brain Sciences***, 2023 Feb 6: 13(2): 272 doi: 10.3390/brainsci13020272). PMID: 36831815. **JIF- 2.8/ 3.1**

56) Ahmad MH, Rizvi MA, Ali M & **Mondal AC*.** Neurobiology of depression in Parkinson's disease: Insights into epidemiology, molecular mechanisms and treatment strategies. ***Ageing Research Reviews*** 2 Jan, (85) 2023. doi.org/10.1016/j.arr.2022.101840). PMID: 36603690. **JIF- 12.4 / 14.9**

55) Ahmad MH, Ghosh B, Rizvi MA, Fatima M, Ali M, Kaur L, **Mondal AC*.** Neural crest cells development and neuroblastoma progression: Role of Wnt signaling. ***Journal of Cellular Physiology*** 2023 Feb; 238(2): 306-328 doi:10.1002/jcp.30931. PMID: 36502519. **JIF- 4.0 / 4.9**

54) Anand SK, Ahmad MH, Sahu MR, Subba R, **Mondal AC***. Detrimental Effects of Alcohol-Induced Inflammation on Brain Health: From Neurogenesis to Neurodegeneration. ***Cellular & Molecular Neurobiology***, 2023 Jul; 43(5):1885-1904; doi: 10.1007/s10571-022-01308-2. Epub 2022 Nov 27. PMID: 36436159. **JIF- 4.5/ 4.86**

53) Ahmad MH, & **Mondal AC***. Cellular and Animal Models of Parkinson's Disease: Rationale into Neuroprotective Effects of Naringenin. ***Indian Journal of Physiology and Allied Science*** 9-12, 74(3): 2022.

52) Rani L, Sahu MR & **Mondal AC***. Age-related Mitochondrial Dysfunctions in Parkinson's disease: New Insights Into the Disease Pathology. ***Neuroscience*** 2022 Sep 1; 499: 152-169. doi: 10.1016/j.neuroscience.2022.07.007) PMID: 35839924. **JIF- 2.8 / 3.0**

51) Sandeep, Ahmad MH, Rani L & **Mondal AC***. Convergent molecular pathways in type 2 diabetes mellitus and Parkinson's disease: Insights into mechanisms and pathological consequences. ***Molecular Neurobiology,*** 2022 Jul; 59(7): 4466-4487. PMID: 35575870. **JIF- 4.3/ 4.8**

50) Subba R, Ahmad MH, Ghosh B. & **Mondal AC***. Targeting NRF2 in Type 2 diabetes mellitus and depression: Efficacy of natural and synthetic compounds. ***European Journal of Pharmacology,*** 2022, Jun 15; 925:174993. doi: 10.1016/j.ejphar.2022.174993. PMID: 35513015. **JIF- 4.7 / 4.7**

49) Sahu MR, Rani L, Subba R & **Mondal AC***. Cellular senescence in the aging brain: A promising target for neurodegenerative diseases. ***Mechanisms of Ageing and Development,*** 2022 Jun; 204: 111675. doi: 10.1016/j.mad.2022.111675. PMID: 35430158. **JIF- 5.1 / 5.9**

48) Sushma & **Mondal AC***. Immunotherapeutic Approaches for the Treatment of Neurodegenerative Diseases: Challenges and Outcomes. ***CNS & Neurological Disorders- Drug Targets*****,** 2023; 22(3):404-416. doi: 10.2174/1871527321666211228100955. PMID: 34963438. **JIF- 2.7**

47) Ahmad MH, Fatima M, Ali M, Rizvi MA, & **Mondal AC***. Naringenin alleviates paraquat-induced dopaminergic neuronal loss in SH-SY5Y cells and a rat model of Parkinson's disease. ***Neuropharmacology*****, 2021** Dec 15; 201**:** 108831. doi: 10.1016/j.neuropharm. 2021.108831. PMID: 34655599. **JIF- 4.6 / 4.5**

46) Anand SK, Sahu MR & **Mondal AC***. Bacopaside-I Alleviates the Detrimental Effects of Acute Paraquat Toxicity in the Adult Zebrafish Brain. ***Neurochemical Research*****,** 2021 Nov; 46(11): 3059-3074. PMID: 34357519. **JIF- 3.8 / 3.9**

45) Anand SK, Sahu MR & **Mondal AC***. Induction of oxidative stress and apoptosis in the injured brain: Potential relevance to brain regeneration in zebrafish. ***Molecular Biology Reports*****,** 2021 Jun; 48(6): 5099-5108. PMID: 34165768. **JIF- 2.8 / 2.8**

44) Subba R, Sandhir R, Singh SP, Mallick BN & **Mondal AC***. Pathophysiology linking depression and type 2 diabetes: Psychotherapy, physical exercise, and fecal microbiome transplantation as damage control. ***European Journal of Neuroscience*****,** 2021, Apr; 53(8): 2870-2900. PMID: 33529409. **JIF- 2.4 / 3.0**

43) Rani L & **Mondal AC***. Unravelling the role of gut microbiota in Parkinson's disease progression: Pathogenic and therapeutic implications. ***Neuroscience Research*****,** 2021 July; 168:100-112. PMID: 33417973. **JIF- 2.3 / 2.4**

42) Paul A, Kumar S, Kalita S, Kalita S, Sarkar D, Bhunia A, Bandyopadhyay A, **Mondal AC***, Mondal B. An explicitly designed paratope of amyloid-β prevents neuronal apoptosis *in vitro* and hippocampal damage in rat brain. ***Chemical Science,*** 2020, 12 (8):2853-2862. **Edge Article**. [Epub 2020, 22 Dec]. PMID: 34164050. **JIF- 7.4 / 7.8**

41) Sahu MR & **Mondal AC***. Neuronal Hippo signaling: From development to diseases. ***Developmental Neurobiology,*** 2021, March; 81(2):92-109. PMID: 33275833. **JIF- 2.3 / 2.5**

40) Ahmad MH, Rizvi MA, Fatima M, **Mondal AC*** Pathophysiological implications of neuroinflammation mediated HPA axis dysregulation in the prognosis of cancer and depression. ***Molecular & Cellular Endocrinology,*** 2021, Jan 15; 520:111093 doi.10.1016/j.mce.2020.111093. [Epub 2020, 27 Nov]. PMID: 33253761. **JIF- 3.6 / 3.8**

39) Srivastav S, Anand BG, Fatima M, Prajapati KP, Yadav SS, Kar K, **Mondal AC***. Piperine-Coated Gold Nanoparticles Alleviate Paraquat-Induced Neurotoxicity in *Drosophila melanogaster.* ***ACS Chemical Neuroscience,*** 2020, Nov 18;11(22):3772-3785. PMID: 33125229. **JIF- 3.9 /4.0**

38) Naz F, Rahul, Fatima M, Naseem S, Khan W, **Mondal AC**, Siddique YH. Ropinirole silver nanocomposite attenuates neurodegeneration in the transgenic Drosophila melanogaster model of Parkinson's disease. ***Neuropharmacology,*** 2020, Oct 15; 177:108216 [Epub 2020, 21 July]. PMID: 32707222. **JIF- 4.6 /4.7**

37) Singh AK, Yadav AN, Srivastava A, Srivastava S, Jaiswal RK, **Mondal AC**, Singh K. CdSe- Reduced graphene oxide nanocomposite toxicity alleviation via V_2O_5 shell formation over CdSe core: in vivo and in vitro studies. ***Nanotechnology,*** 2020, Oct 9; 31(41):415101. PMID: 32311687. **JIF-2.8 /2.8**

36) Fatima M, Ahmad MH, Srivastav S, Rizvi MA, **Mondal AC***. A selective D2 dopamine receptor agonist alleviates depression through up-regulation of tyrosine hydroxylase and increased neurogenesis in hippocampus of the prenatally stressed rats.

Neurochemistry International, 2020 Jun; 136; 104730. doi: 10.1016/j.neuint.2020.104730. [Epub 2020, 19 Mar]. PMID: 32201282. **JIF- 4.0 / 4.1**

35) Sahu MR & **Mondal AC***. The emerging role of Hippo signaling in neurodegeneration. ***Journal of Neuroscience Research,*** 2020 May; 98(5):796-814. PMID: 31705587. **JIF- 3.4 / 4.0**

34) Sushma & **Mondal AC***. Role of GPCR signaling and calcium dysregulation in Alzheimer's disease. ***Molecular and Cellular Neuroscience,*** 2019 Dec; 101, 103414 (doi: 10.1016/j.mcn.2019.103414) [Epub 2019, Oct. 23]. PMID: 31655116. **JIF- 2.4 / 3.1**

33) Rani L & **Mondal AC***. Emerging concepts of mitochondrial dysfunction in Parkinson's disease progression: Pathogenic and therapeutic implications. ***Mitochondrion,*** 2020 Jan; 50:25-34. PMID: 31654753. **JIF- 4.5 / 4.2**

32) Anand SK & **Mondal AC***. Neuroanatomical distribution and functions of brain-derived neurotrophic factor in zebrafish (Danio rerio) brain. ***Journal of Neuroscience Research,*** 2020 May; 98(5):754-763**.** PMID: 31532010. **JIF- 3.4 / 4.0**

31) Kumar S, Srivastav S, Fatima M, Giri RS, Mandal B, **Mondal AC***. A Synthetic Pro-Drug Peptide Reverses Amyloid-β-induced Toxicity in the rat model of Alzheimer's disease. ***Journal of Alzheimers Disease,*** 2019 Apr; 69(2):499-512. PMID: 30958369. **JIF- 3.1 / 3.8**

30) Fatima M, Srivastav S, Ahmad MH, **Mondal AC***. Effects of chronic unpredictable mild stress induced prenatal stress on neurodevelopment of neonates: Role of GSK-3β. ***Scientific Reports (Nature Publishing Group)*** 2019 Feb; 9 (1):1305 doi: 10.1038/s41598-018-38085-2. [Epub 2019, Feb 4]. PMID: 30718708. **JIF- 3.9 / 4.3**

29) Ahmad MH, Fatima M, **Mondal AC***. Role of Hypothalamic-Pituitary-Adrenal Axis, Hypothalamic-Pituitary-Gonadal Axis and Insulin Signaling in the Pathophysiology of Alzheimer's disease. ***Neuropsychobiology,*** 2019 Apr; 77(4):197-205. PMID: 30605907. **JIF- 3.1/ 3.5**

28) Ahmad MH, Fatima M, **Mondal AC***. Influence of microglia and astrocyte activation in the neuroinflammatory pathogenesis of Alzheimer's disease: Rational insights for the therapeutic approaches. ***Journal of Clinical Neuroscience,*** 2019 Jan; 59:6-11. PMID: 30385170. **JIF- 1.8 / 1.9**

27) **Mondal AC*** Fatima M. Direct and indirect evidence of BDNF and NGF as key modulators in depression: Role of antidepressants treatment. ***International Journal of Neuroscience***, 2019 Mar; 129(3):283-296. PMID: 30235967. **JIF- 1.5 / 1.9**

26) Srivastav S, Fatima M, **Mondal AC***. *Bacopa monnieri* attenuates paraquat induced toxicity in *Drosophila* by inhibiting apoptosis through improved mitochondrial function and redox stabilization. ***Neurochemistry International,*** 2018 Dec; 121:98-107. PMID: 30296463. **JIF- 4.0 / 4.1**

25) Ahmad MH, Fatima M, Hossain M, **Mondal AC***. Determination of potential oxidative damage, hepatotoxicity and cyto-genotoxicity in male Wistar rats: Role of

indomethacin. ***Journal of Biochemical & Molecular Toxicology,*** 2018 Dec; 32(12): e22226. PMID: 30252991. **JIF- 2.8 / 3.1**

24) Ahmad MH, Fatima M, Hossain M, **Mondal AC***. Evaluation of naproxen-induced oxidative stress, hepatotoxicity and *in-vivo* genotoxicity in male Wistar rats. ***Journal of Pharmaceutical Analysis,*** 2018 Dec; 8(6):400-406. PMID: 30595947. **JIF- 8.9/ 8.4**

23) Anand SK, **Mondal AC***. TrkB receptor antagonism inhibits stab injury induced proliferative response in adult zebrafish (*Danio rerio*) brain. ***Neuroscience Letters,*** 2018 Apr 13; 672:28-33. PMID: 29471003. **JIF- 2.0 / 2.6**

22) Anand SK, **Mondal AC***. Cellular and molecular attributes of neuronal stem cell niches in adult zebrafish brain. ***Developmental Neurobiology,*** 2017 Oct; 77(10):1188-1205. PMID: 28589616. **JIF- 2.3 / 2.5**

21) Srivastav S., Fatima M, **Mondal AC***. Important medicinal herbs in Parkinson's disease pharmacotherapy. ***Biomedicine & Pharmacotherapy,*** 2017 Aug; 92:856-863. PMID: 28599249. **JIF- 7.5 / 8.0**

20) Fatima M, Srivastav S, **Mondal AC***. Prenatal stress and depression associated neuronal development in neonates. ***International Journal of Developmental Neuroscience,*** 2017 Aug; 60:1-7. PMID: 28389369. **JIF- 1.6 / 1.8**

19) Kumar S., Paul A, Kalita S, Kumar A, Srivastav S, Hazra S, Ghosh AK, Mandal B, **Mondal AC***. A Peptide Based Pro-Drug Ameliorates Amyloid-β Induced Neuronal Apoptosis in *in vitro* SH-SY5Y cells. ***Current Alzheimer Research,*** 2017 Jul; 14 (12) 1293-1304. PMID: 28714389. **JIF- 1.9 / 2.6**

18) Paul A, Kumar S, Kalita S, Ghosh AK, **Mondal AC,** Mandal B. A Peptide Based Pro-Drug Disrupts Alzheimer's Amyloid into Non-Toxic Species and Reduces Aβ Induced Toxicity in vitro, ***International Journal of Peptide Research and Therapeutics,*** 2018 Jan; 24(1):201-211. **JIF- 2.4 / 2.0**

17) Hazra S, Kumar S, Saha GK, **Mondal AC***. Reversion of BDNF, Akt and CREB in Hippocampus of Chronic Unpredictable Stress Induced Rats: Effects of Phytochemical, *Bacopa Monnieri*. ***Psychiatry Investigation,*** 2017 Jan; 14(1):74-80. PMID: 28096878. **JIF- 1.8 / 2.4**

16) Kumar S, Paul A, Kalita S, Ghosh AK, Mandal B and **Mondal AC***. Protective effects of β-sheet breaker α/β hybrid peptide against amyloid β-induced neuronal apoptosis in vitro. ***Chemical Biology and Drug Design*****,** 2017 Jun; 89(6):888-900. PMID: 27995757. **JIF- 3.0**

15) Kumar S. and **Mondal AC***. Neuroprotective, Neurotrophic and Anti-oxidative Role of *Bacopa monnieri* on CUS Induced Model of Depression in Rat. ***Neurochemical Research*****,** 2016 Nov; 41(11):3083-3094. PMID: 27506204. **JIF- 3.8 / 3.9**

14) Banerjee R, Hazra S, Kumar S, Ghosh AK, **Mondal AC***. Chronic administration of bacopa monniera increases BDNF protein and mRNA expressions: a study in chronic unpredictable stress induced animal model of depression. ***Psychiatry Investigation,*** 2014 Jul; 11(3):297-306. PMID: 25110503, **JIF- 1.8 / 2.4**

13) Banerjee R, Ghosh AK, Ghosh B, Bhattacharya S, **Mondal AC***. Decreased mRNA and Protein Expression of BDNF, NGF, and their Receptors in the Hippocampus from Suicide: An Analysis in Human Postmortem Brain. ***Clinical Medicine Insights Pathology,*** 2013 Aug 26; *6*:1-11, doi:10.4137/CMPath.S12530. PMID: 24031163, eCollection 2013.

Papers published from post-doctoral research:

12) Ren X, Dwivedi Y, **Mondal AC**, Pandey GN. Cyclic-AMP response element binding protein (CREB) in the neutrophils of depressed patients: ***Psychiatry Research,*** 2011 Jan 30; 185(1-2):108-12. PMID: 20494459. **JIF-3.9 / 5.4**

11) Dwivedi Y, Rizavi HS, Zhang H, **Mondal AC,** Roberts RC, Conley RR, Pandey GN. Neurotrophin receptor activation and expression in human post-mortem brain: effect of suicide: ***Biological Psychiatry,*** 2009 Feb 15; 65(4):319-28. PMID: 18930453, **JIF- 9.0 / 10.4**

10) Dwivedi Y, Rizavi HS, Teppen T, Zhang H, **Mondal AC,** Roberts RC, Conley RR, Pandey GN. Lower Phosphoinositide 3-Kinase (PI 3-kinase) Activity and Differential Expression Levels of Selective Catalytic and Regulatory PI 3-Kinase Subunit Isoforms in Prefrontal Cortex and Hippocampus of Suicide Subjects. ***Neuropsychopharmacology,*** 2008; 33:2324-2340***. [NPG]*** **JIF- 7.1 / 8.2**

9) Dwivedi Y, **Mondal AC,** Rizavi HS, Faludi G, Palkovits M, Sarosi A, Conley RR, Pandey GN. Differential and brain region-specific regulation of Rap-1 and Epac in depressed suicide victims. ***Arch Gen Psychiatry***, 2006 Jun; 63(6):639-48. PMID: 16754837, **JIF- 17 / 21.8** [After 2013 new name of the journal is **Jama Psychiatry]**

8) Dwivedi, Y. **Mondal, AC.** Rizavi, HS. and Pandey GN: Suicide brain is associated with decreased expression of neurotrophins: ***Biological Psychiatry,*** 2005 Aug; 58 (4):315-324. PMID: 15939410, **JIF- 9.0 / 10.4**

7) Pandey, GN. Dwivedi, Y. Ren, X. Rizavi, HS. **Mondal, A.** Shukla, PK, Conley RR. Brain region specific alterations in the protein and mRNA levels of protein kinase A subunits in the post-mortem brain of teenage suicide victims. ***Neuropsychopharmacology,*** 2005 Aug; 30(8):1548-1556***.*** PMID: 15920506 **JIF- 7.1 / 8.2**

6) Dwivedi, Y. **Mondal, AC.** Shukla, PK. Rizavi, HS. Payappagoudar, G. and Pandey GN: Differential regulation of serotonin (5HT) 2A receptor mRNA and protein levels after single and repeated stress in rat brain: role in learned helplessness behavior. ***Neuropharmacology,*** 2005 Feb; 48(2):204-214. PMID: 15695159, **JIF- 4.6 / 4.7**

5) Dwivedi, Y. **Mondal, AC.** Shukla, PK. Rizavi, HS. Prakasam, S. and Pandey GN: Single and repeated stress-induced modulation of phospholipase C catalytic activity and expression: role in LH behavior. ***Neuropsychopharmacology,*** 2005 March; 30(3):473-483, PMID: 15536495, ***[NPG].*** **JIF- 7.1/ 8.2**

4) Dwivedi, Y. **Mondal, AC.** Shukla, PK. Rizavi, HS. Lyons J. Altered protein kinase A in brain of learned helpless rats: effects of acute and repeated stress. ***Biological Psychiatry,*** 2004 Jul; 56(1):30-40. PMID: 15219470, **JIF-9.0/ 10.4**

Papers published from doctoral research:

3) Ghosh, MC. **Mondal, AC.** Basu, S. Banerjee, S. Majumder, J. Bhattacharya, D. Dasgupta, PS. Dopamine inhibits cytokine release and expression of tyrosine kinases, Lck and Fyn in activated T cells. (*Authors 1 & 2 have equal contribution*) ***International Immunopharmacology*** 2003 Jul; 3 (7):1019-1026. PMID: 12810359, **JIF- 4.7 / 5.0**

2) Saha, B. **Mondal, AC.** Basu, S. Dasgupta, PS. Circulating dopamine level, in lung carcinoma patients, inhibits proliferation and cytotoxicity of CD4+ and CD8+ T-cells by D1 dopamine receptors: an in vitro analysis**.** ***International Immunopharmacology*** 2001 Jul; 1 (7):1363-1374. PMID: 11460316, **JIF- 4.7 / 5.0**

1) Saha, B. **Mondal, AC.** Majumder, J. Basu, S. Dasgupta, PS. Physiological concentrations of dopamine inhibit proliferation and cytotoxicity of human CD4+ and CD8+ T cells in vitro: a receptor-mediated mechanism. ***Neuroimmunomodulation*** 2001; 9 (1):23-33. PMID: 11435749, **JIF- 2.4 / 2.2**

Total Citations 3721, h-index-36, i10-index-57

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https://jnu.irins.org/profile/166177 Vidwan-ID: 166177

I. Published Book/ Book Chapters

1. **Mondal AC*** Role of Plasma DA in Chronic Anxiety & Depression Published by LAP LAMBERT Academic Publishing GmbH & Co. KG Heinrich-Böcking-Str. 6-8 66121, Saarbrücken, Germany ISBN-13: 978-3-659-15335-8; ISBN-10: 3659153354; Date of online publication: 23-06-2012.
https://www.lap-publishing.com/.../role-of-plasma-da-in-chronic-anxiety...

2. Ahmad MH, Rizvi MA, Fatima M, and **Mondal AC*.** Impact of NGF signaling on neuroplasticity during depression: Insights in neuroplasticity-dependent therapeutic approaches, Chapter 31; Page No. 341-350 in the book **"The Neuroscience of Depression:** Genetics, Cell Biology, Neurology, Behavior and Diet" Paperback ISBN No. 978-0-12-817935-2, Editors: Colin Martin, Lan-Anh Hunter, Vinod Patel, Kings College London, Stamford Street, London SE1 9NU, UK. The book is published on 27th March, 2021 by **Academic Press**, an imprint of Elsevier. https://doi.org/10.1016/B978-0-12-817935-2.00032-5

3. Srivastav S, Fatima M, Ahmad MH, and **Mondal AC*.** Impact of CRISPR based gene editing in Environmental Biotechnology, Chapter 11; Page No. 131-142 in the book "**Emerging Trends in Environmental Biotechnology**" Editors: S. Mondal, S. P. Singh and Y. K. Lahir. eBook ISBN 978-1-00-318630-4. The book published on 04th July 2022 by **CRC Press, Taylor & Francis Group, USA.** https://doi.org/10.1201/9781003186304

4. Subba R, Ahmad MH, and **Mondal AC*.** Modelling prenatal stress in rats: impact on the hippocampus, Chapter 44; Page No. 553-564 in the book **"Handbook of Animal Models in Neurological Disease**" Editors: Colin Martin, Vinod Patel, Kings College London, Stamford Street, London SE1 9NU, UK. ISBN 978-0-323-89833-1. **Academic Press**, an imprint of Elsevier. https://doi.org/10.1016/B978-0-323-89833-1.00028-8 (Published on 27 Nov, 2022).

5. Kujur PP, Sahu MR, and **Mondal AC*.** Depression in Parkinson's Disease: A Trajectory Linking Gut Microbiota and Neuroinflammation. Chapter-13; Page No. 323-355 in the book titled "**PsychoNeuroImmunology"** Volume 2: Interdisciplinary Approaches to Diseases Editors: Niloufar Yazdanpanah & Nima Rezaei, the book was published by Integrated Science Book Series on 10th Jan, 2025, **Springer Nature.** ISBN 978-3-031-72078-9. https://doi 10.1007/978-3-031-72079-6

6. Usman S, Ellappan S, and **Mondal AC*.** Unraveling the molecular mechanisms of aberrant E3 ubiquitin ligases in the etiology of Parkinson's disease. Chapter-……; Page No……In the book titled "**Ubiquitin Proteasome System in CNS Neurodegenerative Diseases"** Editor: Sarika Singh. The book will be published by **Springer Nature.** ISBN ……

J. Papers/Posters Presented at Conferences/ Seminars/ Symposia

93) **A.C. Mondal** delivered an invited talk "Insights into the pathophysiology of Alzheimer's disease and a potential therapeutic target" at 22nd Joint International Conference-2026 at Jamia Hamdard University, New Delhi on 5-7th Feb, 2026.

92) **A.C. Mondal** delivered an invited talk as resource person entitled "Mechanistic insights into the Parkinson's disease and its management" at UGC MMTTC, Central University of Kerala, Kasaragod, Kerala, India on 15th Jan, 2026.

91) **A.C. Mondal** delivered an invited talk as resource person entitled "Brain ageing and it's impact on neurodegenerative diseases" at UGC MMTTC, Sant Gadge Baba Amravati University, Maharashtra, India on 24th Nov, 2025.

90) **A.C. Mondal** delivered an invited talk entitled "Neurobiology of Parkinson's disease and its therapeutic perspectives" at UGC Refresher course in Biology & Biotechnology MMTTC, JNU, New Delhi, India on 20th Nov, 2025.

89) **A.C. Mondal** presented an invited talk entitled "MST1 Selective Inhibitor Xmu-mp-1 Ameliorates Sporadic Alzheimer's Disease in a Rat Model by Modulating Hippo-Wnt Signaling Crosstalk" at PHYSICON-2025, AIIMS, Bhubaneswar, Odissa, India on 21st Nov, 2025.

88) **A.C. Mondal** presented an invited talk entitled “Understanding Alzheimer’s disease from a therapeutic perspective” at international conference on ‘Recent Advances In Neurochemistry and Neurological Disorders’ organized by Department of Pharmaceutical Sciences, Mohanlal Sukhadia University, Udaipur, Rajasthan, India on 08th Nov, 2025.

87) **A.C. Mondal** presented an invited talk entitled “Neuropharmacological interventions in Alzheimer’s disease: Molecular insights into the pathophysiology” at IBRO-APRC School on ‘Neuro-Pharmaco-Behavioural Studies Using Cell-Culture And Acute As Well As Chronic Animal Models’ organized by AINN, Amity University, Noida on 06th Nov, 2025.

86) **A.C. Mondal** presented an invited talk entitled “Current therapeutic landscape for neurodegenerative diseases” at an international conference SBVB-2025 organized by Sharda University, Greater Noida on 11th July, 2025.

85) **A.C. Mondal** presented an invited talk entitled “Role of Hippo Signaling inhibitor Xmu-mp-1 in a rat model of sporadic Alzheimer’s disease” at a national conference AIBSBRSD-2025 organized by SAGE University, Indore on 28th March, 2025. **(Awarded travel grants from the organizer).**

84) **A.C. Mondal** presented an invited talk entitled “Unravelling molecular mechanisms in neurodegenerative diseases and therapeutic approaches” at School of Life Sciences, JNU, on 23rd October, 2024.

83) **A.C. Mondal** presented a plenary talk entitled “Pharmacological therapies on Alzheimer’s disease” at international conference INCDAD-2024 organized by Kalasalingam University, 3rd August, 2024 at Krishnankoil, Tamilnadu. **(Awarded travel grants from the organizer).**

82) Rhea Subba & **A.C. Mondal** presented “Hyperglycemic zebrafish exposed to chronic unpredictable mild stress display oxidative damage in the brain: mitigation by chlorogenic acid” SiNAPSA Neuroscience Conference 2023 (SNC’23) held in Ljubljana, Slovenia from Sept 28th-30th, 2023. Slovenia. **(Awarded Int. travel grants from SNC’ 2023).**

81) **A.C. Mondal** presented an invited talk entitled “Investigations into the therapeutic potential of phytochemicals (Vanillin & Naringenin) in cellular and animal models of Parkinson’s disease” at a meeting jointly organized by Dr. Reddy’s Lab & Ignite Life Science Foundation on 4-5th July, 2023 at Hyderabad. **(Awarded travel grants from the organizer).**

80) Manas R. Sahu & **A.C. Mondal** presented “Treatment with novel Hippo Signaling inhibitor, Xmu-mp-1, ameliorates cognitive impairments in sporadic Alzheimer’s disease” in the XL annual meeting of Indian Academy of Neuroscience (IAN) on December 7-10, 2022 at North-Eastern Hill University, Shillong, India. **(Awarded travel grants by IAN).**

79) Manas R. Sahu & **A.C. Mondal** presented “Therapeutic effects of Hippo signaling inhibition in sporadic Alzheimer's disease: insights from in-vitro and in-vivo studies” in Neuroscience 2022, Society for Neuroscience (SfN), USA on Nov 12-16, 2022 (Online Presentation)

78) Sandeep & **A.C. Mondal** presented a poster "Oral treatment with the NADPH oxidase antagonist apocynin ameliorates pathological features of Parkinsonism in the Paraquat-induced rat model at "Neuroscience 2022, Society of Neuroscience (SfN)" on Nov 12-16, 2022 (Online presentation)

77) Manas R. Sahu & **A.C. Mondal** presented "Neuroprotective role of Hippo Signaling inhibitor, Xmu-mp-1, in a cellular model of Alzheimer's Disease" in the Southeastern Neurodegenerative Disease Conference at Bonita Springs, Florida, United States virtually on September 28-30, 2022. **(Awarded Int. travel grants from SENDCon).**

76) Rhea Subba & **A.C. Mondal** presented "The involvement of NRF2 in the brain of hyperglycemic zebrafish exposed to chronic unpredictable stress." in 10th International Congress of Neuroendocrinology on 7th - 10th August, 2022 at the Scottish Events Campus, Glasgow, Scotland. **(Awarded Int. travel grants from SERB-DST, GOI).**

75) Mir Hilal Ahmad & **A.C. Mondal** presented "Naringenin modulates paraquat-induced oxidative stress and mitochondrial dysfunction in a cellular model of Parkinson's disease (SH-SY5Y cells)" in FENS Forum held on July 9-13, 2022 at Paris, France. **(Awarded Int. travel grants from SERB-DST, GOI).**

74) Linchi Rani & **A.C. Mondal** presented "Neurobehavioral assessment of Vanillin in MPTP-induced mouse model of Parkinson's disease" in FENS Forum held on July 9-13, 2022 at Paris, France. **(Awarded FENS/ IBRO-PERC Int. travel grants from FENS forum-2022).**

73) Sushma Kumari & **A.C. Mondal** presented "Effect of Bacopa monnieri on amyloid-beta induced Alzheimer's disease-like pathological changes" in FENS Forum held on July 9-13, 2022 at Paris, France. **(Awarded FENS/ IBRO-PERC Int. travel grants from FENS forum-2022).**

72) Rhea Subba & **A.C. Mondal** presented "The consequences of concurrent stress and hyperglycemia on redox homeostasis in the adult zebrafish brain" in FENS Forum held on July 9-13, 2022 at Paris, France. **(Awarded FENS/ IBRO-PERC Int. travel grants from FENS forum-2022).**

71) Sandeep & **A.C. Mondal** presented "Apocynin administration ameliorates motor deficits in Paraquat-induced Parkinsonism at "36th European Neurology Congress 2022 on May 23, 2022 at Vienna, Austria. (Online)

70) **A.C. Mondal** presented "Cellular & animal models of Parkinson's disease: Rational into neuroprotective effect of Naringenin" in XXXII Annual conference of PSI held on March 14-16, 2022 at Berhampore Girl's College, Berhampore, West Bengal. Abstract page No-06. **(Awarded Prof. A. K. Mukherjee Memorial Oration-2021)**

69) Rhea Subba & **A.C. Mondal** presented "Simultaneous stress and D-glucose treatment causes hyperglycemia and induces oxidative stress in adult zebrafish brain" in 3rd Italian Zebrafish Meeting held on February 9-11, 2022 in the University of Naples Federico II, Naples, Italy.

68) **A.C. Mondal** presented an invited talk through webinar entitled “A Synthetic Pro-Drug Peptide Reverses Amyloid-β-Induced Toxicity in the cellular and Rat Model of Alzheimer's Disease” at 4th Int. New York Science Congress on 16th Jan, 2022. Abstract book proceedings (ISBN 978-605-71167-2-7) page No. 104.

67) **A.C. Mondal** presented an invited talk through webinar entitled “Neurobiology of Parkinson’s disease” at UGC-HRDC organized by Dept. of Physiology, University of Calcutta on 14th Jan, 2022.

66) **A.C. Mondal** presented an invited talk through webinar entitled “Naringenin alleviates paraquat-induced dopaminergic neuronal loss in SH-SY5Y cells and a rat model of Parkinson's disease” at 7th Int. Istanbul Scientific Research Congress, Istanbul, on 19th Dec, 2021. IISRC Book Proceedings (ISBN: 978-605-71167-1-0) Page No-64

65) **A.C. Mondal** presented an invited talk through webinar entitled “Molecular mechanisms of Parkinson’s disease and its model systems: Naringenin a new therapeutic lead” at Ramthakur College, Agartala, on 27th Nov, 2021.

64) **A.C. Mondal** presented an invited talk on “Parkinson’s disease, experimental models and new therapeutic approaches” at Amity University, Noida on 28th Sept, 2021 for **IBRO-APRC Associate School** on Advances in Neurodegenerative disorders and Therapeutics from 27th September to 01st Oct, 2021.

63) **A.C. Mondal** presented an invited talk via webinar entitled “Parkinson’s disease, experimental models and therapeutic approaches” at Ascension St. Mary’s Department of Neuroscience, Field Neuroscience Institute, Saginaw, Michigan-USA on 08th July, 2021.

62) **A.C. Mondal** presented an invited talk via a webinar entitled “Neurobiology of Parkinson’s disease, experimental models and therapeutic approaches” at Bhairab Ganguly College, Belghoria, Kolkata on 26th June, 2021.

61) **A.C. Mondal** presented an invited talk entitled “Neuroprotective role of a synthetic peptide targeting Alzheimer’s disease” at AIIMS, New Delhi for XXVIII IAN annual meeting on 20th Nov, 2019.

60) **A.C. Mondal** presented an invited talk entitled “Parkinson’s disease: New Insights and therapeutic opportunities” at Bankura Christian College, Bankura (W.B.) for XXXIst PSI Annual meeting & Conference on 15th Nov, 2019.

59) **A.C. Mondal** presented an invited talk on “The blood-brain barrier in brain homeostasis and neurological disorders” at Panjab University, Chandigarh on 8th Nov, 2019 for **IBRO-APRC Associate School** on Basic Physiology to Neurological disorders from November 04-09, 2019.

58) S. Kumar and **A.C. Mondal** presented a paper entitled "Synthetic Pro-Drug Peptide (PDp) ameliorates cognitive dysfunctions, hippocampal neurodegeneration, and neuro-inflammation: involved in the pathogenesis of $A\beta_{1-40}$ induced rat model of Alzheimer's disease” at ICNDT at NIPER, Gandhinagar, Gujarat, from 24-26 October 2019. Abstract Pg-158

57) S.K. Anand and **A.C. Mondal** presented a paper entitled "The cellular and molecular attributes of adult neurogenesis and brain regeneration in zebrafish (Danio rerio)" at SFN, Chicago, IL, USA from 19th to 23rd of October, 2019. **(Awarded Int. travel grants from SERB).**

56) **A.C. Mondal** presented an invited talk on “Parkinson’s disease, its different experimental models, and current therapeutic approaches” at ISLS-BHU, Varanasi on 12th Sept, 2019 for **IBRO-APRC Neuroscience School** on Molecular Basis of Neuroinflammation Mediated Neurodegeneration from September 01-14, 2019.

55) S.K. Anand and **A.C. Mondal** presented a paper entitled "Adult neurogenesis and brain regeneration in zebrafish (Danio rerio)" at 2019 World Neuroscience and Psychiatry Conference on 11th Sept, 2019 at Singapore. **(Awarded Int. travel grants).**

54) **A.C. Mondal** presented an invited talk entitled “Basics of Parkinson’s disease and modern therapeutic approaches” at DIPSAR, Pusph Vihar, New Delhi on 12th March, 2019 for AICTE approved XXVIII QIP on “Recent Advances in Pharmaceutical Sciences”.

53) M.H. Ahmad and **A. C. Mondal** presented a paper at International Conference on Advances in Zoological Research entitled “Neuroprotective role of naringenin in substantia nigra and striatum in paraquat induced rat model of parkinsonism” on 9-10 March, 2019 at AMU, Aligarh (U.P.). Page No. 162 (Abstract)

52) S.K. Anand and **A.C. Mondal** presented a paper entitled "BDNF/TrkB system mediates the reparative brain regeneration in zebrafish (Danio rerio)" at EMBO Conference on Molecular neuroscience on 04th to 7th Feb, 2019 organized by NCBS, Bangalore.

51) **A.C. Mondal** presented an invited talk entitled “Parkinson’s disease and therapeutic approaches” at BIT, Mesra, Ranchi on 16th Jan, 2019.on AICTE approved QIP on the topic “Cutting Edge & Emerging Technologies in Pharmaceutical Education and Research”.

50) S. K. Anand and **A.C. Mondal** presented a paper entitled "Involvement of BDNF in mediating the reparative regeneration in adult zebrafish (*Danio rerio*) brain" at 38th Annual Scientific Meeting of the Australasian Neuroscience Society", Brisbane, Queensland, Australia, organized by the Australasian Neuroscience Society (ANS) from 3rd to 6th, Dec, 2018. **(Awarded Int. travel grants).**

49) **A.C. Mondal** presented an invited talk entitled “*Bacopa monnieri* attenuates paraquat induced toxicity in *Drosophila* by inhibiting apoptosis through redox stabilization and improved mitochondrial function” at PHYSIOCON-2018 Conference at Serampore College, on 22-24th Nov, 2018. Page No. 67 (Abstract)

48) **A.C. Mondal** presented an invited talk entitled “Alzheimer’s disease: Fundamental concepts and therapeutic outcomes of β- breaker peptide” at ICREB-2018 Int. Conference at GGV, Koni, Bilaspur (CG), on 29-30th Oct, 2018. Page No. 127 (Abstract)

47) **A.C. Mondal** presented an invited talk entitled “Prodrug peptide: A potential therapeutic agent for treatment of Alzheimer’s disease at AIIMS, Rishikesh on 15th Oct, 2018.

46) S.K. Anand and **A.C. Mondal** presented a paper “Involvement of BDNF/TrkB signaling in regulation the injury induced regeneration response in adult zebrafish (Danio rerio) brain” at 22nd Int. Conference on Neurology & Neurophysiology, Rome, Italy on 23-24 April, 2018. J. Neurol Neurophysiol. 2018, Volume-9, Page No. 74 (Abstract) (DOI: 10.4172/2155-9562-C2-065) **(Awarded Int. travel grant & best poster)**

45) S.K. Anand and **A.C. Mondal** presented a paper “TrkB receptor antagonism inhibits stab injury induced proliferative response in adult zebrafish (Danio rerio) brain” at Biosparks, SLS, JNU, New Delhi on 23-24 Feb, 2018. Page No. 22 (Abstract)

44) **A.C. Mondal** presented a paper “A peptide based pro-drug ameliorates amyloid beta induced neuronal apoptosis in in vitro SH-SY5Y cell” at World Neurocongress-2017, organized by IBRC and IAN, Aligarh Muslim University, Aligarh on 09-10 Dec, 2017. Souvenir cum Abstract Book, Page No. 52 (Abstract).

43) **A.C. Mondal** presented a paper “Neuroprotective and antioxidative effects of Bacopa monnieri on CUS induced model of depression in rat” at ICBAFM-2017: 2nd International Conference on Biotechnological advances in free radical biology and medicine-2017, organized by Dept. of Bioscience, Integral University, Lucknow on 23-25 Jan, 2017. Proceedings of ICBAFM-2017, Page No. 23 (Abstract).

42) **A.C. Mondal** presented a paper “Cognitive enhancement and neuroprotective effects of Bacopa Monnieri in Alzheimer’s disease model” at PHYSIOCON-2016: National Conference on Classical & Molecular approaches to life style management to environmental changes, organized by Dept. of Physiology, Midnapore College on 18-20 Nov, 2016. Proceedings of PHYSIOCON-2016, Page No. 60 (Abstract).

41) S. Kumar, S Hazra, **A.C. Mondal** presented a paper “Synthetic paratope ameliorating Amyloid beta induced neurotoxicity in rat brain: Implication for drug designing of Alzheimer’s disease. 1st Regional Science Congress on13-14 Nov, 2016 Abstract pg No-325

40) **A.C. Mondal** presented a paper “Effects of β-sheet breaker α/β peptide against amyloid β-induced neuronal apoptosis in human neuroblastoma cells SHSY5Y cells” at IABMS-2016: National Conference on “on current advances in integrated biomedicine for healthcare, Organized by Shobhit University on 3-6 Nov, 2016. Proceedings of IABMS-2016, Page No. 54 (Abstract). **[Awarded Dr. A. Namasivayam award]**

39) **A.C. Mondal** presented a paper “Effects of chronic foot shocks on nerve growth factor content in rat brain” at Neurocon-2015: International Conference on “Development, Degeneration and Regeneration of Neurons: Neurochemistry to Clinical Neurology, Organized by CSIR-IICB, IPGME&R & ICARE Institute of Medical Science & Research on 7-10 Jan, 2015. Proceedings of Neurocon-2015, Page No. 19 (Abstract).

38) S Kumar, S Hazra, **A.C. Mondal** presented a paper “Resveratrol, a Phytoalexin has a Neuroprotective Role in Animal Model of Alzheimer Disease” Neurocon-2015 at International Conference on Neurodegenerative and Neurodevelopmental Disorders:

Translational Aspects, Organized by CSIR-IICB, IPGME&R & ICARE Institute of Medical Science & Research on 7-10 Jan, 2015. Proceedings of Neurocon-2015, Page No. 61 (Abstract).

37) S Hazra, S Kumar, **A.C. Mondal** presented a paper "Chronic administration of Bacopa Monniera increases BDNF protein and mRNA expressions: a study in CUS induced animal model of depression" Neurocon-2015 at International Conference on Neurodegenerative and Neurodevelopmental Disorders: Translational Aspects, Organized by CSIR-IICB, IPGME&R & ICARE Institute of Medical Science & Research on 7-10 Jan, 2015. Proceedings of Neurocon-2015, Page No. 58 (Abstract).

36) **A.C. Mondal** presented a paper "Effects of chronic multiple stress on learning and memory and the expression of Fyn, BDNF, TrkB in the hippocampus of rats" on PHYSICON-2014 at Berhampore Girls College on 19-21 December, 2014. Proceedings of PHYSICON-2014, Page No. 20 (Abstract)

35) S Kumar, S Hazra, **A.C. Mondal** presented a paper "Chronic Administration of Bacopa Monnieri Increases Expression Level of TrkB, Erk1/2, p-Erk ½ and Ameliorates Depression Like Behavior of Rats" in PHYSICON-2014 at Berhampore Girls College on 19-21 December, 2014. Proceedings of PHYSICON-2014, Page No. 85 (Abstract)

34) **A.C. Mondal** presented a paper **"**A study on evolution of anxiolytic-antidepressant activity of Bramhi: CUS induced animal model of depression*"* on International Seminar on Molecular Biology and its applications at Jadavpur University, Kolkata on 14th & 15th February, 2014. Proceedings of Mol Biol & its Applications-2014, Page No. 27 (Abstract)

33) S Kumar, R Banerjee, S Hazra, **A.C. Mondal** presented a paper "Neurotrophins: the positive regulator of Alzheimer's Disease" on International Seminar on Molecular Biology and its applications at Jadavpur University, Kolkata on 14th & 15th February, 2014. Proceedings of Mol Biol & its Applications-2014, Page No. 57 (Abstract)

32) **A.C. Mondal** presented a paper "Brain-derived neurotrophic factor and tyrosine kinase B receptor signaling in post-mortem brain of teenage suicide victims" on Kolkata Neuroscience Conference Organized by CSIR-IICB, IPGMER & Manovikas Kendra on 31 Jan-01 Feb, 2014. Proceedings of KNC-2014, Page No. 22 (Abstract)

31) S Kumar, R Banerjee, S Hazra, **A.C. Mondal** presented a paper "Influences of CMS on behavioral and neurotrophins levels in rat hippocampus" on Kolkata Neuroscience Conference Organized by CSIR-IICB, IPGMER & Manovikas Kendra on 31 Jan-01 Feb, 2014. Proceedings of KNC-2014, Page No. 25 (Abstract)

30) R. Banerjee, AK Ghosh, B Ghosh & **A.C. Mondal:** presented a paper **"**Dysregulation of Neurotrophins mediated signaling milieu in the Hippocampus from Suicide: An Analysis in Human Postmortem Brain" on XX World Congress on Parkinson's Disease and related disorders, Organized by Kenes International, Switzerland held on 8-11 December, 2013, Geneva, Switzerland. **[Travel Grant awarded to R. Banerjee]**

29) **A.C. Mondal** presented a paper "Chronic administration of BM increases BDNF protein and mRNA expressions: a study in CUS induced animal model of depression" on International Symposium on "Emerging Trends and Challenges in Neuroscience"

organized by IAN at Allahabad held on 25-27 Oct, 2013. Annals of Neurosciences 20: (Suppl).2013, Page No. 10 (Abstract)

28) R. Banerjee, AK Ghosh, B Ghosh & **A.C. Mondal:** presented a paper "Role of neurotrophins in pathophysiology of suicide" on International Symposium on "Emerging Trends and Challenges in Neuroscience" organized by IAN at Allahabad held on 25-27 Oct, 2013. Annals of Neurosciences 20: (Suppl).2013, Page No. 34 (Abstract) **[Awarded Tulsibai Somany prize for best paper]**

27) S. Hazra, R. Banerjee, S. Kumar & **A.C. Mondal:** presented a paper "Bacopa Monniera treatment reverses CUS induced depressive like behavior by increasing expression of neurotrophins in rat brain" on International Symposium on "Emerging Trends and Challenges in Neuroscience" organized by IAN at Allahabad held on 25-27 Oct, 2013. Annals of Neurosciences 20: (Suppl).2013, Page No. 61 (Abstract)

26) **A.C. Mondal** presented a paper "Reduced Expression of Hippocampal BDNF, NGF and their Cognate Receptors in Postmortem Brain of Suicide Victims" on XXI World Congress of Neurology (WCN-2013) Organized by Kenes International, Switzerland at Vienna, Austria held on 21-26 Sept, 2013. Journal of the Neurological Sciences 333 (2013) e1–e64, Page No. e715 (Abstract) doi: 10.1016/j.jns.2013.07.2465 **[Travel Grant awarded to Dr. A.C. Mondal]**

25) **A.C. Mondal**: presented a paper "*Bacopa monniera* reverses the effects of chronic unpredictable stress on behavior, the HPA axis, BDNF protein and mRNA expressions" on a National Seminar Organized by VURSA, VU, Midnapore, held on 19 Mar, 2013. Proceedings of Research Methodology in Higher Education, Page No. 34 (Abstract)

24) R. Banerjee, S. Hazra & **A.C. Mondal**: presented a paper "Neurochemical aspects of depression in postmortem brain of suicide victims". at Neurocon- 2013 International Conference on Neurodegenerative and Neurodevelopmental Disorders: Translational Aspects, Organized by IPGME&R, Kolkata, held on 17-20 Jan, 2013. Proceedings of Neurocon-2013, Page No. 72 (Abstract)

23) **A.C. Mondal** presented a paper "Effects of *Bacopa monnieri* on chronic unpredictable stress-induced changes in Behavior and Brain BDNF in rats". at Neurocon-2013 International Conference on Neurodegenerative and Neurodevelopmental Disorders: Translational Aspects, organized by IPGME&R, Kolkata, held on 17-20 Jan, 2013. Proceedings of Neurocon-2013, Page No. 71 (Abstract)

22) S. Hazra, R. Banerjee & **A.C. Mondal**: presented a paper "Evaluation of Antidepressant activity of *Bacopa monnieri* in rat: A study in Animal Model of Depression" 100th Indian Science Congress Association Conference, organized jointly by ISCA & University of Calcutta, held on 03-07 Jan, 2013. Proceedings of 100th ISC, Part-II, Page No. 265 (Abstract)

21) R. Banerjee, S. Hazra & **A.C. Mondal**: presented a paper "Effect of chronic inescapable foot shock and antidepressant treatment on BDNF/TrkB levels in rat Hippocampus." 100th Indian Science Congress Association Conference, organized jointly by ISCA & University of Calcutta, held on 03-07 Jan, 2013. Proceedings of 100th ISC, Part-II, Page No. 264 (Abstract)

20) **A.C. Mondal** presented a paper “Reduced Expression Profile of Neurotrophins and their Cognitive Receptors in the Hippocampal Region of Postmortem Suicidal Brain” 100th Indian Science Congress Association Conference, organized jointly by ISCA & University of Calcutta, held on 03-07 Jan, 2013. Proceedings of 100th ISC, Part-II, Page No.123 (Abstract)

19) **A C. Mondal** participated the Twin Workshops Programme on_Effective Grant Writing Skills & Effective Management of IPR Sponsored by Department of Biotechnology Ministry of Science & Technology, Government of India and Biotechnology Industry Research Assistance Council on 17-18 July, 2012 at Kolkata

18) **A.C. Mondal** presented a paper “Stress: The negative modulator of NGF” 99th Indian Science Congress Association Conference, organized jointly by ISCA & KIIT University Bhubaneswar, held on 03-07 Jan, 2012. Proceedings of 99th ISC, Part II, Page No. 100 (Abstract)

17) **A.C. Mondal** presented a paper “Effect of chronic inescapable foot shocks and Antidepressant treatment on PI-3 kinase and MAP Kinase signaling in rat brain” in 23rd Annual National Conference of PSI- PHYSICON-2011, NRI Medical College, Guntur, (A.P.) held on 21-23 December, 2011, Proceedings of PHYSICON-2011, Page 121 (Abstract) 2011 **[Awarded best Abstract presentation and received a certificate & cash prize]**

16) R. Banerjee, A. K. Ghosh, B. Ghosh & **A.C. Mondal**: presented a paper “Impairment of ERK1/2 and PKC-delta mediated Signal Transduction in the Hippocampus in LH model of depression is sensitive to Chronic AD treatment” in UGC Sponsored National Level Seminar on exploration of biological processes through chemical sciences, N.D. College, Howrah held on 07-08 December, 2011, Proceedings of UGC Sponsored National Seminar, Page 34-35 (Abstract)

15) **A.C. Mondal** presented a paper “Stress: The Negative Modulator of NGF” in UGC Sponsored National Level Seminar on exploration of biological processes through chemical sciences, N.D. College, Howrah held on 07-08 December, 2011, Proceedings of UGC Sponsored National Seminar, Page 33 (Abstract)

14) R. Banerjee, A. K. Ghosh & **A.C. Mondal**: presented a paper “Stress induced dysregulation of BDNF-TrkB signaling cascade in hippocampus of LH model of rats” in International Conference on New Horizons in Biotechnology (NHBT-2011), Trivandrum held on 21-24 Nov, 2011, Proceedings of NHBT, Page 268 (Abstract)

13) **A.C. Mondal** presented a paper “Stress induced dysregulation of BDNF-TrkB signaling cascade in hippocampus of LH model of rats” in International Conference on Molecules to system Physiology: 100 Years Journey, Kolkata held on 21-23 Sept, 2011, Proceedings of ICMSP 100, Page 78 (Abstract)

12) R. Banerjee, **A.C. Mondal** & M. Das: presented a paper “Effects of long-term stress recovery on behavioral, physiological and neurochemical aspects in male and female rats” in 18th West Bengal State Science and Technology Congress, organized jointly by WBSS&T & RKM residential College Narendrapur, Kolkata held on 28 Feb - 01 March, 2011, Proceedings of 18th WBSS&T, Page 175 (Abstract)

11) R. Banerjee & **A.C. Mondal**: presented a paper "Differential Gender Specific Vulnerability to Depression Induction in Learned Helpless model of rat" 98th Indian Science Congress Association, organized jointly by ISCA & SRM University Chennai, held on 03-07 Jan, 2011, Proceedings of 98th ISC, Section III, Page 89 (Abstract)

10) **A.C. Mondal** presented a paper "Single and repeated stress induced alteration of neurotrophins in rat brain: Role in learned helpless behavior" 98th Indian Science Congress Association Conference, organized jointly by ISCA & SRM University Chennai, held on 03-07 Jan, 2011. Proceedings of 98th ISC, Part II, Page No. 138 (Abstract)

9) **A.C. Mondal** presented a paper "Effect of learned helplessness on plasma levels of monoamines in animal model of depression" An International Conference on Integrative Physiology: Modern perspective and platinum Jubilee Celebration of PSI, Organized by PSI, Science City, Kolkata, held on 12-14 Nov, 2009. Proceedings of 21st Annual Conference of PSI, Page No. 290 (Abstract)

8) **A.C. Mondal** presented a paper "Volume of Red blood cell to Pubescent Athletes: A comparative Study" to the UGC Sponsored State level Seminar on "Recent Trends in Sports Physiology" organised by the Department of Physiology, Bhairab Ganguly College, Belghoria, Kolkata-56 held on the 10th December, 2008. Proceedings of the Seminar, Page No 52 (Abstract)

7) **A.C. Mondal** presented a paper "Altered expression of PKC in learned helpless (LH) rats: A study in the behavioral model of depression". A State level UGC-Sponsored Seminar, organized by the Dept. of Physiology, RPMC, 16-17 Dec, 2005. Proceedings of the Seminar, Page No. 74-78 (full paper)

6) **A. C. Mondal**, H.S. Rizavi, P.K. Shukla, X. Ren, G.N. Pandey & Y. Dwivedi: Single and repeated stress differentially regulate protein kinase C in brain of learned helpless Rats. 34th Soc for Neuroscience meeting, San Diego, USA, Oct 23-27, 2004

5) P.K. Shukla, **A.C. Mondal**, H.S. Rizavi, G. Payappagoudar, S. Prakasam, G.N. Pandey, & Y. Dwivedi: Antidepressant effects on HPA-axis mediated changes in protein kinase A in rat brain. 34th Soc for Neuroscience meeting, San Diego, USA, Oct 23-27, 2004

4) Y. Dwivedi, H.S. Rizavi, **A.C. Mondal**, R.R. Conley & G.N. Pandey: Neurotrophic factors in postmortem brain of suicide victims. 34th Soc for Neuroscience meeting, San Diego, USA, Oct 23-27, 2004

3) Y. Dwivedi, H.S. Rizavi, **A.C. Mondal,** G.V. Payappagoudar, R.R. Conley & G.N. Pandey: Altered expression of RAP1 in postmortem brain of suicide victims. 43rd Annual Meeting of American College of Neuropsychopharmacology, Peurto Rico, USA, 29, Suppl. 179, 2004

2) Y. Dwivedi, **A.C. Mondal**, H. Rizavi, J. Lyons & G. N. Pandey: Effect of learned helplessness on catalytic activity and expression of Phospholipase C in rat brain. 33rd Soc. For Neuroscience, New Orleans, USA, Nov 8-12, 2003

1) **A.C. Mondal**, B. Saha, S. Banerjee & P.S. Dasgupta: "Dopamine an endogenous regulator of Acute Lymphocytic Leukemia (ALL)": 87th Indian Science Congress meeting from 3rd Jan to 7th Jan, 2000 at Pune University, India. Proceedings of 87th ISC, Young

Scientist Award Division, Page No. 56-57 (Abstract) **[Selected for Young Scientist Award by ISCA]**

K. Refresher Course, Methodology, Workshops, Training, Faculty Development Programs, etc. attended.

Sl. No.	Name of Course attended	Sponsoring Institution	Duration From___ to___
1	Orientation Programme	Jadavpur University, Kolkata	09/06/2008 to 05/07/2008
2	Refresher Course in Life Science	The University of Burdwan, Burdwan	10/10/2014 to 30/10/2014
3	Refresher Course in Life Science	The University of Calcutta, Kolkata	27/03/2015 to 20/04/2015

L Professional recognition, Awards, Fellowships received

- Elected fellow, **International Union of Physiological Sciences Academy (FIUPSA)- 2025**
- Elected fellow, **Royal Society of Biology (FRSB)- 2025**
- Elected Fellow, **West Bengal Academy of Science & Technology-2022** (FAScT)
- Received **Prof. A. K. Mukherjee Memorial Oration Award- 2021** from The Physiological Society of India.
- As **Ambassador** from Bentham Science Publishers, UAE
- Received **Dr. A. Namasivayam Award** by IABMS, 04th Nov, 2016
- Received major project by **DBT, 2013, 2016, 2019** (Ministry of Science & Technology), Govt. of India).
- **R**eceived / **A**warded Major Research Project from **UPE II** (JNU).
- **A**warded **International Travel Grant** by UGC to attend XXI World Congress of Neurology at Vienna, Austria, 2013.
- **A**pproved **Ph.D. guide** of University of Calcutta and Jadavpur University
- **A**warded **International Travel Grant** by UGC to attend XIX World congress of Parkinson's and related disorders at Shanghai, China, 2011.
- **R**eceived / **A**warded Major Research Project from **LSRB/ DRDO** (Ministry of Defense, Govt. of India).
- **B**est **P**aper **P**resented at **PHYSICON-2011,** 23rd Annual conference of PSI, NRI Medical College, Guntur, (A.P.). **Awarded Dr. K. Anji Reddy Cash Prize**
- **A**warded Major Research Project Sponsored by **SERB** (**DST** Govt. of India).
- **A**warded Minor Research Project from **UGC** (Ministry of HRD, Govt. of India).
- May 2005 –2015 **A**sst. **P**rof. in **P**hysiology (**Sr. Scale**) at RPM College, (Affiliated to University of Calcutta, Kolkata).
- January 2003 – March 2005 **P**ost-**D**octoral **R**esearch **A**ssociate, (with Dr. Y. Dwivedi) in the **D**epartment of **P**sychiatry, **U**niversity of **I**llinois at **C**hicago (**UIC**), Chicago, IL-60612, USA.

- July 2000 – June 2002 SRF, Awarded by the STBA Laboratory, Chittaranjan National Cancer Institute (**CNCI**) Kolkata-700 026.
- January, 2000 Selected for **Y**oung **S**cientist **A**ward from 87th Indian Science Congress Association held at Pune.
- July 1998 –June 2000 JRF Awarded by the STBA Laboratory, Chittaranjan National Cancer Institute (**CNCI**) Kolkata-700 026.
- **Q**ualified GATE & NET in 1998

M. Research supports / Projects received

10. DBT (Ministry of Science & Technology, Govt. of India) funded Research Project entitled "Calcium-permeable ion channels as therapeutic targets to manage neuropathic pain" **Rs. 222.3616 lakhs** (Duration of project 36 months) **[BT/PR47726/CMD/150/26/2023] dated 28th Dec, 2023 [Ongoing].**

9. DBT (Ministry of Science & Technology, Govt. of India) funded Research Project entitled "A Study on Enriched Bacopa monnieri active component delivery targeting Glioblastoma and associated Neurocognitive Dysfunction" **Rs. 95,06,508/-** (Duration of project 36 months) **[BT/PR38493/TRM/120/465/2020] dated 22nd Nov, 2023 [Ongoing].**

8. Eyestem Research Private Limited Funded Research Project entitled "Assessment of therapeutic role of induced pluripotent stem cell (iPSC)-derived unmodified and engineered neural progenitor cells (NPCs), dopaminergic neurons transplanted in 6-OHDA and Paraquat rat model of Parkinson's disease (PD)" (Duration of project 12 months). **[File No: ERPL/08/2023-24] dated 28/02/2024 Rs. 14.80 lakhs [Completed].**

7. DBT (Ministry of Science & Technology, Govt. of India) funded Research Project entitled "To Investigate Anti-Amyloidogenic properties of Anti-histamine drugs on alpha synuclein and its cellular consequence on autophagy and inflammatory pathways involved in Parkinson's disease. **Rs.57,46,929/-** (Duration of the project 36 months) [**BT/PR32907/MED/122/227/2019 dated 11th Jan, 2021] [Completed].**

6. DBT (Ministry of Science & Technology, Govt. of India) funded NER Twinning Research Project entitled *"*Effect of naturally occurring as well as synthetic cyclic molecules on inhibition of beta amyloid aggregation in vivo and in vitro*"* **Rs.71,67,000/-** (Duration of the project 36 months). **DBT Ref. No. [BT/PR16164/NER/95/88/2015 dated 09th Jan, 2017. [Completed].**

5. UPoE-II, (UGC) funded research project titled "Role of β-Breaker di-peptide for amyloid disruption in Alzheimer's Disease: A novel therapeutic approach in *in vitro* model" Rs. 11,00000/- (Duration of the project 32 months). **UPoE II Ref No. 247 dated 01-08-2016 [Completed]**

4. DBT (Ministry of Science & Technology, Govt. of India) funded NER Twinning Research Project titled "Arresting Pre-Fibriller Aggregates of Alzheimer's Amyloid by Synthetic Antibodies" **Rs. 56,53,000/-** (Duration of the

project 36 months). **DBT Ref. No. [BT/347/NE/TBP/2012 dated 21-03-2013] [Completed]**

3. LSRB/ DRDO (Ministry of Defense, Govt. of India) funded Major Research Project entitled: "Role of MAP Kinase in behavioral model of depression: Effect of chronic antidepressant treatment": **Rs. 16,99,125/-** (Duration of the project 36 months). **LSRB Ref. No. [DLS/81/48222/LSRB-246/EPB/2012 dated 22-03-2012] [Completed]**

2. SERB (Ministry of Science & Technology, Govt. of India) funded Major Research Project entitled: "Role of neurotrophins in stress and depression": **Rs. 23,94,400/-** (Duration of the project 36 months). DST **Ref. No. [SR/SO/HS/0057/2009 dated 30-12-2009] [Completed]**

1. UGC sponsored Minor research project (MRP)- Role of Monoamine Neurotransmitters in Learned Helplessness Behavior and Depression in Rat Model. **Rs. 1,36,000/-** (Duration of the project 18 months). UGC **Ref. No.** [**F.PSW-040/08-09 dated 12-12-2008] [Completed]**

Projects received as a mentor

4. Molecular cross talk between Wnt beta-catenin and sonic hedgehog (SHH) signaling pathways in neuroblastoma: Role of Safranal (Crocus sativus) as a chemopreventive agent by Mir Hilal Ahmad (SRF). **ICMR approved the project on 10.05.2019 vide letter No. 45/7/2019/MP/BMS. [Completed]**

3. Deciphering the novel proteins in depression and its interaction with sonic hedgehog (SHH) signaling in prenatally stressed (PNS) rats: Role of cannabidiol (CBD) as antidepressant by M. Fatima (RA)**. ICMR approved the project on 26.08.2019 vide letter No. 2019-4703/CMB-BMS. [Completed]**

2. Effect of maternal chronic unpredictable mild stress (CUMS) on sonic hedgehog signaling, BDNF expression and DNA damage in the hippocampus and pre frontal cortex of neonatal and adult offspring (Ref No: 252016001254) by Dr. Mahino Fatima. **SERB approved the above-mentioned project on 06/07/2016 vide file No. PDF/2016/000670 [Completed]**

1. To study and elucidate common molecular cross talk between Parkin, p53 and JNK mediated apoptosis in both familial and sporadic Parkinson's disease using Drosophila model (Ref No. 252016001464) by Dr. Saurabh Srivastav. **SERB approved the above-mentioned project on 06/07/2016 vide file No. PDF/2016/000892 [Completed]**

Research Projects submitted as PI & Co-PI

1. Research project proposal submitted to ANRF-IRG entitled "The potential role of Valeric acid in mitigating Alzheimer's disease: Targeting REM sleep loss and

cognitive dysfunction" on 29/07/2025. The reference id of proposal is ANRF/IRG/2025/000427/ LS.

2. Research project proposal submitted to ANRF-IRG entitled "Role of pericytes in modulating blood brain barrier (BBB) permeability and susceptibility to SARS-CoV-2 using in vitro and in vivo models" on 29/07/2025. The reference id of proposal is ANRF/ARG/2025/009046/ LS. With Vikas Yadav (Shortlisted/ Rejected)

3. Research project proposal submitted to DBT entitled "Engineering Précised Nano formulations for the Detection and Therapeutic-Targeting of Alzheimer's Disease Using In Vitro and In Vivo Studies" with Karunakar Kar-2025

4. Research project proposal submitted to ICMR entitled "Role of Inflammasome in diabetes associated neurodegeneration: A Therapeutic approach" on 26/03/2025. The reference id of proposal is IIRPSG-2025-01-01859. (Rejected)

5. Research project proposal submitted to STRIDE-UGC entitled "Evaluation of therapeutic efficacy of Bacoside-A on Amyloid-β induced cellular and rat model of Alzheimer's disease" for 2019-20 on 30/09/2019. Ref. No. C2/2019/03178 (Shortlisted)

8. Ph.D. Supervision: 05 (PPK, Sehar, Surendar, Sana, Rama, Shariq)

(Eleven students have already been awarded Ph.D. degree from Jadavpur University, University of Calcutta, and Jawaharlal Nehru University in 2014, 2017, 2019, 2021, 2022 & 2023. Three students are currently enrolled for Ph.D. degree and undergoing supervision).

1. **Thesis Title:** Evaluation of expression of Neurotrophins and their Receptors in rat brain: An analysis of the Molecular basis of Depression. [Reg. No. D-7/SC/1015/11 dated 29/09/2011]. Ph.D. Degree awarded on 24. 12. 2014 [Ritabrata Banerjee]

2. Thesis Title: Evaluation of *Bacopa monniera* on chronic unpredictable stress induced behavioral and molecular changes: a study in rat model of depression. [Reg. No. 5436/Ph.D. (Sc)/Proceed/2014 dated 07th Aug, 2014]. Ph.D. Degree awarded on 17.10. 2017. [Somoday Hazra]

3. Thesis Title: Arresting Pre fibrillar Aggregates of Alzheimer's amyloid by synthetic antibodies. [Reg. No. 109/16/Inst.Sc./24, Date: 11/5/2016]. [Ph.D. degree awarded on 05.12.2019]. [Sourav Kumar]

4. Thesis Title: Studies on Adult Neurogenesis and Brain Regeneration in Zebrafish: Cell Proliferation in Telencephalon and its Molecular Mechanism. [Reg. No. 28524], [Ph.D. degree awarded on 24.08.2021] [Surendra Kumar Anand]

5. Thesis Title: Amelioration by Nicotine induced testicular damage by Folic acid and vitamin $B_{12.}$ Reg No. 7551/Ph.D. (Sc.) Proceed/2014 dated 07.11.2014 [Ph.D. degree awarded in 2022 by the University of Calcutta [Dibyendu Ray].

6. Thesis Title: Rapid Eye Movement sleep regulation in rats by modulation of ventral tegmental dopaminergic neurons [Reg. No. 23644] [Enrollment No. 15/30/ML/013], [Ph.D. degree awarded on 26.10.2023] [Deshdeepak Ratna].

7. Thesis Title: To explore the role of Vanillin in intervening pathophysiology related to Parkinson's disease [Reg. No. 150366. [Enrollment No. 17/30/ML/018] [Ph.D. degree awarded on 15.03.2024] [Linchi Rani].

8. Thesis Title: To study the role of *Bacopa monnieri* in blocking amyloid-β induced pathophysiological changes in Alzheimer's disease. [Reg. No. 150099. [Enrollment No. 17/30/ML/018] Ph.D. degree awarded on 15.03.2024 [Sushma].

9. Thesis Title: Assessment of neuroprotective potential of Naringenin and its associated mechanisms in human neuroblastoma cells and a rat model of Parkinson's disease. [Reg. No. 00330026]. [Ph.D. degree awarded on 07.08.2024] [Mir Hilal Ahmad].

10. Thesis Title: Role of RASSF/MST-mediated Hippo signaling pathway in the pathogenesis of Alzheimer's disease. [Reg. No. 72140]. [Enrollment No. 18/30/ML/023] [Ph.D. degree awarded on 23.09.2024] [Manas Ranjan Sahu].

11. Thesis Title: Role of NRF2/KEAP1 system in concurrent hyperglycemia and chronic stress model in zebrafish. [Reg. No. 70521]. [Enrollment No. 18/30/ML/018] [Ph.D. degree awarded on 23.09.2024] [Rhea Subba].

12. Thesis Title: ~~Evaluation of the neuroprotective effect of Apocynin against paraquat-induced Parkinsonism. [Enrolment No. 2141005825] Ph.D. synopsis approved by RAC. [Date of confirmation: 07/09/2021] [Sandeep XXXX]~~

13. Thesis Title: Study on the potential therapeutic effects of Biochanin A in a rat model of chronic constriction injury (CCI)-induced neuropathic pain. [Enrolment No. 22/30/MF/004] Ph.D. synopsis approved by RAC. [Date of confirmation: 05/03/2024] [Punit Prasanna Kujur].

9. **M.Sc. students (14) Dissertation/Projects:** (Ms. Anamika Singh, Ms. Rhea Subba & Mr. Manuvendra Nandan, Ms. Aditi Thakur & Mr. Divyam Singh, Mr. Sandeep, Md. Abu Nasar, Anjali, Surbhi Mishra (Biochemistry, JMI), Surbhi Bihani, (IIT-Roorkee), Roshni Sherpa, Payyavula Ragini, Priyanka Biswal, Palak Gupta, Rubi, Sunidhi Bisht, Abhin V Raj (Summer students), Deeksha Mathur,

10. Awards in Mentorship

- Dr. Manas R. Sahu awarded post-doctoral fellowship at the Dept. of Pathology and Medical Oncology, Columbus, the Ohio State University, OH 43210, USA.
- Dr. Manas R. Sahu awarded Best SLS research paper at JNU, New Delhi.
- Mr. Manas R. Sahu awarded INYAS "Saransh-22" thesis presentation competition from INSA, Delhi.
- Dr. D. Ratna awarded post-doctoral fellowship under Dr. Francis Chase's lab at the UM-MIND, Department of Psychiatry, University of Maryland, School of Medicine, Baltimore, MD 21201 USA.

- Dr. D. Ray serving as Associate Professor in Physiology at Serampore College, Serampore, Distt-Hooghly, West Bengal-712201
- Dr. S K. Anand awarded post-doctoral fellowship at Dept. of Pathology and Cell Biology, the University of South Florida, Tampa, FL, USA.
- Dr. S. Kumar awarded post-doctoral fellowship at Department of Molecular Cell Biology and Biotechnology, Tel-Aviv University, Israel.
- Dr. S. Srivastav awarded post-doctoral research associate under Dr. Michael Wangler, Department of Molecular & Human Genetics, Duncan Neurological Research Institute, Baylor College of Medicine, Houston, Texas, USA.
- Dr. S. Hazra awarded Research Scientist Position under Prof. York Winter at Institute of Biology, Cognitive Neurobiology, Humboldt-Universität zu Berlin, Berlin-10115, Germany.
- Dr. R. Banerjee awarded Post doctoral research associate at the University of Illinois at Chicago (UIC), Chicago, USA.
- Dr. R. Banerjee, got selected Fulbright-Nehru DR Fellowship for 2013-14.
- Dr. Banerjee received the Young Scientist Award from Indian Academy of Neuroscience (IAN) 2013.
- Dr. Banerjee awarded International Travel Grant -XX World Congress on Parkinson's disease and related Disorders on 8-11 December, 2013 at Geneva, Switzerland.
- Mr. Surendra selected for best poster award from Rome, Italy in 2018 and Int. FENS Travel grant from Brisbane, Australia in 2018, Singapore in 2019 and selected for summer training programme from Utrecht University, Netherlands and Oxford University, London, SFN at Chicago with International travel support from SERB.
- Awarded post-doctoral position at Department of Pathology and Cell Biology, USF Health Heart Institute, MDD 638, Morsani College of Medicine, University of South Florida 560 Channelside Dr, Tampa, FL 33602.
- Dr. R. Banerjee serving as Asst. Professor in Zoology at Parimal Mitra Smriti Mahavidyalaya, Malbazar, Dist.-Jalpaiguri, West Bengal-735221.

Q. Seminar/ Symposia organized

1. A symposium organized titled "Emerging trends in Neuroscience" at SLS, JNU on 31st July, 2021.
2. Organized a seminar titled "The role of hippocampal CaMKII in resilience to trauma-related psychopathology" on 21st Feb, 2023 by Dr. Somoday Hazra, IIT, Haifa, Israel.
3. Organized a seminar titled "Drosophila eye model to study development and disease" on 18st June, 2024 by Prof. Amit Singh, Department of Biology, Dayton University, Ohio, USA.

R. Affiliation to Scientific/ Technical Committees

- Member, Area Advisory Board-2025 (Neuroscience), Amity University, Noida, UP
- Member, Evaluation committee AIIMS, New Delhi
- Member, RAC—Tripura University
- Member, RAC—Nirma University
- Member, UGC expert evaluation committee

- Member, RSB Membership Number: P0163890
- Life Member, Indian Science Congress Association (LM No L-16333)
- Life Member, Indian Academy of Neuroscience (LM No-114).
- Life *Member,* Indian Association for Biomedical Scientist (LM No.1130)
- Life *Member,* National Environmental Science Academy (LM No.2446)
- Reviewer of Brain Structure & Functions, Plos One, ACS NeuroChem, Bioscience, Biochemistry and Biotechnology, Toxicology in vitro.
- *Associate Editor:* Journal of Alzheimer's Disease
- *Associate Editor:* Frontiers in Endocrinology
- Editorial Board Member: Brain Sciences
- Editorial Board Member: InPress Neuroscience
- *Member,* JNU CARE Journal Committee
- Member, JNU Academic Council

S. Invited Lectures

7) **A.C. Mondal** presented an invited talk on "Parkinson's disease, its different experimental models, and current therapeutic approaches" at ISLS-BHU, Varanasi on 12th Sept, 2019 for IBRO-APRC Neuroscience School on Molecular Basis of Neuroinflammation Mediated Neurodegeneration from September 01-14, 2019.

6) **A.C. Mondal** presented an invited talk entitled "Basics of Parkinson's disease and modern therapeutic approaches" at DIPSAR, Pusph Vihar, New Delhi on 12th March, 2019 for AICTE approved XXVIII QIP on "Recent Advances in Pharmaceutical Sciences".

5) **A.C. Mondal** presented an invited talk entitled "Parkinson's disease and therapeutic approaches" at BIT, Mesra, Ranchi on 16th Jan, 2019.on AICTE approved QIP on the topic "Cutting Edge & Emerging Technologies in Pharmaceutical Education and Research".

4) **A.C. Mondal** presented an invited talk entitled "Alzheimer's disease: Fundamental concepts and therapeutic outcomes of β-breaker peptide" at ICREB-2018 Int. Conference at GGV, Koni, Bilaspur (CG), on 29-30th Oct, 2018. Page No. 125 (Abstract)

3) **A.C. Mondal** presented an invited talk entitled "Prodrug peptide: A potential therapeutic agent for treatment of Alzheimer's disease at AIIMS, Rishikesh on 15th Oct, 2018.

2) **A.C. Mondal** presented a paper entitled "Effects of β-sheet breaker α/β peptide against amyloid β-induced neuronal apoptosis in human neuroblastoma cells SHSY5Y cells" at IABMS-2016: National Conference on "on current advances in integrated biomedicine for healthcare, Organized by Shobhit University on 3-6 Nov, 2016. Proceedings of IABMS-2016, Page No. 54 (Abstract). **[Dr. A. Namasivayam award given to A. C. Mondal]**

1) **A.C. Mondal** presented a paper entitled “Reduced Expression of Hippocampal BDNF, NGF and their Cognate Receptors in Postmortem Brain of Suicide Victims” on XXI World Congress of Neurology (WCN-2013) Organized by Kenes International, Switzerland at Vienna, Austria held on 21-26 Sept, 2013. Journal of the Neurological Sciences 333 (2013) e1–e64, Page No. e715 (Abstract) doi:10.1016/j.jns.2013.07.2465 **[Awarded Int. Travel Grant to Dr. A.C. Mondal]**

T. Academic references:

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Haryana 122051, INDIA
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3. Prof. Nihar Ranjan Jana
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4. Dr. Malabendu Jana
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