

## Faculty Details

**Name-** Dr. Anupom Borah

**Designation-** Assistant professor

**Department-** Department of Life Science and Bioinformatics

**Phone-** +91-9531194100

**Email-** [anupomborah@gmail.com](mailto:anupomborah@gmail.com)

[anupomborahh@gmail.com](mailto:anupomborahh@gmail.com)



**Year of Joining:** 28-10-2009

**Areas of Interest/Specialization:** Biotechnology, Cellular and Molecular Neurobiology

**Experience** – 11 years

**Education qualification:**

*Post-doctoral research-* DBT Overseas Associateship (2013-2014)

Dept. Of Neurology, University of Pittsburgh, USA

*Ph.D.* - Jadavpur University

*M. Sc-* Banaras Hindu University

**Honours/Awards (National/ International):** NET-JRF, GATE, DBT Overseas Associateship,

DBT-Rapid Grant for Young Investigator, DST- Young Scientist,

Member- Indian Academy of Neuroscience, Member- International Society for Neurochemistry

**Research Projects:**

SL	Title	Sponsored	Duration
1.	Investigating the molecular basis of anti-parkinsonian effects of Garcinol - a phytoconstituent of Garcinia sp. in animal model of Parkinson's disease	Department of Biotechnology, Govt. of India	2017- 2020
2	Identification and structural characterization of mitochondrial DNA Primase in <i>Leishmania donovani</i>	Department of Biotechnology, Govt. of India	2018-2021
3	Molecular mechanism underlying neurotoxicity of L-DOPA-induced endogenous molecules in Parkinson's disease- Effects of antioxidants	Department of Biotechnology, Govt. of India	2013-2017
4	Effect of dietary restriction on the medication and pathophysiology of Parkinson's disease	Department of Science and Technology, Govt. of India	2014-2018
5	Effect of hypercholesterolemia on brain function: Effect of indigenous plants component of North-East India	Department of Biotechnology, Govt. of India	2011-2015

### Five Best Peer Reviewed Publications:

Sl. No.	Indexed	Title of the paper	Name of the Journal	Volume, issue & page nos.	Year	Impact factor
1	Scopus indexed	Lycopene - a Pleiotropic Neuroprotective Nutraceutical: Deciphering its Therapeutic Potentials in broad spectrum Neurological Disorders	Neurochemistry International	doi: 10.1016/j.neuint.2020.104823	2020	3.99
2	Scopus indexed	Neurological sequel of chronic kidney disease: From diminished Acetylcholinesterase activity to mitochondrial dysfunctions, oxidative stress and inflammation in mice brain	Scientific Reports	Vol- 9 Issue- 1 3097	2019	4.01
3	Scopus indexed	A Friend or Foe: Calcineurin across the Gamut of Neurological Disorders	ACS Central Science	Vol- 4 Issue- 7 Page No- 805-819	2018	12.83
4	Scopus indexed	Cholesterol contributes to dopamine-neuronal loss in MPTP mouse model of Parkinson's disease: Involvement of mitochondrial dysfunctions and oxidative stress	PLOS ONE	Vol-12 Issue- 2 No- e0171285	2017	2.77
5	Scopus indexed	$\alpha$ -Synuclein binds to TOM20 and inhibits mitochondrial protein import in Parkinson's disease	Science Translational Medicine	Vol- 8 Issue- 342 No- 342ra78	2016	17.16

### Complete List of Publications:

Sl. No.	Indexed	Title of the paper	Name of the Journal	Volume, issue & page nos.	Year	Impact factor
1	Scopus indexed	Lycopene - a Pleiotropic Neuroprotective Nutraceutical: Deciphering its Therapeutic Potentials in broad spectrum Neurological Disorders	Neurochemistry International	doi: 10.1016/j.neuint.2020.104823	2020	3.99
2	Scopus indexed	Molecular Pathogenesis and Interventional Strategies for Alzheimer's Disease: Promises and Pitfalls	ACS Pharmacology and Translational Science	Vol- 3 Issue- 3 Page No- 472- 488	2020	-
3	Scopus indexed	Migraine and Ischemic Stroke: Deciphering the Bidirectional Pathway	ACS Chemical Neuroscience	Vol- 11 Issue- 11 Page No-	2020	4.21

				1525-1538		
4	Scopus indexed	Cell Death Pathways in Ischemic Stroke and Targeted Pharmacotherapy	Translational Stroke Research	doi: 10.1007/s12975-020-00806-z	2020	5.84
5	Scopus indexed	Inhibitory potential of plant secondary metabolites on anti-Parkinsonian drug targets: Relevance to pathophysiology, and motor and non-motor behavioural abnormalities	Medical Hypotheses	Vol- 137 No- 109544	2020	1.32
6	Scopus indexed	Advances in Studies on Stroke-Induced Secondary Neurodegeneration (SND) and Its Treatment	Current Topics in Medicinal Chemistry	Vol- 20 Issue- 13 Page No- 1154-1168	2020	3.40
7	Scopus indexed	Natural Products and Their Therapeutic Effect on Autism Spectrum Disorder	Advances in Neurobiology	Vol- 24 Page No- 601-604	2020	-
8	Scopus indexed	Role of Oxidative Stress and Antioxidants in Autism	Advances in Neurobiology	Vol- 24 Page No- 193-206	2020	-
9	Scopus indexed	Quercetin-induced amelioration of deltamethrin stress in freshwater teleost, <i>Channa punctata</i> : Multiple biomarker analysis	Comparative Biochemistry Physiology C Toxicology Pharmacology	Vol- 227 No- 108626	2020	2.69
10	Scopus indexed	Intra-arterial Stem Cell Therapy Diminishes Inflammasome Activation After Ischemic Stroke: a Possible Role of Acid Sensing Ion Channel 1a	Journal of Molecular Neurosciences	doi: 10.1007/s12031-019-01460-3	2019	2.89
11	Scopus indexed	Lactoferrin Coupled Lower Generation PAMAM Dendrimers for Brain Targeted Delivery of Memantine in Aluminum-Chloride-Induced Alzheimer's Disease in Mice	Bioconjugate Chemistry	Vol-30 Issue- 10 Page no- 2573-2583	2019	4.34
12	Scopus indexed	Endoplasmic reticulum-mitochondria crosstalk: from junction to function across neurological disorders	Annals of New York Academy of Sciences	Vol- 1457 Issue- 1 Page No- 41-60	2019	4.03
13	Scopus indexed	Behavioral and Biochemical Implications of Dendrimeric Rivastigmine in Memory-Deficit and Alzheimer's Induced Rodents	ACS Chemical Neuroscience	Vol-10 Issue- 8 Page no- 3789-3795	2019	4.21
14	Scopus indexed	Intra-arterial stem cell therapy modulates neuronal calcineurin and confers neuroprotection after ischemic stroke	International Journal of Neuroscience	Vol-129 Issue- 10 Page no- 1039-1044	2019	1.84
15	Scopus indexed	Neuroprotective attributes of L-theanine, a bioactive amino acid of	Neurochemistry International	Vol-129 104478	2019	3.99

		tea, and its potential role in Parkinson's disease therapeutics				
16	Scopus indexed	An in silico investigation on the inhibitory potential of the constituents of Pomegranate juice on antioxidant defense mechanism: Relevance to neurodegenerative diseases	IBRO Reports	Vol-9 Issue- 6 Page No- 153-159	2019	-
17	Scopus indexed	Evolving Evidence of Calreticulin as a Pharmacological Target in Neurological Disorders	ACS Chemical Neuroscience	Vol- 10 Issue- 6 Page No- 2629-2646	2019	4.21
18	Scopus indexed	Garcinol, a multifaceted sword for the treatment of Parkinson's disease	Neurochemistry International	Vol- 128 Page No-50- 57	2019	3.99
19	Scopus indexed	Interplay between Mitophagy and Inflammasomes in Neurological Disorders	ACS Chemical Neuroscience	Vol- 10 Issue- 5 Page No- 2195-2208	2019	4.21
20	Scopus indexed	Neurological sequel of chronic kidney disease: From diminished Acetylcholinesterase activity to mitochondrial dysfunctions, oxidative stress and inflammation in mice brain	Scientific Reports	Vol- 9 Issue- 1 3097	2019	4.01
21	Scopus indexed	Trigonelline therapy confers neuroprotection by reduced glutathione mediated myeloperoxidase expression in animal model of ischemic stroke	Life Sciences	Vol- 216 Page no- 49-58	2019	3.44
22	Scopus indexed	Therapeutic spectrum of interferon- $\beta$ in ischemic stroke	Journal of Neurological Sciences	Vol- 97 Issue- 2 Page No- 116-127	2019	2.47
23	Scopus indexed	Accumulation of Cholesterol and Homocysteine in the Nigrostriatal Pathway of Brain Contributes to the Dopaminergic Neurodegeneration in Mice	Neuroscience	Vol- 388 Page No- 347-346	2019	3.24
24	Scopus indexed	Novel Targets for Parkinson's Disease: Addressing Different Therapeutic Paradigms and Conundrums	ACS Chemical Neuroscience	Vol- 10 Issue- 1 Page No- 44-57	2019	4.21
25	Scopus indexed	A Friend or Foe: Calcineurin across the Gamut of Neurological Disorders	ACS Central Science	Vol- 4 Issue- 7 Page No- 805-819	2018	12.83
26	Scopus indexed	Mitochondrial Dysfunction in Stroke: Implications of Stem Cell Therapy	Translational Stroke Research	doi: 10.1007/s12 975-018-	2018	5.84

				0642-y		
27	Scopus indexed	Inflammasomes in stroke: a triggering role for acid-sensing ion channels	Annals of New York Academy of Sciences	Vol-1431 Issue- 1 Page no- 14-24	2018	4.03
28	Scopus indexed	Garcinol, an effective monoamine oxidase-B inhibitor for the treatment of Parkinson's disease	Medical Hypotheses	Vol-117 Issue- 1 Page no- 54-58	2018	1.32
29	Scopus indexed	Attenuation of Aluminum Chloride-Induced Neuroinflammation and Caspase Activation Through the AKT/GSK-3 $\beta$ Pathway by Hesperidin in Wistar Rats	Neurotoxicity Research	Vol-34 Issue- 3 Page no- 463-476	2018	3.53
30	Scopus indexed	Noncoding RNAs in ischemic stroke: time to translate	Annals of New York Academy of Sciences	Vol-1421 Issue- 1 Page no- 19-36	2018	4.03
31	Scopus indexed	Myeloperoxidase and Neurological Disorder: A Crosstalk	ACS Chemical Neuroscience	Vol-9 Issue- 3 Page no- 421-430	2018	4.21
32	Scopus indexed	Getting Closer to an Effective Intervention of Ischemic Stroke: The Big Promise of Stem Cell	Translational Stroke Research	Vol-9 Issue- 4 Page no- 356-374	2018	5.84
33	Scopus indexed	Disturbed purine nucleotide metabolism in chronic kidney disease is a risk factor for cognitive impairment	Medical Hypotheses	Vol-111 Page no- 36-39	2018	1.32
34	Scopus indexed	Melatonin protects against behavioral deficits, dopamine loss and oxidative stress in homocysteine model of Parkinson's disease	Life Sciences	Vol-1 Issue- 192 Page no- 238-245	2018	3.44
35	Scopus indexed	1-Methyl-4-Phenylpyridinium-Induced Death of Differentiated SH-SY5Y Neurons Is Potentiated by Cholesterol	Annals of Neurosciences	Vol-24 Issue- 4 Page no- 243-251	2018	0.43
36	Scopus indexed	Global loss of acetylcholinesterase activity with mitochondrial complexes inhibition and inflammation in brain of hypercholesterolemic mice	Scientific Reports	Vol-7 Issue- 1 No-17922	2017	4.01
37	Scopus indexed	Stroke Management: An Emerging Role of Nanotechnology	Micromachines	Vol-8 Issue- 9 Page no- 262	2017	2.22
38	Scopus indexed	Cholesterol contributes to dopamine-neuronal loss in MPTP mouse model	PLOS ONE	Vol-12 Issue- 2	2017	2.77

		of Parkinson's disease: Involvement of mitochondrial dysfunctions and oxidative stress		No-e0171285		
39	Scopus indexed	Hypercholesterolemia causes psychomotor abnormalities in mice and alterations in cortico-striatal biogenic amine neurotransmitters: Relevance to Parkinson's disease	Neurochemistry International	Vol-108 Page No-15-26	2017	3.99
40	Scopus indexed	Oxidative stress and mitochondrial dysfunction are the underlying events of dopaminergic neurodegeneration in homocysteine rat model of Parkinson's disease	Neurochemistry International	Vol-101 Page No-48-55	2016	3.99
41	Scopus indexed	A highly reproducible mice model of chronic kidney disease: Evidences of behavioural abnormalities and blood-brain barrier disruption	Life Sciences	Vol-161 Page no-27-36	2016	3.44
42	Scopus indexed	L-DOPA-induced hyperhomocysteinemia in Parkinson's disease: Elephant in the room	Biochimica et Biophysica Acta	Vol- 1860 Issue- 9 Page no-1989-1997	2016	3.68
43	Scopus indexed	$\alpha$ -Synuclein binds to TOM20 and inhibits mitochondrial protein import in Parkinson's disease	Science Translational Medicine	Vol- 8 Issue- 342 No- 342ra78	2016	17.16
44	Scopus indexed	L-DOPA treatment in MPTP-mouse model of Parkinson's disease potentiates homocysteine accumulation in substantia nigra	Neuroscience Letters	Vol- 15 Issue- 628 Page no-225-229	2016	2.17
45	Scopus indexed	Cholesterol in Pancreatic $\beta$ -Cell Death and Dysfunction: Underlying Mechanisms and Pathological Implications. Pancreas	Pancreas	Vol- 45 Issue- 3 Page No-317-324	2016	2.65
46	Scopus indexed	Chronic exposure of homocysteine in mice contributes to dopamine loss by enhancing oxidative stress in nigrostriatum and produces behavioral phenotypes of Parkinson's disease	Biochemical and Biophysical Reports	Vol- 6 Page No-47-53	2016	-
47	Scopus indexed	The potential physiological crosstalk and interrelationship between two sovereign endogenous amines, melatonin and homocysteine	Life sciences	Vol- 139 Page No-97-107	2015	3.44
48	Scopus indexed	Cholesterol - A putative endogenous contributor towards Parkinson's disease	Neurochemistry International	Vol- 90 Page no-125-133	2015	3.99
49	Scopus indexed	Piroxicam confer neuroprotection in Cerebral Ischemia by inhibiting Cyclooxygenases, Acid- Sensing Ion	Bioinformation	Vol- 11 Issue- 4 Page no-	2015	-

		Channel-1a and Aquaporin-4: an in silico comparison with Aspirin and Nimesulide		217-222		
50	Scopus indexed	Activation of NMDA receptor by elevated homocysteine in chronic liver disease contributes to encephalopathy	Medical Hypotheses	Vol- 85 Issue- 1 Page no- 64-67	2015	1.32
51	Scopus indexed	Piroxicam inhibits NMDA receptor-mediated excitotoxicity through allosteric inhibition of the GluN2B subunit: an in silico study elucidating a novel mechanism of action of the drug	Medical Hypotheses	Vol- 83 Issue- 6 Page no- 740-746	2014	1.32
52	Scopus indexed	Inhibition of matrix metalloproteinase-2 and 9 by Piroxicam confer neuroprotection in cerebral ischemia: an in silico evaluation of the hypothesis	Medical Hypotheses	Vol- 83 Issue- 6 Page no- 697-701	2014	1.32
53	Scopus indexed	Neuroprotective potential of silymarin against CNS disorders: insight into the pathways and molecular mechanisms of action	CNS Neuroscience and Therapeutics	Vol- 19 Issue- 11 Page no- 847-853	2013	4.01
54	Scopus indexed	$\beta$ -phenethylamine--a phenylalanine derivative in brain--contributes to oxidative stress by inhibiting mitochondrial complexes and DT-diaphorase: an in silico study	CNS Neuroscience and Therapeutics	Vol- 19 Issue- 8 Page no- 596-602	2013	4.01
55	Scopus indexed	Contribution of $\beta$ -phenethylamine, a component of chocolate and wine, to dopaminergic neurodegeneration: implications for the pathogenesis of Parkinson's disease	Neuroscience Bulletin	Vol- 29 Issue- 5 Page no- 655-660	2013	3.49
56	Scopus indexed	L-DOPA induced-endogenous 6-hydroxydopamine is the cause of aggravated dopaminergic neurodegeneration in Parkinson's disease patients	Medical Hypotheses	Vol-79 Issue-2 Page no- 271-273	2012	1.32
57	Scopus indexed	Salicylic acid protects against chronic L-DOPA- induced 6-OHDA generation in experimental model of parkinsonism	Brain research	Vol-1344 Page no- 192-199	2010	3.12
58	Scopus indexed	L-DOPA-induced 6-hydroxydopamine production in the striata of rodents is sensitive to the degree of denervation	Neurochemistry international	Vol-56 Issue-2 Page no- 357-362	2010	3.99
59	Scopus	Melatonin inhibits 6-	Journal of Pineal	Vol-47	2009	15.2

	indexed	hydroxydopamine production in the brain to protect against experimental parkinsonism in rodents	Research	Issue-4 Page no- 293-300		
60	Scopus indexed	Striatal dopamine level contributes to hydroxyl radical generation and subsequent neurodegeneration in the striatum in 3-nitropropionic acid-induced Huntington's disease in rats	Neurochemistry International	Vol-55 Issue-6 Page no- 431-437	2009	3.99
61	Scopus indexed	Long term L-DOPA treatment causes production of 6-OHDA in the mouse striatum: Involvement of hydroxyl radical	Annals of Neurosciences	Vol-55 Issue-6 Page no- 431-437	2009	0.43
62	Scopus indexed	Long-term L-DOPA treatment causes indiscriminate increase in dopamine levels at the cost of serotonin synthesis in discrete brain regions of rats	Cellular and Molecular Neurobiology	Vol-27 Issue-8 Page no- 985-996	2007	3.89