RAMMOHAN COLLEGE

FACULTY ACADEMIC PROFILE

Name: Dr. Samarendra Nath Banerjee
Department: Zoology
Email: samban2kcal@yahoo.com

Academic background: M.Sc., Ph.D., F.Z.S.
Positions: Associate Professor
Awards/ Honours: i)He has been felicitated with Fellowship (FZS) of the Zoological Society, Kolkata in 2005. ii) He has received post-doctoral fellowship in Kansas University Medical Centre, U.S.A. in 2001. iii) Acted as Chairperson in a session of 11th All India Congress of Cytology and Genetics in Mahatma Gandhi Institute of Medical Sciences, Sebagram, Wardha in 2002. iv) Acted as the co-chairperson in a session in 10^{th} World Congress on advances in Oncology, Crete, Greece in 2005. v) Received UGC Travel Grant (abroad) award several times for attending International Conferences to present his findings in Greece (2005), U.K (2011), and Thailand (2015). vi) He has delivered popular lectures in School, College, Research Institute, University etc. He has also published a number of popular articles in newspaper, magazines and books.
Research interest:i) Dr.Banerjee is working in the field 'Genesis and genetics of cancer' with special reference to tumour angiogenesis and anti-angiogenic therapy using some herbal and anti-angiogenic componentsbesides UG and PG (PG department Physiology, Rammohan College and Zoology, Gurudas College) teaching.ii) In addition, his research area includes chromosomal endophenotype of anuran amphibia with reference to chromosomal sex determination and karyosystematics with banding technology. iii) He developed a modified technique to study insect chromosome which will be useful for practical classes as well as research purposes. iv)He has published more than 41research papers in reputed journals and has presented nearly 59 abstracts in national and international conferences. v)His work is funded by several minor and major research projects, University Grants Commission and Indian National Science Academy, New Delhi. vi) He is also attached as life member in different National as well as International Scientific organization/body/society. v) Guided more than 22 PG students for dissertation and three research students / scholars for PhD degree.

LIST OF RESEARCH PUBLICATION

A) Paper

1. Chakrabarti,S., **Banerjee,S.N**., Banerjee,S. & Bhattacharya,S. 1980: s t-T / st-st chromosome pair 1 mosaicism in black rat *Rattus rattus*. **Cell and Chromosome Newsletter** 3(3): 54-55.

2. Chakrabarti, S., **Banerjee, S.N**., Neogi, L.N. & Roychowdhury, S. 1983: C-band positive W-chromosome in female Indian frog *Rana tigrina.* **Experientia** 39: 321-322. (**Impact Factor: 7.014 in Year 2018) [**Cellular and Molecular Life Sciences is a peer-reviewed scientific journal covering cellular and molecular life sciences. It was established in 1945 as Experientia, obtaining its current name in 1994].

3. Chakrabarti,S., **Banerjee, S.N**., & Chakrabarti, A.1984 : In vivo sister chromatid exchange in Amphibia- a novel model for mutagenicity bioassay. **Indian Journal of Experimental Biology**22: 347-34. (**Impact Factor: 1.050 in Year 2019)**

4. Roychowdhury,S., **Banerjee, S.N**. & Chakrabarti,S .1984: Premature chromosome condensation in mouse bone marrow exposed *in vivo to* the leaf extractof *Lathyrus sativus.* **Cell and Chromosome Research** 7(1): 6-9.

5. Chakrabarti, S**., Banerjee, S.N**. & Chakrabarti, A. 1984: Introducing Amphibia as novel model for mutagenicity/carcinogenicity bioassay. **Environmental Mutagenesis Newsletter**, No.1 &2:17-18.

6. Chakrabarti, S., Roy Chowdhury, S. &**Banerjee, S.N.** 1985: Similar clastogenic sensitivity of mouse and rat chromosomes exposed in vivo to leaf extract of *Lathyrus sativus.***Indian Journal of Experimental Biology**. 23: 138-140. (**Impact Factor: 1.050).**

7. **Banerjee, S.N**. & Chakrabarti, S. 1986: Present status of sex chromosomes in some Indian Anurans. **Perspectives in Cytology & Genetics** 5: 119-124.

8. **Banerjee, S.N**. & Chakrabarti, S. 1987: A simple technique to detect satellite and satellite stalk in *Bufo melanostictus.* **Current Science** 56 : 41-42. (**Impact Factor: 0.756).**

9. **Banerjee, S.N.**& Chakrabarti, S. 1989: Heteromorphic sex chromosome in Indian water frog *Rana cyanophlyctis* with notes on the distribution of C-band positiveConstitutive heterochromatin. **Genetica Polonica**30 (3):177-180.

10. **Banerjee, S.N.** 1989: Differential clastogenic sensitivity of heterochromatin & euchromatin evidenced in amphibian *Bufo melanostictus.* **Perspective in Cytology and Genetics** 6: 491-496.

11. **Banerjee,S.N**. & Chakrabarti, S. 1989: In vivo sister chromatid differentiation inAmphibia. **Current Science** 58 (7): 401-403. (**Impact Factor: 0.756).**

12. **Banerjee,S.N**. & Chakrabarti, S. 1989: Different clastogenic sensitivity of heterochromatin andeuchromatin: Evidence from an in vivo study made on a sub-mammalian vertebrate.**In vivo**(Greece) 3 (1) : 55-60. (**Impact Factor: 1.600).**

13. **Banerjee, S.N**. 1991 : Amphibian Biomonitors **(Letters to the Editor) Bio Science** (U.S.A) 41(6) : 371**. (Impact factor 5.970)**

14. Mukherjee,S.P., **Banerjee, S.N**., Gupta, S. & Mukherjee,B.B. 1991: Effect of Water, salt and freezing stress of *Brassica juncea* (L) Czern(85-59). **Indian Journal of Experimental Biology** 29: 182-183. (**Impact Factor: 1.050).**

15. **Banerjee,S.N**., Bhattacharya, A. K. & Chakrabarti, S. 1992: Two Indian Anuran Populations on the decline. **Proceedings of the Zoological Society** 45 (Suppl. A):141-144.

16. **Banerjee, S.N**. & Chakrabarti, S. 1995: C-band polymorphism in three bufonid species. **Persp. Cytol. Genet**. 8: 177-183.

17. Saha,P., Sharma, N.C., Bhattacharya, S. &**Banerjee, S.N**. 1995: Genotoxic effect of Betel nut extract on bone marrow cells of *Mus musculus*.**Persp. Cytol. Genet**. 8: 363-369.

18. **Banerjee, S.N**., Banerjee, S. & Banerjee, S.K. 2002: Involvement of Vascular Endothelial Growth factor (VEGF) in 2-Methoxyestradiol induced tumour angiogenesis inhibition. Proc.Nat.Symp.on **Recent Trends on Molecular Physiology**, Kalyani University, W.B., India,IL-11,29-32.

19. **Banerjee, S.N**. & Chakrabarti, S. 2003: Chromosomal sex determination in Anura. **Hamadryad** 27 (2) 248-253. (**Impact Factor: 0.64).**

20. **Banerjee,S.N**., Sengupta,K.,Banerjee,S.,Saxena,N. & Banerjee,S.K. 2003: 2 - Methoxyestradiol exhibits a biphasic effect on VEGF-A in Tumour cells and upregulation is mediated through ERα: a possible signaling pathway associated with the impact of 2-ME_2 on proliferative cells. **Neoplasia** (U.S.A) 5 (5) 417-426.(**Impact factor 5.696)**

21. **Banerjee, S.N.**& Chakrabarti, S. 2004: G-banding patterns in the somatic chromosomes of Amphibia by application of Trypsin digestion technique. **Persp. Cytol. Genet**. 11: 195 - 199.

22. **Banerjee, S.N**. 2004: Genetic link to genital Cancers: Is it hereditary? **Persp. Cytol. Genet.** 11: 181-184.

23. **Banerjee, S.N**., Banerjee, S. & Banerjee, S.K. 2005: Anti-angiogenic therapy- a new avenue for Cancer treatment. Proc. In UGC sponsored State Level Seminar. Feb.18 – 19, 2005 p 26 -29.

24. Banerjee,J., Mukherjee, P., Gupta,S.K. &**Banerjee, S.N**. 2006:Inhibition of Tumour growth in response to anti-angiogenic therapy. **Persp. Cytol. Genet**. 12: 479 – 484.

25. Chakrabarti, S. &**Banerjee, S.N**. 2007: *Bufo melanostictus*, an anuran amphibian, as model for biomonitoring of environmental mutagens and carcinogens. **Hamadryad 31** (2) 242 - 249. (**Impact Factor: 0.64).**

26. **Banerjee,S.N**. & Chakrabarti,S. 2008: Anti-angiogenic therapy – New Avenue cancer treatment. **Zoological Research in Human Welfare** (ZSI) 267-272.

27. Chowdhury, S.,Mallick, S. & Banerjee**,S. N.** 2012: Fast declining of common Indian toad *Bufo melanostictus*: Role of chromosomal abnormality. **Recent Trends in Zoology with Special Emphasis on Animal Diversity, Fisheries and Genetics** pp 34-37 ISBN978-93-80663-52-4. Burdwan, W.B.India.

28. Mallick, S., Chowdhury, S &**Banerjee, S.N**. 2014: Karyological feature of *Bufo melanostictus* (Schneider, 1799)in some populationsof West Bengal.**Proceedings in National Conference on Biodiversity**, Kolkata January 16-18, 2014 P 379-384. ISBN- 978- 93-92258-17-9.

29. **Banerjee, S.N**. 2014: Modified flame drying technique to study chromosome. Grasshopper's testis. **Proceedings of the Zoological Society** ISSN 0373-5893; DOI 10.1007/s12595-014-0116-S (Springer).

30. Mallick,S.,Chowdhury, S &**Banerjee, S.N**. 2014: Digital malformation and chromosomal abnormality in *Rana tigrina* – the warning signal of declining amphibian population. **International Journal of Research in Bioscience**: 3(3) 48-56 ISSN 2319-2844.

31. Mallick,S., Paul, Goutam &**Banerjee, S.N**. 2015: Effect of 2-Methoxyestradiol (2ME) an anti-angiogenic agent on in vivo tumour bearing mouse. **Issues in Biological Science Pharmalogical Research** 3 (7): 63-70. ISSN 2350 – 1588.

32. **Banerjee,S.N**. 2017: Antiangiogenic therapy – new alternative avenue for cancer treatment. Invited Lecture-20 **UGC sponsored National Conference on Biophysics**: **Impact on Today's Society**. Victoria Institution (College) 7th and 8th September, 2016. P-13-18. ISBN 978-93-84652-12-8.

33. Banerjee, A., Mallick, S., Chowdhury. S and **Banerjee, S.N**. 2017: Evaluation of Antineoplastic Activity of Aqueous and Ethanolic Pomegranate Extracts Treated Experimentally Induced Ascitic Sarcoma-180 Tumor Cell Line.**UGC sponsored National Conference on Biophysics: Impact on Today's Society**.P-78.Victoria Institution (College) 7th and 8th September, 2016. P-56 -62. ISBN 978-93-84652-12-8

34. Chowdhury, S, Banerjee,A.,Mallick,S. and **Banerjee,S.N. 2017**: Carcinogenic Potentiality of Ethanolic Betel Nut Extract on experimentally induced solid tumour bearing mouse. **UGC sponsored National Conference on Biophysics: Impact on Today's Society**.P-76.Victoria Institution (College) 7th and 8th September, 2016. P-144-150.ISBN 978-93-84652-12-8.

35. Mallick, S. Chowdhury, S, Banerjee, A, Paul,G. and **Banerjee, S.N. 2017**: Combination of 2 Methoxestradiol(ME) and Cyclophosphamide inhibits tumour progression in S- 180 mouse tumour model system. **Nucleus** (Springer) 60(2) DOI 10.1007/s13237-017-0204-9 (**Impact Factor: 0.56).**

36. Mallick, S. Barua, A., Paul, G. and **Banerjee, S.N**. 2017: Combination of 2 Methoxestradiol(ME) and Cyclophosphamide inhibits tumour progression in S- 180 mouse tumour model system**. Journal of Cell Communication and Signalling** (Springer). 2018 Jun 12(2): 467–478. **(Impact factor: 3.788)**

37. Mallick, S., **Banerjee,S.N**. and Paul, G. 2018: Study of Haemoglobin Level and Tumour Growth on Mouse Ascites Tumour in Response to Combination Effect of 2-Methoxyestradiol & Cyclophosphamide. **Saudi Journal of Life Sciences**. DOI: 10.21276/haya.201 8.3.2.2 P-105-110.

38. Chowdhury, S, Banerjee, A., Mallick, S. and **Banerjee, S.N**. 2019: Cytotoxicity effect of BetelNut onseminal fluid fructose concentration and sperm motility of normal male mice. **Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences**. ISSN 2454 – 634. P-378 - 389. **(Impact Factor: 0.896 (2017-2018))**

39. Banerjee, A., Mallick, S., Chowdhury, S. and **Banerjee, S.N**. 2019: Protective and therapeutic efficacy of Pomegranate extracts in combination with 2-Methoxyestradiol (2-ME) on S-180 Ascitic tumour cells. **Nucleus (Springer)** 62:89–97. (**Impact Factor: 0.56).**

40. Banerjee, S. N. 2020: Nucleolar Organizer Region (NOR) Polymorphism in Relationto Interspecific and Intraspecific Variability in Some Indian Anurans-A Review. **International Journal of Zoology and Animal Biology.** ISSN: 2639-216X (MEDWIN PUBLISHERS) 3 (3) 1- 6. DOI 10.1007/s13237-017-0204-9.

41. Chowdhury, S. and **Banerjee, S.N.** 2020: Evaluation of genotoxic and carcinogenic potentiality in betel nut extract treated Sarcoma – 180 tumour bearing mouse. **Journal of Advanced Scientific Research**. (ISSN – 0976 – 9595) 11 Suppl 5: 32 - 40**. (UGC approved)**

B) Abstract of Paper presented and accepted in National and International Conference (India and Abroad)

1. Neogi, L.N., **Banerjee,S.N**. & Roychwdhury 1983 : Sex chromosomes in Anura : Well differentiated C-band positive W-chromosome in female *Rana tigrina* Proc. 70th session of the Indian Science Congress,Tirupati,p-23. **(Oral presentation)**.

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2. **Banerjee,S.N**. & Chakrabarti, S. 1984: Disimilarity in C-band profile of threekaryologically identical Indian Anurans with suggested phylogenetic Homology.Proc. 71stsession of the Indian Science Congress, Ranchi,p-92. **(Oral presentation)**

3. Roychowdhury, S., **Banerjee,S.N**. & Chakrabarti,S. 1984: Cytotoxic effects of Lathyrogen on the somatic cells of two different rodents.Proc. 71st session of the Indian Science Congress, Ranchi,p-92.

4. Chakrabarti,S. &**Banerjee, S.N**. 1984 : In vivo sister chromatid exchanges(SCE) in Amphibia -a novel model for cytogenetic assay of environmental mutagens. 5th All India Congress of Cytology & Genetics,Bhubaneswar,S-1.6

5. **Banerjee, S.N**. & Chakrabarti, S. 1985: Differential rates of SCEs in heterochromatin and euchromatin as in vivo study with a submammalian vertebrate. Proc.72nd Session of the Indian Science Congress,Lucknow, p-45.**(Oral presentation)**

6. Roychowdhury, S., **Banerjee,S.N**. & Chakrabarti, S. 1985 : Genotoxic effects of Lathyrogen. Proc. 72nd Session of Indian Science Congress, Lucknow, p-6.

7. **Banerjee, S.N**. 1986: On the feasibility of using 6eclining as novel model for muta-genicity/carcinogenicity bioassay.Proc.73rd Session of the Indian Science Congress, Delhi, p-185. **(Oral presentation)**

8. **Banerjee,S.N**. 1987: Differential clastogenic sensitivity….in amphibian *Bufomelanostictus*.6th All India Congress of Cytology & Genetics, Jammu p- 11**(Oral presentation)**

9. **Banerjee,S.N**. & Chakrabarti, S. 1992 : Anuran populations are declining. Symposium on ZoologicalResearch in Relation to Man and Environment, Jadavpur,Calcutta.**(Oral presentation)**

10. Banerjee, S.N. & Chakrabarti, S. 1993: C-band polymorphism in three bufonidspecies. 8th All India Congress of Cytology &Genetics,Berhampur, p-36-37. **(Oral presentation)**

11. **Banerjee, S.N**. & Chakrabarti, S. 1994: Introducing Amphibia as novel modelfor mutagenicity/carcinogenicity bioassay.16th International Cancer Congress, New Delhi, p-398.**(Poster presentation**)

12. **Banerjee, S.N**. & Chakrabarti, S. 1995: G-banding pattern in the somatic chromosomes of *Bufo melanostictus* and *Rana cyanophlyctis*.Proc.82nd Indian Science Congress, Jadavpur,p-6.**(Oral presentation)**

13. **Banerjee,S.N**. & Chakrabarti, S. 1995: On the feasibility of using Amphibia as novel model for mutagenicity/carcinogenicity bioassay.14th Ann. Convention of Indian Association for Cancer Research, Shillong, p-16.**(Oral presentation**)

14. **Banerjee, S.N**. & Chakrabarti, S. 1995: Amphibians as good bioindicators of environmental degradation. National symposium on Perspective in Biodiversity, Jadavpur, p-38.**(Oral presentation**)

15. **Banerjee, S.N**. & Chakrabarti, S. 1997: The importance of the use of Amphibian system in cytogenetic research-a review.National symposium on Biology for sustainable development,Jadavpur, p-34.**(Oral presentation**)

16. **Banerjee, S.N**. 1998: Positive family history of Cancer pedigree based study insome parts of West Bengal, India. 17th Annual Convention of Indian Association for Cancer Research,Calcutta,p-77. **(Poster presentation**)

17. **Banerjee, S.N**. 1999: Positive family history of Cancer: is it hereditary?18th Annual Convention of Indian Association for Cancer Research,New Delhi,p-55. **(Oral presentation)**

18. **Banerjee, S.N**. 1999: Cancer is Genetic disease: Is it Hereditary?International symposium on cancer control in developing countries,Calcutta. **(Poster presentation**)

19. **Banerjee,S.N**. 2001 : Family history is an important indicator in genital cancers: Is itHereditary? 20thAnnual Convention of Indian Association for Cancer Research. Ahmedabad,Abstract, P-18. **(Poster and Oral presentation**)

20. **Banerjee,S.N**. & Chakrabarti, S. 2001: Variation in C-band distribution of four karyologically identical Indian anurans with suggested phylogenetic status.Chromosome Research 9 (Suppl 1)105. 14th International Chromosome Conference. Wurzburg, Germany.(Abstract **published in Chromosome Research but unable to attend at Germany**)

21. **Banerjee, S.N**., Banerjee, S., Lavallee, T.M. & Banerjee, S.K. 2001: The Dose dependent biphasic effects of 2-methoxyestradiol on vascular endothelial growth factor$_{165}$ expression in Tumour cells may modulate cellular proliferation & death. Symposium on Genes & Genetics to Molecular Medicine,October 30-31,2001.Stowers Institute for Medical Research, Missouri, U.S.A. **(Poster presentation at U.S.A**)

22. **Banerjee,S.N**., Banerjee, S. & Banerjee,S.K. 2002. Involvement of VEGF in 2-methoxyestradiol induced cell proliferation inhibition in MCF-7 and GH_3 tumour cell lines.

National Symposium of Recent trends on Molecular Physiology,4th-6th February,2002, Kalyani University, Kalyani,W.Bengal)(**Oral Presentation)**

23. **Banerjee,S.N**. & Chakrabarti,S. 2002. G-banding pattern in Amphibia. 11th All. Ind. Congress of Cytology& Genetics,28-30 Oct, 2002, MGIMS,Wardha,India.(**Oralpresentation**)

24. **Banerjee,S.N**. 2002. Genetical link to genetical cancers-Is it hereditary? 11th AICCG,28-30 Oct,2002,MGIMS,Whardha,India.(**Oralpresentation**)

25. **Banerjee, S.N.**, Banerjee,S. & Banerjee,S.K.2002 Involvement of VEGF in 2-ME induced cell proliferation inhibition. International Symposium on Mole. Endocrinology & Cellular signals.14-16th Nov., 2002, IICB,Jadavpur,Kolkata,India.**(Poster presentation**)

26. **Banerjee,S.N**., Banerjee,S & Banerjee,S.K. 2003 : Treating cancer by anti-angiogenic drug-2-methoxyestradiol,the inactive,end metabolite of estradiol. National Symp. on Assessment and Management of Bioresourses,28th-30th May,2003. Univ. of North Bengal, India.P-37(Oral **Presentation**)

27. **Banerjee,S.N**., Banerjee,S. & Banerjee,S.K. 2005:Role of VEGF in 2 Methoxyestradiol induced tumour cell proliferation inhibition. Ind. J. Medical. Research. (Suppl)121: February,24th IACR and International Symposium on Cervical Cancer. New Delhi, P-52(**Oral Presentation**)

28. **Banerjee, S.N**. 2005. Inhibition of metastasis by anti-angiogenic therapy-New avenue for cancertreatment. UGC sponsored State Level Symposium, 18-19 February,2005,S.G.B.College,Hooghly,W.B. P- 11(Invited **talk**)

29. **Banerjee,S.N**. & Banerjee, S.K. 2005 : New approaches to cancer therapy- Antiangiogenic therapy. National Seminar on Molecules to Man, B.U. Burdwan Feb 24-25, 2005.

30. **Banerjee,S.N**. & Banerjee,S.K. 2005: 2-Methoxyestradiol induced tumour angiogenesis inhibition – A new strategy for cancer treatment. Abstract No:250. 10th World Congress in Advances on Oncology & 8th International Symposium on Molecular Medicine, Crete, Greece,13-15 October,2005**(Invited Talk at Crete,Greece)**

31. **Banerjee,S.N**. and Banerjee,S.K. 2007: Antiangiogenic therapy – New Avenue for Cancer Treatment. National Symposium on Dimension in Zoological Research, C.U. Kolkata 23-25, March 2007. (**Ora**l **presentation**)

32. **Banerjee, S.N**. and Banerjee,S.K. 2007:Inhibition of tumour angiogenesis by anti-angiogenic therapy. Symposium on Recent Trends in Cancer Research and Treatment November 1-3, 2007. Chittaranjan National Cancer Institute, Kolkata.(**Oral presentation**)

33. **Banerjee,S.N**. and Banerjee,S.K. 2009: Inhibition of tumour angiogenesis by anti-angiogenic drug. International Conference on Integrative Physiology. November 12-14th 2009 Science city, Kolkata,India.**(Oral Presentation**)

34. **Banerjee, S.N**. 2011: Familial risk to cervical cancer – is it hereditary. 30th Annual Convention of Indian Association for Cancer Research and International Symposium on Signaling network and Cancer. February 6 – February 9, 2011, IICB, Kolkata(**Poster presentation)**

35. **Banerjee,SN**. & Chakrabarti,S. 2011. Constitutive heterochromatin and Nucleolar Organizer Region (NOR) polymorphism in some Indian anurans with suggested phylogenetic status. Abstract accepted in the 18th International Chromosome Conference, Manchester University, and U.K.29 August – 2nd September, 2011**(Poster presentation at Manchester,U.K.).**

36. Mahapatra,R, Ray,D., Mallick, S. &**Banerjee, S.N**. 2011: Targeting tumour vasculature. National Conference on Interface of Science & Environment The 13th Annual Meeting of the Society for Science and Environment. 24th -26th November 2011, Kolkata.P – 89.

37. Chowdhury,S.,Mallick, S. &**Banerjee,S. N**. 2011: Fast declining of common Indian toad *Bufo melanostictus*: Role of chromosomal abnormality. UGC Sponsored Seminar at Kulti College, Burdwan, W.B. 28th -29th November 2011 P- 61 (poster presented by S. Chowdhury).

38. **Banerjee, S.N**.2011: Anti-angiogenic Therapy – A new avenue for cancer treatment. UGC Sponsored Seminar at Kulti College, Burdwan, W.B. 28th -29th November 2011 P- 59 (**Invited Talk).**

39. **Banerjee, S.N**. and Mallick, S. 2012: Anti-angiogenic therapy on in vivo tumour bearing mouse model system. Invited Talk 3rd International Cancer Research Symposium: Defining and Translating Science for Disease prevention and Therapy in Kolkata,India, 19 -21 December, 2012.Abstract published in J Cell Communication Signaling (**Invited Talk)**

40. Chowdhury,S., Mallick, S., Roy, R.B., Ghosh,P and **Banerjee,S.N**. 2012: Effect of Bleomycin on in vivo tumour angiogenesis using S-180 tumour bearing mouse. 3rd International Cancer Symposium. Abstract published in J Cell Communication Signaling: 7(1) 9 ((poster presented by S. Chowdhury)

41. Mallick, S., Chowdhury,S and **Banerjee,S.N**. 2012: Carcinogenic and mutagenic effect of betel nut extract – is it angiogenic. 3rd International Cancer Symposium, Kolkata, India.

Abstract published in J Cell Communication Signaling: 7(1) 9 (poster presented by S. Mallick)

42. Mallick, S., Chowdhury, S &**Banerjee, S. N.** 2014: Karyological feature of *Bufo melanostictus* in some populationsof West Bengal. Proceedings in National Conference on Biodiversity, J.U. Kolkata. January 16-18, 2014 (poster presented by S. Mallick).

43. Mallick, S. and **Banerjee, S.N**. 2015: Effect of 2 Methoxyestradiol and Cyclophosphamide on S- 180 Mouse tumour model system. 32nd Indian Association for CancerResearch, Jaipur, February 19th -21st February, 2015 (poster presented by S. Mallick).

44. Chowdhury, S, Banerjee, A. and **Banerjee, S.N**. 2015: Effect of betel nut extract on S-180 tumour bearing mouse- *Mus musculus.* 34th Indian Association for Cancer Research, Jaipur, February 19th -21st February,2015 (poster presented by S. Chowdhury).

45. **Banerjee, S.N**. 2015: Paper presentation 'Nucleolar organizer region polymorphism…'for 5th AsianChromosome Colloquium, Bangkok, Thailand, April 29-May 1,2015.(Invited **Talk at Bancock, Thailand)**

46. Banerjee,A, Chowdhury, S, Mallick, S. and **Banerjee, S.N**. 2015: Cytotoxic effect of supari or betel nut extract on Sarcoma -180 ascitic tumour cell line. Perspectives in Animal Sciences: Research and application, 23rd and 24th November,2015. UGC sponsored National seminar, Midnapore College, Midnapore, W.B. India.

47. Chowdhury, S, Banerjee, A.,Mallick S and **Banerjee, S.N. 2015**: Correlation of fructose concentration and frequencies of sperm head abnormalities of betel nut extract treated normal mice. Perspectives in Animal Sciences: Research and application, 23rd and 24th November, 2015. UGC sponsored National seminar, Midnapore College, Midnapore, W.B. India.

48. Banerjee, A, Chowdhury, S, Mallick, S. and **Banerjee, S.N.** 2015: Genotoxic potentiality of ethanolic betel nut extract and its role in carcinogenicity on Sarcoma -180 tumour cell line. FIPSPSI (Physiological society of India), Physiology Department,Calcutta University W.B. India.18 - 20 December 2015.

49. **Banerjee, S.N**. and Mallick, S. 2015; Targeting Tumour vasculature to induce tumour regression – A new avenue for cancer therapy. FIPSPSI (Federation of Indian Physiological Society and Physiological society of India), Physiology Department, Calcutta University W.B. India- 78: 18 - 20 December 2015**. (Invited Talk)**

50. Mallick, S., Chowdhury, S., Paul, G and **Banerjee, S.N. 2015**: Combination of 2 – Methoxyestradiol and Cyclophosphamide (CP) inhibits tumour regressionin S- 180 mouse tumour. 17th All India Congress of Cytology and Genetics. Indian Institute of Chemical Biology, Kolkata,W.B. India- P- 46. 22 - 24 December 2015. (**Poster presentation**)

51. **Banerjee, S.N. 2016**: Anti-angiogenic Therapy-New alternative Avenue for Cancer Treatment UGC sponsored National Conference on Biophysics: Impact on Today's Society, 7th& 8th September,2016. Victoria Institution (College), Kolkata., W.B. **(Invited Talk)**

52. **Banerjee, S.N. 2018**: Tumour angiogenesis. 18th All India Congress of Cytology and Genetics 29th – 31st January 2018. Indian Institute of Chemical Biology, Kolkata.,W.B. **(Invited Talk)**

53. Banerjee, A. and **Banerjee, S.N.** 2018: Protective and therapeutic efficacy of Pomegranate extracts in combination with 2-Methoxyestradiol (2-ME) on S-180 Ascitic tumour cells. 18th All India Congress of Cytology and Genetics 29th – 31st January 2018. Indian Institute of Chemical Biology, Jadavpur. (**Presented by Banerjee, A)**

54. Banerjee, A. and **Banerjee, S.N.** 2018: Germ cell abnormality in S-180 ascitic tumour bearing mouse.subjected to PGE and ME. 37th IACR convention 23rd -25th February 2018, Bose Institute Salt campus.**(Presented by Banerjee, A**)

55. **Banerjee, S.N.** 2019: A new perspective in the field of Chromosome research: Role of chromosomal arrangements in evolution and cancer. National conference on Future India: Science and Technology, 27th and 28th February, Organised by City college and Indian Science Congress Association,Kolkata Chapter A – 141. Kolkata.,W.B**(Oral Presentation**).

56. Banerjee, A. and **Banerjee, S.N.** 2019: Therapeutic efficacy of pomegranate extract in combination with 2 – Methoxyestradiol. National conference on Future India: Science and Technology, 27th and 28th February, Organised by City college and Indian Science Congress Association, Kolkata Chapter A - 83. Kolkata., W.B (**Presented by Banerjee, A)**

57. Chowdhury, S., Banerjee, A. and **Banerjee, S.N.** 2019: Cytotoxic potential of betel nut extract on S- 180 tumour bearing mouse. National conference on Future India: Science and Technology, 27th and 28th February, Organised by City college and Indian Science Congress Association, Kolkata Chapter A - 77. Kolkata., W.B. **(Poster Presentation)**

58. Chowdhury, S. and **Banerjee, S.N.** 2019: Evaluation of genotoxic potentiality by DNA Comet Assay in betel nut extract treated tumour bearing mice. 19th All India Congress of Cytology and Genetics 2nd – 4th December 2019. Indian Institute of Chemical Biology, Jadavpur. (**Presented by S. Chowdhury).**

59. **Banerjee, S.N.** 2020: Alterations of karyotype in Evolution and Cancer – the new Avenue in Chromosome research. National Seminar on Diversity in the era of globalization Challenges and Management. 22nd and 23rd February, Organized by Bidhannagar college, Government of West Bengal P-50 **(Oral Presentation**).

C. Books published:

1. **Banerjee, S.N**. 1997, 2004: Text Book of Life Science (School level Class –VIII)
2. **Banerjee, S.N.** 1998, 2004: Text Book of Life Science (School level Class-VII)
3. **Banerjee, S.N**. & Mukherjee, S.P. 2005: Text Book in Biology class-XI (Bengali Version)
4. Ghosh, A., **Banerjee, S.N**., Banerjee, S., et al. 2018: class-XI (English version) Text Book of Biology. Chaya Prakashani, Kolkata.
5. **Banerjee, S.N**. 2017: Tumour angiogenesis and anti-angiogenic therapy p-1-52. Lambert Academic Publishing, Germany. ISSN 978-3-330-31881-6 (**on Research topic**)

D) List of Popular articles:Published in different Magazines, Newspaper etc.

1. Banerjee, S.N.1984: Virus O Cancer, Pran O Paribesh (Bengali Magazine) 4:29-32.
2. Banerjee, S.N.1984: Reptiles. Letter to the Editor, Science Reporter, 21: 1.
3. Banerjee, S.N.1987: Do prions carry genetic materials, Science Reporter, 24: 291.
4. Banerjee, S.N.1988: Hereditary deaf mutism, Jyan O Bigyan, 41: 190-191.
5. Banerjee, S.N.1988: Honey Bee, Jyan O Bigyan, 41: 403-407.
6. Banerjee, S.N.1989: Do somatic mutations induce cancer? Science Reporter, 26: 42-43.
7. Banerjee, S.N.1989: Haemophilia – clue from genetic engineering, Science Reporter, 26: 22-23.
8. Mukherjee,S.P. & Banerjee, S.N.1989: On air pollution & production of crop. Jyan O Bigyan, 42: 349-341.
9. Mukherjee,S.P. & Banerjee, S.N.1990: Diet and Cancer, Aajkal (Daily Newspaper) 8thJanuary, p-6.
10. Mukherjee,S.P. & Banerjee, S.N.1990: Allergy and pollen grains, Jyan O Bigyan, 43: 232-234.
11. Banerjee, S.N.1990: SNURPS, Science Today (2001), June 24: 29-30.
12. Mukherjee, S.P. & Banerjee, S.N.1990: On antibiotics, Jyan O Bigyan, 43: 424-425.
13. Banerjee, S.N & Mukherjee,S.P. 1990: CFC & pollution. Jyan O Bigyan, 43: 24.

14. Banerjee, S.N & Mukherjee,S.P. 1991: Biological control of pest, Ganashakti,18 March, P-3.
15. Mukherjee,S.P. & Banerjee, S.N.1991:Alternatives of Petroleum,Ganashakti,July,P-3.
16. Mukherjee,S.P. & Banerjee, S.N.1991: On opium seeds, Jyan O Bigyan, 44: 529-530.
17. Banerjee, S.N. & Das, S.B. 1992: Uterine Cancer. Jyan O Bigyan, 45: P-121.
18. Banerjee, S.N & Mukherjee, S.P. 1992: Environmental pollution and strom. Jyan O Bigyan, 45: 496.
19. Banerjee, S.N & Mukherjee, S.P. 1993: Substitute of CFC. Jyan O Bigyan, 45: 542.
20. Banerjee,S. & Banerjee, S.N.1995: Dinosaur families and their extinction. Jyan O Bigyan, 48: 304-307.
21. Banerjee, S.N.1995: XVI International Cancer Congress. Jyan O Bigyan, 48: 458-459.
22. Banerjee, S.N.1997: Cloning – its impact and problem in society, College Magazine, Rammohan College p-17-18.
23. Banerjee, S.N.2002: Cancer – its past present and future, College Magazine, Rammohan College p-23-25.
24. Banerjee, S.N.2003: Analytical approach of biological science by application of Mathematical methods. College Magazine, Rammohan College p-83-87.
25. Banerjee, S.N.2005: Thalassemia, Katwar Kalom (Bengali Magazine).
26. Banerjee, S.N. 2006: Cancer, Katwar Kalom (Bengali Magazine)
27. Banerjee, S.N.2007: Role of Somatic mutations in Cancer induction, Zoion, Rammohan CollegeP 3-5.
28. Banerjee, S.N.2014: Minoans in the Crete – the ancient civilization. Journal –Golden jubilee Celebration, Rammohan College,Kolkata P 112-113.

E) Ph.D Scholar Supervised

1. **Sm Srabantika Mallick Ph.D awarded in 2018 under joint supervision Prof. Goutam Paul and Dr. Samarendra Nath Banerjee) from Kalyani University on " Anti-angiogenic therapy on tumour model". Awarded**

2. **Sri Sudipta Chowdhury Registration process complete under my supervision for Ph. D degree from Calcutta University on "Genotoxic effect of betel nut extract on tumour model". (Registration process complete)**

3. **Smt Anasua Banerjee Registration process complete under my supervision for Ph. D degree from Calcutta University on "Combination therapy on tumour model". (Registration process complete)**

F) <u>Awards, Fellowship</u>

1. **Research Scholar (UGC) for Ph.D. degree (Burdwan University)**
2. **Post-doctoral fellowship in KUMC, Kansas, U.S.A**
3. **FZS Awarded by the Zoological Society, Kolkata**
4. **UGC Travel Grant Award to deliver lecture and act as Co-chairperson in the 10th World Congress on Cancer in Crete, Greece 2005.**
5. **UGC Travel Grant Award to attend and present Paper in the 18th International Chromosome Conference in Manchester, U.K. 2011**
6. **UGC Travel Grant Award to deliver talk in International Conference 5th Chromosome Colloquiam in Kesertsart University, Thailand. 2015.**

G) <u>Research Project Awarded</u>

No	Title	Duration	Funding Agency
1	Genotoxic effect of the Betel nut extract.	One Year (1989-'90) Completed	INSA, New Delhi
2	*In vivo* Sister Chromatid Exchange.	Two Year (1989-'91) Completed	UGC, New Delhi
3	Chromosomal Polymorphism in *Bufo sp*	Two Year (1992-'94) Completed	UGC, New Delhi
4	Types of Sex chromosome in Amphibia.	Two Year (1999-'01) Completed	UGC, ERO, Kolkata
5	Dissimilarity in Constitutive heterochromatin.	Two Year (2002-'04) Completed	UGC, ERO, Kolkata

6	**Familial association of Cervical Cancer- is it hereditary?**	**Two Year (2005-'07) Completed**	**UGC, ERO, Kolkata**
7.	**Nucleolar organizer region polymorphism**	**18 Months (2009-'11) Completed**	**UGC, ERO, Kolkata**
8.	**Preclinical assessment of 2-Methoxyestradiol (2-ME) as anti-angiogenic compound: Effect of 2ME on experimental tumour growth**	**Three Years (2013 - 17) (Major Research project) Completed**	**UGC, New Delhi**

I) Performed important Academic Job/Responsibility as resource person

- **Acted as recorder in the Symposium** on "Zoological Research" on March 1- 4, 1992 organised by Zoological Society,Kolkata.

- **Acted as Chairperson for the Scientific session** during 11th All India Congress of Cytology & Genetics, MGIMS, Sebagram, Wardha, October2002.

- **Acted as Chairperson for the Experimental Therapeutic session** in the 10th World Congress in Advances on Oncology & 8th International Symposium on Molecular Medicine, Crete, Greece, 13-15 October, 2005.

- **Delivered Talk** on "Thalassemia" in Rammohan College in Thalassemia Awareness Programme,12.11.2003
- **Delivered talk as speaker on "Cancer" in Live in Ph**one, Health Fair, Katwa, Burdwan, W.B., February, 2004.

- **Invited as a Speaker in a State level Seminar, SGB Collegee,** Bagati, Hooghly, W.B.,February 2005

- **Invited as a Speaker in the 10th World Congress in Advances on Oncology and 8th International Symposium on Molecular Medicine,Crete,Greece**,13-15 ,October,2005

- **Invited as a speaker in Hooghly Mohsin College**,W.B. 19th February,2007

- **Invited as a speaker in Naba Ballyguange College** in a T.B. and Cancer Awareness programme ,16th April,2007.

- **Delivered talk as speaker on "Cancer"** in Rammohan College , Kolkata on 11th May 2011.

- **Invited as a Guest Speaker in a UGC sponsored National level Seminar, Kulti College ,** Kulti, West Bengal, 28th-29th November,2011

- **Invited as a speaker in 3rd International Cancer Research Symposium**19 December- 21 December 2012, Kolkata, India

- **Invited speaker at Kesertsart University, Thailand for 5th Asian Chromosome Colloquium 29 April – 1st May, 2015**

- **Invited as a speaker in UGC sponsored National Symposium at Victoria College,Kolkata**19 December- 21 December 2017, Kolkata, India

- **Invited as a speaker in National symposium of Physiological Society of India**19 December- 21 December 2012, Kolkata, India

- **Invited as a speaker 18th All India Congress of Cytology and Genetics**Indian Institute of Chemical Biology, Kolkata - January 2018, Kolkata, India

- **Acted as a Co-chairperson inNational conference on Future India: Science and Technology, 27th and 28th February, Organised by City college and Indian Science Congress Association, Kolkata Chapter. Kolkata., W.B**

J) MembershipinScientific Societies

1. Life member in Indian Association of Cancer Research, Mumbai.
2. Life member in Zoological Society, Kolkata
3. Life member in All India Cong. of Cytology & Genetics, Kolkata
4. Life member Indian science Congress Association.
5. Member in the Executive Committee, Raja Ramona Roy Memorial Museum, Kolkata
6. Member Secretary, Animal House Facility, IAEC, Rammohan College