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| **Dr Anju T R - photo.jpg** | **Name** | **Dr. Anju T R** |
| **Designation** | **Assistant Professor** |
| **Qualification** | **MSc; Ph.D**  |
| **Area of Specialisation** | **Biotechnology; Molecular** **Neurobiology and cell biology** |

**Educational Qualification**

* **Post Doctoral Research DBT Research Associate CUSAT, Cochin**
* **Ph.D CSIR SRF/JRF CUSAT, Cochin**
* **MSc. Biotechnology Gulbarga University**

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| **Publications*** ***Books.***

**Book chapters**1. **Anju T R**, Ajayan M S, Paulose C S. (2012). Long term effects of neonatal hypoxia on cognition and memory. In: Current Scenario in Biotechnology. (P. Ponmurugan, Punirthaa Prabhu, G. Ayyappadasan, G. Ganesh Babu, eds), pp 425 – 434. Bloomsbury Publishing India Pvt. Limited, India. **ISBN: 978-93-82563-27-3.**
2. Roshni Baby Thomas, **Anju T R**, Shilpa Joy, CS Paulose(2012). Role of Curcumin as a Nutritional Supplement to enhance Cell Proliferation and Survival in Hypoxia Induced Hepatocyte Injury- *In vitro* model. In: Current Scenario in Biotechnology. (P. Ponmurugan, Punirthaa Prabhu, G. Ayyappadasan, G. Ganesh Babu, eds), pp 240 – 251. Bloomsbury Publishing India Pvt. Limited, India. **ISBN: 978-93-82563-27-3.**
3. C S Paulose, **Anju T R**. (2009). Neurotransmitter receptor’s fuctional regulation in disease management: a molecular approach. Science India. 13(4): 30 – 35. ISSN: 0972-8287
* **Journals**

**Research Papers** (**Total number- 42, Cumulative impact factor – 81, Total citations – 74, H- index - 7)*****International peer reviewed journals:***1. Akash K G, **Anju T R**, Peeyush K T, Paulose C S. (2008). Enhanced dopamine D2 receptor function in hypothalamus and corpus striatum: their role in liver, plasma and in vitro hepatocyte ALDH regulation in ethanol treated rats. J Biomed Sci. 15(5):623-31. I.F. – 2.76
2. George AK, **Anju T R**, Paulose CS. (2009). Enhanced 5-HT (2A) receptors in brain stem and ALDH activity in brain stem and liver: 5-HT(2A) regulation on ALDH in primary hepatocytes cultures in vitro. Neurochem Res. 34(9):1535-41. I.F. – 2.593
3. C S Paulose,P S John, Sreekanth R, Mathew Philip, Padmarag Mohan C, Jobin Mathew, Peeyush Kumar T, Jes Paul, Pretty Mary Abraham, Sherin Antony, Binoy Joseph, Anu Joseph, Amee Krishnakumar, **Anju T R**, Reas Khan S, Santhosh Thomas K and Nandhu M S. (2009)**.** Spinal Cord Regeneration and Functional Recovery: Neurotransmitter’s Combination and Bone Marrow Cells Supplementation. *Current Science*. 2009; 97 (4):546-9. I.F. – 0.935
 |
| 1. **Anju T R**, Peeysh K T, Paulose C S. (2010). Decreased GABAA receptors functional regulation in the cerebral cortex and brainstem of hypoxic neonatal rats: effect of glucose and oxygen supplementation. Cell Mol Neurobiol. 30(4):599-606. I.F. – 2.506
2. **Anju T R**, Jobin Mathew, Jayanarayanan S, Paulose C S. (2010). Cerebellar 5-HT2A receptor function under hypoxia in neonatal rats: Role of glucose, oxygen, and epinephrine resuscitation. Respir Physiol Neurobiol. 172 (3):147-153. I.F. – 1.967
3. **Anju T R**, Pretty Mary Abraham, Sherin Antony, Paulose CS. (2010). Alterations in cortical GABAB receptors in neonatal rats exposed to hypoxic stress: Role of glucose, oxygen and epinephrine resuscitation. Molecular and Cellular Biochemistry. 343: 1- 11. I.F. – 2.388
4. **Anju T R**, Nandhu M S, Jes P, Paulose C S. (2010) Insulin and triiodothyronine regulation of neonatal hypoxia: Role of glucose, oxygen and epinephrine supplementation. Fetal and Pediatric Pathology. 30(5):338-49 I.F.- 0.4
5. Sherin Antony**,** Peeyush Kumar T, Jobin Mathew, **Anju T.R** and C. S. Paulose. (2010). Hypoglycemia Induced Changes in Cholinergic receptor expression in the cerebellum of diabetic rats. Journal of Biomedical sciences. Journal of Biomedical Science, 17(1): 7. I.F. – 2.458
6. Peeyush Kumar T, Savitha Balakrishnan, Sherin Antony, **Anju T R**, and Jes Paul. (2010). Cholinergic, Dopaminergic and Insulin Receptors Gene Expression in the Cerebellum of Streptozotocin Induced Diabetic Rats: Functional Regulation with Vitamin D3 Supplementation. Pharmacology Biochemistry and behavior. 95: 216 – 222. I. F. – 2.820
7. Pretty Mary Abraham, **Anju T R**, Jayanarayanan S, C. S. Paulose. (2010). Serotonergic receptor functional up regulation in cerebral cortex and down regulation in brain stem of Streptozotocin induced Diabetic Rats: Antagonism by pyridoxine and insulin. Neuroscience letters. 483: 23–27. I.F. – 2.055
8. **Anju T R**, Smijin S, Korah P K, Paulose C S. (2011) Cortical 5HT2A receptor function under hypoxia in neonatal rats: Role of glucose, oxygen and epinephrine resuscitation. Journal of Molecular Neuroscience. 43(3): 350-7.

I.F. – 2.7571. **Anju T R**, Korah P K, Jayanarayanan S, Paulose C S. (2011) Enhanced brain stem 5HT2A receptor function under neonatal hypoxic insult: Role of glucose, oxygen, and epinephrine resuscitation. Molecular and cellular biochemistry. 354(1-2):151-60. I.F. – 2.388
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| 1. **Anju T R**, Jayanarayanan S, Paulose C S. (2011)Decreased GABAB receptor function in the cerebellum and brain stem of hypoxic neonatal rats: Role of glucose, oxygen and epinephrine resuscitation. Journal of Biomedical Science. 18:31. I.F. – 2.458

 1. **Anju TR**, Paulose CS. (2011). Amelioration of hypoxia-induced striatal 5-HT (2A) receptor, 5-HT transporter and HIF1 alterations by glucose, oxygen and epinephrine in neonatal rats. Neuroscience letters. 502(3):129-32. I.F. – 2.055
2. Anitha M, Nandhu M S, **Anju T R**, Jes Paul and C S Paulose. (2011) Targeting Glutamate mediated excitotoxicity in Huntington's disease: Neural progenitors and partial Glutamate antagonist - Memantine. Medical Hypotheses.76(1):138-40. I.F. – 1.152
3. **Anju T R,** Smijin S, Chinthu R, Paulose CS (2012). Decreased cholinergic function in the cerebral cortex of hypoxic neonatal rats: Role of glucose, oxygen and epinephrine resuscitation. Respiratory Physiology and Neurobiology. 180(1):8-13. I.F. – 1.967

 1. **Anju T R**, Binoy J, Anitha M, Paulose C S. (2012). Striatal GABA Receptor Alterations in Hypoxic Neonatal Rats: Role of Glucose, Oxygen and Epinephrine Treatment. Neurochem Res. 37(3):629-38. I.F. – 2.551
2. **Anju T R,** Naijil G, Shilpa J, Roshni T, Paulose CS (2012). Neonatal hypoxic insult mediated cholinergic disturbances in the brain stem: Effect of glucose, oxygen and epinephrine resuscitation. Neurological Sciences. 34(3):287-96. I.F. – 1.495
3. **Anju T R**, Anitha M, Chinthu R, Paulose CS. (2012). Cerebellar GABAA receptor alterations in hypoxic neonatal rats: Role of glucose, oxygen and epinephrine supplementation. Neurochemistry International. 61(3):302-9. I.F. – 2.650
4. **Anju T R**, Paulose C S.(2012).Learning and cognitive deficits in hypoxic neonatal rats intensified by BAX mediated apoptosis: Protective role of glucose, oxygen and epinephrine. International Journal of Neuroscience. 123(2):80-8 I.F. – 1.528
5. Chinthu R, **Anju T R**, Nandhu M S and C S Paulose. (2012). Cholinergic receptor alterations in the brain stem of spinal cord injured rats. Neurochemical Research. 38(2):389-97. I.F. – 2.551
6. Jayanarayanan S, Smijin S, Peeyush KT, **Anju T R**, Paulose CS. (2013). NMDA and AMPA receptor mediated excitotoxicity in cerebral cortex of streptozotocin induced diabetic rat: ameliorating effects of curcumin. ChemicoBiological interactions. (1-3):39-48. I.F. – 2.982
 |
| 1. **Anju T R**, Ajayan M S, Paulose CS.(2013). Disruption of cerebellar cholinergic system in hypoxic neonatal rats and its regulation with glucose, oxygen and epinephrine resuscitations. Neuroscience. 236:253-61.  I F- 3.327
2. Smijin S, **Anju T R**, Jayanarayanan S, Sherin A, Paulose CS. (2013). Impaired motor learning attributed to altered AMPA receptor function in cerebellum of Temporal lobe epileptic rats: ameliorating effects of Withania somnifera and Withanolide A. Epilepsy & Behavior. 27(3):484-91.  I.F. – 2.061
3. **Anju T R**, Paulose CS. (2013). Striatal cholinergic functional alterations in hypoxic neonatal rats: Role of glucose, oxygen and epinephrine resuscitation. Biochemistry and cell biology. 91(5): 350-356 I.F. – 2.350
4. Shilpa J,  **Anju T R**, Ajayan M S, Paulose C S. (2014)  Increased cortical neuronal survival during liver injury: Effect of GABA and 5-HT chitosan nanoparticles. Journal of Biomedical Nanotechnology. 10 (4), 622-631(10) I.F. – 7.578
5. **Anju T R**, Paulose C S. (2015) Cortical Cholinergic dysregulation as a long term consequence of neonatal hypoglycemia. Biochemistry and Cell biology. 93(1):47-53. I.F. – 2.350
6. **Anju T R**, Paulose C S. (2015).Long term effects of neonatal hypoglycemia on pancreatic function. Archives of Physiology and Biochemistry. 121 (1): 1-12. IF- 1.763
7. Krishnakumar Amee, **Anju T R**, Pretty M A, Paulose C S. (2015). Alteration in 5-HT2C, NMDA receptor and IP3 in cerebral cortex of epileptic rats: Restorative role of Bacopa monnieri. Neurochemical Research 40(1):216-25.  I.F. – 2.551
8. Jayanarayanan S, **Anju TR**, Smijin S, Paulose C S. (2015). Vitamin D3 supplementation increases insulin level by regulating altered IP3 and AMPA receptor expression in the pancreatic islets of streptozotocin induced diabetic rat. The Journal of Nutritional Biochemistry.   26(10):1041-9.  I.F. – 4.592
9. Naijil George, **Anju T. R.,** Jayanarayanan S. & Paulose C. S. (2015) Curcumin pre-treatment mediates anti-diabetogenesis via functional regulation of adrenergic receptor subtypes in the pancreas of MLD-STZ induced diabetic rats. Nutrition Research. 35(9):823-33.  I.F. – 2.472
10. **Anju T R**, Akhilraj P R, Paulose C S. (2016)Oxidative stress and cell death in the cerebral cortex as a long term consequence of neonatal hypoglycemia. Canadian Journal of Physiology and Pharmacology. 94(9): 1015-1022. I.F. – 1.9
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| 1. Laxmi M., **Anju T.R.,** Sarita G. Bhat. (2017) Confocal and SEM imaging to demonstrate food pathogen - biofilm biocontrol by pyocyanin from Pseudomonas aeruginosa BTRY1. International Journal of Bioassay.6.01: 5218-5223.
2. R. Chinthu, **Anju T R,** C.S. Paulose. (2017) Cholinergic receptor alterations in the cerebral cortex of spinal cord injured rat. Biochemistry and Biophysics Reports 10 (2017) 46–51
3. C.S. Paulose, P.S. John, R. Chinthu, P.R. Akhilraj, **T.R. Anju.** (2017). Spinal cord regeneration by modulating bonemarrow with neurotransmitters and Citicholine: Analysis at micromolecular level. Biomedical Journal**.** 40 (2): 94–100
4. Manju T, **Anju T R.** (2017). Oxidative Stress in Liver of Streptozotocin Induced DiabeticRats: Ameliorating Role of Aegle Marmelos Leaf Extract. Journal of Advances in Molecular Biology, 1(1): 72-79
5. **Anju T R**, Joy K P. (2017). Long term effects of neonatal hypoglycemia on muscarinic receptor function in the cerebellum. Journal of Pediatric and Neonatal Biology. 1 (2): 1-5
6. **Anju T R,** Smijin S, Jobin M, Paulose C S (2017) Altered muscarinic receptor expression in the cerebral cortex of epileptic rats: Restorative role of *Withania somnifera.*Biochemistry and Cell biology. Accepted*.* DOI:  10.1139/bcb-2017-0198.   IF- 2.153
7. **Anju T R**, Joy K P. (2017). Altered cell survival signaling in the cerebralcortex as a long term effect of neonatal hypoglycemia. International Journal of Biochemistry and Physiology. 2 (2): 1-6.

***National:***1. **Anju T R**, Athira Babu, Paulose C S. (2009). Superoxide dismutase functional regulation in neonatal hypoxia: effect of glucose, oxygen and epinephrine. Indian J Biochem Biophys. 46(2):166-71 I.F. – 0.871
2. Arun C, **Anju T R**, Nirmalanandagiri S. (2015). Clinical management of diabetes mellitus using herbal combination. Journal of Biomedical Reports. 1: 23- 27.43- 48
3. **Anju T R,** Naijil G, Paulose C S. **(2015).** Enhanced cell survival signaling in the brainstem as a selective adaptation to neonatal hypoglycemia. Journal of Biomedical Reports. 1(2): 25 - 32
 |
| **Published papers in other Journals/ scientific proceedings:**  1. Ajayan M S, **Anju T R**, Paulose C S.(2013) Differential expression of proteins in the AKT pathway in the cerebral cortex of diabetic rats. Proceedings of 25th Kerala Science Congress. 2: 159- 161. **ISBN 81-86366-83-0**
2. **Anju T R,** Paulose C S. (2014). Regulation of Second Messenger Signalling in Hypoxic Neonatal Rats: Effect of Glucose, Oxygen and Epinephrine Resuscitation. International conference on Earth, Environment and lifesciences, Dubai. **ISBN- 978-93-84422-02-8**
3. **Anju T R**, Paulose C S. (2015) Oxidative stress mediated pancreatic damage as a long Term consequence of neonatal hypoglycaemia. Proceedings of 31st IRF International Conference, Chennai, India **ISBN: 978-93-85465-95-6**
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| **Seminar presentations*** **International**
1. **Anju T R**, Athira Babu and C. S Paulose. Superoxide dismutase functional regulation in neonatal hypoxia: Effect of glucose, oxygen and epinephrine. Society for Free Radical Research, India- Satellite Meeting, All India Institute of Medical Sciences (AIIMS), New Delhi. (February 2008).
2. **Anju T R**, C S Paulose. GABAA receptor functional regulation in the cerebral cortex of hypoxia induced neonatal rats: Effect of glucose and oxygen treatment. **Annals of Neurosciences. 15 (supplement): 94. ISSN: 0972- 7531.**

International Conference on Advances in Neuroscience & XXVI Annual Meeting of Indian Academy of Neurosciences. Cochin in the Annals of Neuroscience. supplement. Vol.15. (December 2008)1. **Anju T R**, Jobin Mathew, Jayanarayanan S and C. S. Paulose. Enhanced 5HT2A receptor function in the cerebellum of hypoxic neonatal rats: Role of glucose, oxygen, and epinephrine resuscitation. International Conference on Neuroscience Updates, Annual meeting of Society for Neurochemistry. Cochin (December 2009)
2. Sherin A, Jobin M, Peeyush K, **Anju T R**, C S Paulose. Insulin induced hypoglycemia mediated changes in cholinergic receptor expression in the cerebellum of diabetic rats. International Conference on Neuroscience
 |
| Updates, Annual meeting of Society for Neurochemistry. Cochin (December 2009)1. Chinthu Romeo, Anju T R, C S Paulose. Down regulation of muscarinic m1 receptor in the cerebellum of spinal cord injured rats: bone marrow cells and neurotransmitters supplementation. **Journal of Indian Academy of Geriatrics. 6 (3): 115. ISSN: 0974-3405**

International Ageing Conference – 2010, Banaras Hindu University, Varanasi. (2010).1. Korah P Kuruvilla, Jes Paul, Nandhu. M. S, **Anju TR** and C S Paulose. Oxidative Stress mediated apoptosis leading to neuronal damage in the corpus striatum of 6-hydroxydopamine lesioned Parkinson’s rats: Neuroprotection by Serotonin, GABA and bone marrow cells supplementation. **Annals of Neurosciences. 17(supplement 1): 099 ISSN: 0972- 7531.**

 5th Congress of FAONS & XXVIII Annual Meeting of Indian Academy of Neurosciences, Lucknow (November 2010).1. **Anju T R**, Chinthu R, Paulose C S. Stem cell therapy with neurotransmitters combination to ameliorate cholinergic receptor alterations in the cerebral cortex of spinal cord injured rats. International Symposium on Genetics and Neuroscience Frontiers in Philosophy, Religion and Ethics held at Little Flower Seminary, Aluva, Kerala (February 2014).
2. Naijil George, **Anju T R**, Paulose C. S. Induced pluripotent stem cell technology and ethics. International Symposium on Genetics and Neuroscience Frontiers in Philosophy, Religion and Ethics held at Little Flower Seminary, Aluva, Kerala (February 2014).
3. **Anju T R,** Vishnupriya P**,** Paulose C S.Enhanced cortical neuronal survival during Liver Injury: Effect of Gamma Aminobutyric Acid and 5-HT Chitosan Nanoparticles. International Symposium on Genetic Analysis: Translational and Developmental held at Department of Zoology, The University of Burwan, West Bengal. (November 2014).
4. Naijil George, **Anju T R,** Jayanarayanan S, Paulose C. S.Adrenergic receptor subtype functional regulation during diabetogenesis: Effect of curcumin pre-treatment. International Symposium on Genetic Analysis: Translational and Developmental held at Department of Zoology, The University of Burwan, West Bengal. (November 2014).
5. Ajayan M S, **Anju T R**, Ancy Abraham,C S Paulose.Effect of Cholinergic receptors and antioxidant activity of vitamin E supplementation on Cerebral Cortex alterations in streptozotocin-induced diabetic rats. International Symposium on Genetic Analysis: Translational and Developmental held at Department of Zoology, The University of Burwan, West Bengal. (November 2014).
6. **Anju T R,** Paulose C S. Regulation of Second Messenger Signalling in Hypoxic Neonatal Rats: Effect of Glucose, Oxygen and Epinephrine Resuscitation. International conference on Earth, Environment and lifesciences, Dubai. (December 2014) **ISBN- 978-93-84422-02-8**
7. **Anju T R**, Paulose C S. Oxidative stress mediated pancreatic damage as a long Term consequence of neonatal hypoglycaemia. Proceedings of 31st IRF International Conference, Chennai, India, (September 2015) **ISBN: 978-93-85465-95-6**
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| 1. **Anju T R**, Amrita B, Paulose C S. Oxidative stress and cell death in the cerebral cortex as a long term consequence of neonatal hypoglycaemia. International conference on Health care and Technical Research (ICHTR) organized by Manipal University (December 2015)
2. **Anju T R**, Arya S, Naijil G and Paulose CS. Altered muscarinic receptor expression in the cerebral cortex of epileptic rats: Restorative role of *Withania somnifera.* CUSAT-NUS Joint International Conference on Biotechnology and Neuroscience (CUSBAN-2016) jointly organized by Department of Biotechnology and Center for Neuroscience, Cochin University of Science and Technology, Cochin, India in collaboration with National University of Singapore (December 2016).
3. Afeena H**, Anju TR,** Joy KP. Cerebral cortex functional changes in monosodium glutamate-treated rats and protective role of curcumin. CUSAT-NUS Joint International Conference on Biotechnology and Neuroscience (CUSBAN-2016) jointly organized by Department of Biotechnology and Center for Neuroscience, Cochin University of Science and Technology, Cochin, India in collaboration with National University of Singapore (December 2016).

**National**1. Rajeev Kumar S, Smitha R, Sreeja V S, Lekshmi P, **Anju T R**, Annie J and Revu A A. Protein folding and conformational diseases. Bioquest Kerala 2003, National conference conducted by Department of Biotechnology, Govt. College, Kariavattom. (2003).
2. **Anju T R**, Pretty Mary Abhraham and C. S. Paulose. Enhanced 5HT2A Receptors in the Cerebral Cortex of Hypoxia Induced Neonatal Rats: Effect of Glucose and Oxygen Supplementation. **Indian Journal of Clinical Biochemistry. 24 (supplement): 103. ISSN: 978-93-82563-27-3.**

36th ACBICON 2009 National Conference of Association of Clinical Biochemists of India conducted by Amrita Institute of Medical Sciences, Cochin, (2009). 1. Roshni Baby Thomas, **Anju T R**, Chinthu Romeo, C S Paulose. Cortical muscarinic receptor subtypes down regulation and enhanced Bax expression in hypoxic neonatal rats and cognitive impairment. Annual meeting of society for Biotechnologists, India and National symposium on innovations in Biotechnology- 2010, SRM University, Chennai (2010).
2. **Anju T R**, Ajayan M S, Paulose C S. Long term effects of neonatal hypoxia on cognition and memory. Annual meeting of Society for Biotechnologists (India) and the national conference on Current Scenario in Biotechnology. K. S.R College, Nammakal, TN (2012)
3. Roshni Baby Thomas, **Anju T R**, Shilpa Joy, CS Paulose. Role of Curcumin as a Nutritional Supplement to Enhance Cell Proliferation and Survival in Hypoxia Induced Hepatocyte Injury- *In vitro* model. Annual meeting of Society for Biotechnologists (India) and the national conference on Current Scenario in Biotechnology. K. S. Rangaswamy college of Technology, Tamil Nadu (2012) **ISBN: 978-93-82563-27-3.**
4. Ajayan M S, **Anju T R**, Paulose C S. Differential expression of proteins in the AKT pathway in the cerebral cortex of diabetic rats. Proceedings of 25th Kerala Science Congress volume 2, organised by KSCSTE, Kerala (2013)
5. **Anju T R,** Ajayan M S, Paulose C S. Long term effects of neonatal hypoglycemia on pancreatic function. National Conference on Current Advances in Biotechnology & Annual Meeting of Society for Biotechnologists (India) organized by Sant Gadge Baba Amravati University, Maharashtra (2013)
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| 1. Roshni Baby Thomas, **Anju T R**, Shilpa Joy, CS Paulose. Role of Curcumin as a Nutritional Supplement to Enhance Cell Proliferation and Survival in Hypoxia Induced Hepatocyte Injury- *In vitro* model. Annual meeting of Society for Biotechnologists (India) and the national conference on Current Scenario in Biotechnology. K. S. Rangaswamy college of Technology, Tamil Nadu (2012) **ISBN: 978-93-82563-27-3.**
2. Ajayan M S, **Anju T R**, Paulose C S. Differential expression of proteins in the AKT pathway in the cerebral cortex of diabetic rats. Proceedings of 25th Kerala Science Congress volume 2, organised by KSCSTE, Kerala (2013)
3. **Anju T R,** Ajayan M S, Paulose C S. Long term effects of neonatal hypoglycemia on pancreatic function. National Conference on Current Advances in Biotechnology & Annual Meeting of Society for Biotechnologists (India) organized by Sant Gadge Baba Amravati University, Maharashtra (2013)
4. Ajayan M S, **Anju T R**, Roshni B T, Paulose C S. Gymnemic acid mediated neuronal survival in the cerebral cortex of streptozotocin induced diabetic rats-Muscarinic Receptor subtypes functional regulation. National Conference on Current Advances in Biotechnology & Annual Meeting of Society for Biotechnologists (India) organized by Sant Gadge Baba Amravati University, Maharashtra (2013)
5. Ancy A, Lakshmi S, Ajayan M S, **Anju T R,** Paulose C S. Regulation of Malate Dehydrogenase activity, HIF-α and HGF gene regulation in the liver of Streptozotocin- induced Diabetic rats: Effect of Vitamin E supplementation. **Proceedings of National symposium on Emerging Trends in Biotechnology 2014. 183- 184. ISBN- 978-93-80095-47-9.**

National symposium on Emerging Trends in Biotechnology 2014 organized by Department of Biotechnology, Cochin University of Science and Technology, Cochin (2014)1. Lakshmi S, Abraham A, **Anju T R**, Paulose C S. Malate dehydrogenase activity, Hypoxia inducible factor α, Hepatocyte growth factor expression in the liver of diabetic rats: Role of Gymnemic acid treatment. **Proceedings of National symposium on Emerging Trends in Biotechnology 2014. 183- 184. ISBN- 978-93-80095-47-9.**

National symposium on Emerging Trends in Biotechnology 2014 organized by Department of Biotechnology, Cochin University of Science and Technology, Cochin (2014)1. Abraham A, Anitha M, **Anju T R**, Paulose C S. Neuroprotective role of Pyridoxine in the cerebral cortex of Streptozotocin induced diabetic rats. Bioradiance ‘14- Cytogenetics and applications. Organized by Pushpagiri Research Centre and Pushpagiri Centre for Virology, Kerala (2014)

Johns D A, Ajayan M S, **Anju T R**, Paulose C S. Baclofen induced proliferation of pancreatic β-cells and functional regulation of adrenergic β2 receptor subtype in the cerebral cortex of streptozotocin induced diabetic rats. Organized by Pushpagiri Research Centre and Pushpagiri Centre for Virology, Kerala (2014)1. Vishnupriya P, Shilpa J, **Anju T R**, Paulose C S. Muscarinic M1 receptor subtype gene expression and its functional regulation in the cerebral cortex during enhanced liver cell proliferation by GABA and 5-HT chitosan nanoparticles treatment. Organized by Pushpagiri Research Centre and Pushpagiri Centre for Virology, Kerala (2014).
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| 1. Ajayan M S, **Anju T R**, Ancy Abraham, C S Paulose. Effect of vitamin E supplementation on Muscarinic M1 and M3 Receptor subtypes in the cerebral cortex of streptozotocin – induced Diabetic Rats. **Proceedings of 27th Kerala Science Congress. 2: 159- 161. ISBN 81-86366-88-1**

27th Kerala Science Congress, Kerala (January 2015)1. **Anju T R**, Chinthu R, Paulose C S. Stem cell therapy with neurotransmitters combination to ameliorate cholinergic receptor alterations in the cerebral cortex of spinal cord injured rats. **Proceedings of 27th Kerala Science Congress. 2: 159- 161. ISBN 81-86366-88-1**

27th Kerala Science Congress, Kerala (January 2015)1. Akhilraj P R, **Anju T R**, Paulose C S. Muscarinic M1 receptor subtype functional regulation in the cerebellum of GABA and 5-HT chitosan nanoparticle treated patially hepatectomised rats. UGC sponsored National seminar Current Trends in Molecular Diagnostics organized by Mar Athanasius College, Kothamangalam during 8-9 October, 2015.
2. Akhilraj P R, **Anju T R**, Amrita Benoy, Paulose C S. Amelioration of cerebellar muscarinic M1 receptor subtype alteration by GABA and 5-HT Chitosan Nanoparticle treatment to partially hepatectomised rats. Proceedings ofNational Conference on Recent Advances in Biomedical Sciences and Biotechnology. **Journal of Biomedical Reports (Special edition), December 2015, ISSN 2395 – 0110**
3. Johns D A, **Anju T R**, Atul P J, Paulose C S. Baclofen induced proliferation of pancreatic β-cells and functional regulation of adrenergic β2 receptor subtype in the cerebral cortex of streptozotocin induced diabetic rats Proceedings ofNational Conference on Recent Advances in Biomedical Sciences and Biotechnology. **Journal of Biomedical Reports (Special edition), December 2015 , ISSN 2395 – 0110**
4. **Anju T R**, Akhilraj P R, Paulose C S. Cerebellar muscarinic receptor alterations as a long term consequence of neonatal hypoglycemia. Proceedings ofNational Conference on Recent Advances in Biomedical Sciences and Biotechnology. **Journal of Biomedical Reports (Special edition), December 2015, ISSN 2395 – 0110**
5. Naijil George, **Anju T. R**., & Paulose C. S. Adrenergic receptor subtype functional regulation in the pancreas of MLD-STZ induced diabetic rats: Effect of curcumin pre-treatment. Proceedings ofNational Conference on Recent Advances in Biomedical Sciences and Biotechnology. **Journal of Biomedical Reports (Special edition), December 2015, ISSN 2395 – 0110**
6. Akhila S, **Anju TR**, Smita M, Joy KP***.*** Hypothalamic Functional Changes In Monosodium Glutamate-Treated Rats And Protective Role of Curcumin. Proceedings of National Conference on Recent Trends in Biotechnology (BioTrends-2016) organized by National Institute of Ocean Technology (ESSO-NIOT), Chennai, India( October **2016)**
7. **Anju TR**, Naijil G, Paulose CS, Joy KP. Muscarinic M3 receptor regulation in the brainstem as a long term consequence of neonatal hypoglycemia. Proceedings of National Conference on Recent Trends in Biotechnology (BioTrends-2016) organized by National Institute of Ocean Technology (ESSO-NIOT), Chennai, India( October **2016)**
 |
| 1. **Anju T R**, Binoy J, Paulose C S. Decreased Dopamine D1 andD2 receptors in the cerebral cortex of hypoxic neonatal rats: effective resuscitation with glucose and oxygen.Proceedings of 29th Kerala Science Congress. pp: 131. 29th Kerala Science Congress, Kerala (January 2017)
2. **Anju T R**, Gayathri Krishna R, Mohanan VV, Joy K P. Glutamate excitotoxicity in cerebral cortex as a long term consequence of neonatal hypoglycemia. National Symposium on Current Research in Biotechnology and Annual Meet of Society for Biotechnologists India (SBTI) on September 15th -16th, 2017 at JSS College of Pharmacy, Ooty, Tamil Nadu.
3. **Anju T R.** Desamoolanavaneetham for treatment of autism, a case report. Book of Abstracts, KSCSTE sponsored National Seminar on Current Trends in Biotechnology on December 15, 2017 at St. Joseph’s College, Irijalakuda, Thrissur. Page 5.
4. Atul P J, Smita M, **Anju T R**, Joy K P. Muscarinic receptor expression and behavioural changes in monosodium glutamate- treated rats: Neuroprotective role of curcumin. Book of Abstracts, KSCSTE sponsored National Seminar on Current Trends in Biotechnology on December 15, 2017 at St. Joseph’s College, Irijalakuda, Thrissur. Page 8.
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| **Awards and Honours*** Awarded **Kerala State Young Scientist Award, 2012** in **Biological Sciences** by KSCSTE, Kerala.
* **Fellow of Society for Applied Biotechnology.**
* Awarded **DBT- Research Associateship,** June2012 to June 2017.
* Awarded **DBT Travel Support for attending International Conference, 2014**
* Awarded **CSIR JRF and SRF and UGC National Eligibility Test (NET)** for Lecturer-ship
* Awarded **IBS Award for best oral presentation in Medical biotechnology** at the National Conference on Current Advances in Biotechnology & Annual Meeting of Society for Biotechnologists (India), 2013.
* Awarded **Prof. Edathil Vijayan Award for the best original paper presentation on Neuroscience/ Neuroendocrinology** and Endocrinology at the annual meeting of SBTI and the national conference on Current Scenario in Biotechnology, 2012.
* University **First Rank holder and gold medalist** in MSc. Biotechnology from Gulbarga University, Karnataka.
* Cleared **JNU common entrance test** by DBT, Govt. of India for MSc. Biotechnology course.
* Selected for **UGC post graduate merit scholarship scheme for university rank holders** at undergraduate level.
* University **Second Rank holder in BSc.** Biotechnology from Kerala University.
* **Second Prize in state level debate competition** conducted by CTCRI, Trivandrum on National Science Week.
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| **Professional Membership*** **Secretary, Society for Biotechnologists (India)** from December 2015 onwards.
* **Joint Treasurer , Society for Biotechnologists (India)** (2012 – 2015)
* Life Member, Society for Biotechnologists (India)
* Life Member, International Brain Research Organisation
* Life Member, Society for Applied Biotechnology
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| **Consultancy/Projects undertaken**

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| **Title** | **Agency/ Organization sponsored** | **Year** | **Designation**  |
| Long term effect of early life stress in brain function at the level of neurotransmitters and transcription factors. | Department of Biotechnology, Govt. of India | **2012-2017** | DBT Research Associate  |
| Case studies on the effectiveness of ayurvedic treatment methodologies in the management of autism. | Athreya Reserch Foundation (Intramural Project) | **2017- 2018** | Principal Investigator as Scientist, Athreya Reserch Foundation  |

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| **Editorial board member / reviewer of scientific journals or books*** **Editorial in chief, Journal of Biological Reports.** ISSN 2395 – 0110
* **Associate Editor, International Journal of Biochemistry and Physiology (**MedWin Publishers, Troy, Michigan, USA)
* **Editorial board member** **‘Journal of Anaesthesia and Preoperative Care’** (Auctores Publishing LLC, Lewes, Delaware, USA)
* **Reviewer , Molecular and cellular biochemistry (Springer journal)**
* **Reviewer, Biomedicine & Pharmacotherapy (Elsevier Journal)**
* **Reviewer, International Journal of Bioassays**
* **Reviewer, International Journal of Clinical Research & Trials.**
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| **Invited lectures/ talks/ quiz coordination**Invited lecture on ‘G- protein coupled receptors – an overview’ Delivered in Department of Chemistry, Bharat Matha College, Thrikkakara, Cochin on 22- 01- 2013.Invited talk on ‘Gene expression control in prokaryotes and eukaryotes’Delivered in Department of Botany, St. Teresa’s College, Ernakulam on 22- 03- 2013.Invited talk on ‘Biotechnology- its scope and current perspectives’ Delivered in the career guidance programme of Vidyodaya Public School (CBSE), Ernakulam on 29-10-2013.Quiz coordinator of ‘All Kerala intercollegiate life sciences quiz competition’ conducted by Department of Biotechnology, Cochin University of Science and Technology, Cochin in association with National Science day celebration on 28- 2- 2014.Quiz coordinator of ‘All Kerala intercollegiate life sciences quiz competition’ conducted by Department of Biotechnology, Cochin University of Science and Technology, Cochin in association with International Ozone Layer Preservation Day Observance 2014 on 26th September 2014.Quiz coordinator of ‘Intercollegiate science quiz competition’ conducted by Department of Biotechnology, Cochin University of Science and Technology, Cochin in association with National Science day seminar on 24th February, 2015.Invited Lecture on “Neuronal plasticity and recent research in Cerebral palsy” Delivered in the state level Seminar on “Recent Developments And Challenges In Science And Technology For Specially Abled Persons” in association with the National Science Day celebration 2017 organized by Department of Biotechnology, SAFI Institute Of Advanced Study (SIAS), Malapuram on 16th February 2017Invited Lecture on “Neurological disorders of infancy and childhood” Delivered in the State level seminar on Current trends in Brain Research in association with Brain Awareness week 2017 organized by Department of Zoology, CMS College, Kottayam on 17th March 2017.  |

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| **Organization of scientific conferences/ seminars/ workshops*****International conferences:*****Organizing committee member** of ‘International Conference on Biodiversity, Bioresources and Biotechnology’ organized by Society for Applied Biotechnology held at The Quorum Hotel, Mysore, Karnataka on 30-31 January, 2014.**Organizing committee member** of ‘Inter National Symposium on Genomic Alterations: Therapeutics and Diagnostics (iNSGTD) and Annual Meeting of Society of Biotechnologists (India)’ at Department of Zoology, The University of Burdwan, West Bengal on November 21- 23, 2014.**Scientific Program committee member** International symposium on Biodiversity, Agriculture, Environment and Forestry organized by Society for Applied Biotechnology held at  Fortune Hotel Sullivan Court, Ooty, Tamil Nadu on December 11- 12, 2015.***National conferences:*****Organizing committee member** of National seminar ‘Advances in Biotechnology 2014’ organized by Department of Biotechnology, Cochin University of Science and Technology on December 15 – 16, 2014**Member** of ‘National Science Day 2015’ Seminar on Frontier Lectures in Science Rersearch at Department of Biotechnology, Cochin University of Science and Technology on February 24, 2015.**Organizing member** Annual meeting of SBTI 2015 and National conference in recent advices in Biotechnology and Biomedical sciences, organized by Society for Biotechnologists, India during 17- 19 December, 2015.**Organising secretary,** National Conference on Recent Trends in Biotechnology (BioTrends-2016) from October 19 - 21, 2016 at the Earth System Sciences Organization - National Institute of Ocean Technology (ESSO-NIOT), Ministry of Earth Sciences, Govt. of India, Chennai, India**Organizing Committee Member,** National Symposium on Current Research in Biotechnology and Annual Meet of Society for Biotechnologists India (SBTI) on September 15th -16th, 2017 at JSS College of Pharmacy, Ooty, Tamil Nadu.**Advisory Committee Member,** KSCSTE sponsored National Seminar on Current Trends in Biotechnology on December 15, 2017 at St. Joseph’s College, Irijalakuda, Thrissur.***Talks:*****Organizing committee member** of ‘International Ozone Layer Preservation Day Observance 2014’ held at Department of Biotechnology, Cochin University of Science and Technology on 26th September 2014. |