

CURRICULUM VITAE

- 1. Name** : **ALOK KUMAR HAZRA**
- 2. Designation** : **Scientist**
- 3. Present Address** : Quality Testing Laboratory
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Ramakrishna Mission Vivekananda Educational &
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- 5. Date of birth** : 16th February, 1963
- 6. Nationality** : Indian
- 7. Marital status** : Married

8. Educational qualification:

Degree	Institution	Discipline	Year
B.Sc.	CalcuttaUniversity	Chemistry	1983
M.Sc.	CalcuttaUniversity	Chemistry	1985
Ph. D.	JadavpurUniversity (Bose Institute)	Science	1993

9. Research/ Teaching Experience:

Name of the Employer / Department	Date of Joining	Date of Leaving	Post held	Nature of Work done
Department of Chemistry Bose Institute 93/1 APC Road Calcutta – 700 009	12-04-1987	01-04-1990	JRF & SRF	RESEARCH
Department of Pharmacology, Dr. B.C. Roy PGIBMS, 244B, AJC Bose Road, Calcutta – 700 020	15-04-1990	31-10-1997	SRF & RA	RESEARCH
Department of Pharmacology College of Medical Sciences Bharatpur, NEPAL	01-11-1997	31-03-2000	Assistant Professor	TEACHING
S.N.P. centre for Neurosciences Calcutta University, 244B, AJC Bose Road, Calcutta – 700 020	24-04-2000	30.9.2012	Senior Research Associate	RESEARCH
Quality Testing Laboratory Ramakrishna Mission Ashrama RKMVU campus Narendrapur Kolkata – 700 103	16-10-2012	30.7.2017	Research Scientist	Research and Development
IRDM Faculty Centre Ramakrishna Mission Vivekananda Educational & Research Institute Ramakrishna Mission Ashrama Narendrapur Kolkata – 700 103	1.8.2017	Till date	Scientist & In-charge of Quality Testing Laboratory	Teaching and Research

10. Research experience

Worked as a graduate student in the Department of Chemistry, Bose Institute and obtained Ph.D. degree from the University of Jadavpur, Calcutta in 1993. The pre-doctoral research is mainly concentrated on the bioactive lipids from marine organisms. That work has been cited in the *Pharma Asia* bulletin as a potential source of PUFA (polyunsaturated fatty acids) from Indian coastal waters. He has been associated since 1990 in the Dept. of Pharmacology, University College of Medicine and has been working on the Development of Drugs from Ocean launched by Dept. of Ocean Development (now Ministry of Earth Sciences, MoES), Govt. of India. A milestone in his

research career is that he has developed a drug from marine poisonous fishes having promising hypolipidemic effect in comparison to marketed drugs. A *Patent* is in his credit and the drug is now awaiting DCGI compliance for clinical phase I trial in collaboration with CDRI, Lucknow. Now he is attached as Research Scientist at Quality Testing Laboratory, Ramakrishna Mission Ashrama, Narendrapur. The prime responsibility in this assignment is to prepare SOP, method validation related to the analysis performed using instruments such as HPLC, GC, GC-MS, HPTLC, and AAS for medicinal plants, herbal medicines in any dosage form.

Research Interest: Natural products from plant and marine sources are the recent trend in newer drug development research. Especially research and development on phytopharmaceuticals are acclaimed worldwide as the resurgence of herbal drugs prevails. Therefore bioactivity guided natural product discovery are immensely tried as research theme. I would like to utilize my experience in natural products e.g. isolation, characterization and synthesis of active molecules as well as in pharmacology e.g. determining bioactivity by pharmacological and biochemical methods, for newer drug development research.

11. EXTRA CURRICULAR ACTIVITIES

Acting as a member in the Scientific Council of a book entitled **TRADITIONAL MEDICINE**, Editor-in-chief Dr. Biswapati Mukherjee, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1993.

Actively participated in UGC countrywide classroom programme on "*Tale of fishes that serve deadly dishes*", produced by EMRC, St. Xaviers College, Calcutta, telecasted on 5th. & 12th. July, 1994, National Network, Doordarsan, India.

12. AWARDS

Qualified National Eligibility Test (**NET**) conducted by University Grants Commission, Government of India in 1989.

13. TEACHING EXPERIENCE

Assistant Professor in the Department of Pharmacology, College of Medical Sciences, Bharatpur, Nepal -1997 to 1999.

Guest Lecturer in the Dept. of Pharmacy, College of Pharmacy, Salipur, Orissa in January 2008.

Visiting Scientist in Dept. of Biological Sciences, Presidency University, Kolkata, 2015.

Visiting Scientist in Dept. of Biotechnology, Techno India University, Sector-V, Salt Lake.

14. Scientific Project completed

Act as **Co-Investigator** for a scientific project entitled '*Studies on Acute and Sub-acute Toxicity of Black Tea containing Iron*' sponsored by Tea Board, Govt. of India in 2012. (completed)

Act as **Co-Investigator** for a scientific project entitled '*Anticancer efficacy of Black Tea Polyphenols*' sponsored by NTRF, Tea Board, Govt. of India during 2014-17. (completed)

Act as **Co-Investigator** for a scientific project entitled '*Assessment of environmental contaminants in raw herbal materials used in medicinal products in West Bengal*' sponsored by DST, Govt. of West Bengal during 2015-17. (Sanction No. 1082(Sanc)/ST/P/S&T/9G-12/2014 dated 24.02.2015) (Ongoing)

16. PUBLICATIONS

A. Patent: One (1)

A Process for the Extraction of Non-toxic Oil Having High Eicosapentaenoic Acid and Docosahexaenoic Acid content from the liver of Marine Non-edible Fishes, **Alok K. Hazra**, Biswapati Mukherjee and Somiranjan Ghosh, The Gazette of India, NO35, Part III, Sec 2, p. 1183, New Delhi, Saturday, Aug 30, 1997. Patent granted by the Government of India, No. 181673 dt.23.07.1997.

B. Scientific Papers Published in National and International Journals: Twenty five (25)

Alok K. Hazra, Somiranjan Ghosh, Shivaji Banerjee and Biswapati Mukherjee, Studies on Lipid and Fatty Acid Compositions of Puffer Livers from Indian Coastal Waters with Seasonal Variation, *Journal of American Oil Chemists' Society (JAOCS)*, **75**, 1673-1678, (1998).

Alok K. Hazra, S. Ghosh, Shivaji Banerjee and B. Mukherjee, 'The Multifaceted Health Benefits of Fish oil', *Science and Culture*, **69**, 326-330 (2003).

Somiranjan Ghosh, **Alok K. Hazra**, Shivaji Banerjee and Biswapati Mukherjee, The Seasonal Toxicological Profile of Four Puffer Fish Species Collected along Bengal coast, India, *Indian Journal of Marine Sciences*, **33**, 276-280 (2004).

Somiranjan Ghosh, **Alok K. Hazra**, Shivaji Banerjee and Biswapati Mukherjee, Ecological Monitoring for Ascertaining the Biosafety of Liver Lipids from Some Indian Marine Puffer Fishes, *Fisheries Science (Japan)*, **71**, 29-37 (2005).

Alok K. Hazra and Biswapati Mukherjee, Indian Perspective of Fish oil in health and Chronic Diseases, *Proc. of AP Akademi of Sciences*, **9**, 151-158 (2005).

Deepanjan Banerjee, Shrabana Chakraborty, **Alok K. Hazra**, Shivaji Banerjee, Jharna ray and Biswapati Mukherjee, Antioxidant activity and total phenolics of

some mangroves from Sundarbans, *African Journal of Biotechnology*, **7**, 805-810 (2008).

SapkotaPramanik S, Sur TK, **Hazra AK**, Banerjee D, Pramanik T, Debnath PK, Bhattacharyya D. Antioxidant and antistress activities of standardized *Puerariatuberosa* (Roxb.ex.Willd.) root extract in Wistar rats. *Inventi Rapid Ethnopharmacology* 2010; 1(2):1-4.

Deepanjan Banerjee, **Alok K.Hazra**, ShrabanaChakraborty, Jharna Ray, Anandadeb Mukherjee, Biswapati Mukherjee, Variation of total phenolic content, flavonoid and radical scavenging activity of *Ipomoea pes-caprae* with respect to harvesting time and location, *Indian Journal of Geo-Marine Sciences*,**42**, 106-109 (2013).

D. Banerjee, **A. K. Hazra**, T. Seal, T. Sur, D. Bhattacharya, J. Ray, A. Mukherjee, B. Mukherjee. Antioxidant and Anti-inflammatory Activities of Different Solvent Extracts and Isolated Compounds of *Ipomoea pcaprae* (L) Sweet of Sunderban Mangrove Eco-complex, *Asian Journal of Chemistry*,**25**, 4997-5000,(2013).

Adhikari A, **Hazra AK**, Sur TK. Detection of arecoline by simple HPTLC method in Indian non-tobacco pan masala.*Journal of Advanced Pharmaceutical Technology & Research* 2015; 6(4):195-199.

Sur TK, Chatterjee S, **Hazra AK**, Pradhan R, Chowdhury S. Acute and sub-chronic oral toxicity study of black tea in rodents. *Indian Journal of Pharmacology* 2015; 47(2): 167-172.

Sur TK, **Hazra AK**, Bhattacharyya D, Hazra A. Antiradical and antidiabetic properties of standardized extract of Sunderban mangrove *Rhizophora mucronata*. *Pharmacognosy Research* 2015; 11(42): 389-394.

Sinha Mahapatra PK, Sur TK, **Hazra AK**, Mandal SC. Blood sugar lowering action of modified herbal formulation based on common spices. *Journal of Medicinal Plants Studies* 2016; 4(6):265-269.

Adhikari A, **Hazra AK**, Bhattacharya S, Seal T, Sur TK. Dietary polyphenolics supplementation with drinking black tea ameliorates gentamicin-induced nephrotoxicity in mice. *The International Journal of Pharmaceutical Science & Drug Research* 2016; 8(4): 189-194.

Sur TK, Hazra A, **Hazra AK**, Bhattacharyya D. Antioxidant and hepatoprotective properties of Indian Sunderban mangrove *Bruguiera gymnorrhiza* L. leave. *Journal of Basic Clinical Pharmacy* 2016; 7(3):75-79.

Ghosh S, **Hazra AK**, Sahu NC, Goswami R, Ghosal A, Mukherjee A, Heavy Metal Levels in Various Fodders in the Periphery of Kolkata, India, *Indian J. Anim. Nutr.* 2016. 33 (4): 490-493.

Bhattacharya S, Maity S, Pramanick D, **Hazra AK**, Choudhury M, HPLC of phenolic compounds, antioxidant and antimicrobial activity of bulbs from three *Ornithogalum* Species available in India, *Int. J. Pharm. Pharm. Sci.*, 2016, 8 (7), 187-192

Mahapatra Sinha PK, Sur TK, **Hazra AK**, Mandal SC. Phytochemical standardization of herbal formulation (PMM3) for blood sugar attenuating actions in Streptozotocin-induced rats. *Journal of Ayurveda and Integrated Medicinal Sciences* 2017; 2(4):26-33.

Sur TK, Adhikari A, **Hazra AK**. Risk of betel nut chewing: chemical and toxicological studies. *Toxicology International* 2017; 24(1): 39-45.

Indu R, Adhikari A, Ray M, **Hazra AK**, Sur TK, Das AK. Antioxidant properties of polyphenolic rich HPLC standardized extract of *Beta vulgaris* L. roots. *International Journal of Research & Development in Pharmacy & Life Science* 2017; 6(3): 2619-2624.

Mahapatra Sinha PK, Mandal SC, **Hazra AK**, Sur TK. Assessment of modified fenugreek on blood sugar lowering action in rats. *World Journal of Pharmaceutical & Life Sciences* 2017; 3(3): 188-193.

Bhattacharyya N, Mondal S, Moulik S, Paul S, Bhattacharyya S, **Hazra AK**, Ali Md.N, Adhikari A, Chatterjee A Effect of Black Tea Polyphenol on Cell-ECM Interaction and MMP. *American Journal of Plant Sciences*, (2017); 8: 856-866. <https://doi.org/10.4236/ajps.2017.84058>

Hazra AK, Sur TK, Chakraborty B, Seal T. HPLC analysis of phenolic acids and antioxidant activity of some classical Ayurvedic guggulu formulations. *Int. J. Res. Ayurveda Pharm.* 2018; 9 (1):1-6.

Salma U, Kundu S, **Hazra A K**, Ali M N, Mandal N. Augmentation of wedelolactone through in vitro tetraploid induction in *Eclipta alba* (L.) Hassk. *Plant Cell, Tissue and Organ Culture (PCTOC)*, <https://doi.org/10.1007/s11240-018-1381-1>.

Kundu S, Salma U, Ali MN, **Hazra AK**, Mandal N, Development of transgenic hairy roots and augmentation of secondary metabolites by precursor feeding in *Sphagneticola calendulacea* (L.) Pruski, *Industrial Crops & Products*, <https://doi.org/10.1016/j.indcrop.2018.05.009>.

C. Chapters contributed in Books & Proceedings: Five (5)

S. Ghosh, **Alok K. Hazra**, S.K. Mitra and Biswapati Mukherjee and Utpal Sadhu, *VishalayMaksa : JaibaSakriyapadartha Ki Janani*, Mahasagariasangsadhan, Ed. S.A.H. Abidiet *al.*, Department of Ocean Development (DOD), Govt. of India, pp. 107-123, New Delhi, 1994.

S. Ghosh, **Alok K. Hazra**, S.K. Mitra and Biswapati Mukherjee, *Poisonous Fishes : Potential Begetters of Bioactive Substances* in the book, Nutrients and Bioactive Substances in Aquatic Organisms, Ed. K. Devadasan *et al.*, Society of Fisheries Technologist (India), Cochin, pp. 44-58, 1994.

Shivaji Banerjee, Somiranjan Ghosh, **Alok Kumar Hazra**, Piyali Dutta, Shita Elizabeth Besra, J. Rajan Vedasiromoni, Debasis Bhattacharyya and Biswapati Mukherjee, *Puffer Toxin : Unusual Molecular Architecture* in the Proceedings, Tenth Asian Symposium on Medicinal Plants, Spices and other Natural Products', 18-30 Nov., 2000, Dhaka Bangladesh.

D. Banerjee, S. Chakrabarti, A.K. Chakraborty, Shivaji Banerjee, **A.K. Hazra** and B. Mukherjee, 'The Quality Control Methods and Good Manufacturing Practice (GMP) for Herbal Medicine', Proc. IUPAC Workshop on Development of Methodologies and Protocols on Documentation, Evaluation of Safety, Efficacy and Standardization of Herbal Medicine, 6-9 June, 2006, Dhaka, Bangladesh.

Sur, T.K. and **Hazra, A.K.**, *Anti-inflammatory Activity of Guggulu Formulation*. In: Botanicals in Integrated Health Care. Chatterjee SK (editor). The Agri Horticultural Society of India, Kolkata, 2011, pp. 142-147. (ISBN 978-81-905823-1-5).

D. Papers read before National & International Conferences: Twentynine (29)

Alok K. Hazra, Somiranjan Ghosh, R.K. Sadhukhan, S. Balial, S. Basak, S.L. Chakraborty and Biswapati Mukherjee, Puffer Fish Toxin : The Intriguing Nature, Abstract, International Seminar, Traditional Medicine. A Challenge of the Twentyfirst Century, Calcutta P. 924, page 163, 1992.

S. Ghosh, **A.K. Hazra**, S.K. Mitra and Biswapati Mukherjee, "Bioactive Compounds from Marine Poisonous Fishes" (Invited Lecture) Proc. of the Training Workshop on the Use of Chemical Techniques for the Study of Marine Products, C.D.R.I., Lucknow, p. 70, 1992.

Alok K. Hazra, S. Ghosh, R. Chakraborty, N.M. Roy and Biswapati Mukherjee, Lipid Lowering Agents from Marine Sources, Abstract (Invited Lecture), XXVI Annual Conference, Indian Pharmacological Society, Hisar, HYP 5, 1993.

S. Ghosh, S. Banerjee, **A.K. Hazra**, S. Balial and Biswapati Mukherjee, "Brine Shrimp : An Exquisite Technique to Assess Toxicity of Marine Natural Products",

Proc. of the 80th Session of the Indian Science Congress, Goa, Abstract No. 128, 1993.

A.K. Hazra, S. Ghosh and Biswapati Mukherjee, "Search of Bioactive Compounds from Indian Puffer Fishes", Proc. "Symposium on the Chemistry of Marine Natural Products", Andhra University, Waltair, 1993.

S. Ghosh, **A.K. Hazra**, R. Chakraborty, N.M. Ray and Biswapati Mukherjee, "Hypolipidemic Agents from Marine Sources with Special References to Poisonous Fishes", Abstract, Asian Symposium on Medicinal Plant and Spices (ASOMPS VIII), CP 160 (Invited Lecture), Malayasia, 1992.

S. Ghosh, **A.K. Hazra**, S. Banerjee, N.M. Ray and Biswapati Mukherjee, "Studies on Toxic Marine Fishes" (Invited Lecture), Symposium, Toxicological Aspects of Marine Life, XXVII Annual Conference, Indian Pharmacological Society, Bombay, Dec. 21-24, 1994.

S. Ghosh, **A.K. Hazra**, S. Banerjee, T.K. Sur, R. Chakraborty, N.M. Ray and Biswapati Mukherjee, "Indian Marine Puffers : Alternative Sources of Polyunsaturated Fatty Acids (PUFA)", Abstract, P1E24, p. 07, 64th Annual Meeting of Society of Biological Chemists (India), Lucknow, Oct, 6-8, 1995.

Biswapati Mukherjee, **Alok K. Hazra** and Somiranjan Ghosh, Compounds of Biomedical Importance from Marine Toxic Fishes", Abstract 57.3 (Invited Symposium Lecture), 64th Annual Meeting of Society of Biological Chemists (India), Lucknow, Oct. 6-8, 1995.

Biswapati Mukherjee, Somiranjan Ghosh, **Alok K. Hazra**, Shivaji Banerjee and Nilmadhab Roy, "Toxic Marine Fishes" Prodigious Chemistry and Pharmacology", Abstract, L13 (Invited Lecture), National Symposium and Natural Products Under UGC Programme, Andhra University, Nov. 4-6, 1995.

Alok K. Hazra, S. Ghosh, S. Banerjee and Biswapati Mukherjee, Bioactivity of the Compound Isolated from Indian Marine Puffers, Abstract, No. B037, IUPAC Symposium on the Chemistry of Natural Products, Chicago (USA), Sept. 15-20, 1996.

Alok Kumar Hazra, Somiranjan Ghosh, Shivaji Banerjee, Tapas Kumar Sur, Rana Chakraborty, Nilmadhab Ray and Biswapati Mukherjee, Fatty Acid Composition and Hypolipidemic Activity of Liver Lipids from Indian Puffers, Calcutta, **pp. 24**, p. 53, Sept. 23-25, 1997.

S. Ghosh, **A.K. Hazra**, S. Banerjee, T. Sur and B. Mukherjee, Hypolipidemic Activity of Puffer Liver Oil on Experimentally Induced Hypolipidemic Rabbit, "Frontiers in Pharmacology and Therapeutics in 21st Century", p. 136, 1-4 Dec., New Delhi, 1999.

S. Banerjee, S. Ghosh, **A.K. Hazra**, D. Bhattacharyya and B. Mukherjee, Isolation of Toxic Principle from Indian Marine Puffers, Frontiers in Pharmacology and Therapeutics in 21st Century, p. 141, 1-4 Dec., New Delhi, 1999.

Shivaji Banerjee, Somiranjan Ghosh, **Alok K. Hazra**, Piyali Datta, Shila E. Besra, R. Rajan Vedasiromoni, Debasis Bhattacharyya and Biswapati Mukherjee, Puffer Toxin : Unusual Molecular Architecture, invited lecture (IL41), Tenth Asian Symposium on Medicinal Plants, Spices and other Natural Products (ASOMPSX), p. 59, Dhaka, Bangladesh, 18-23 Nov., 2000.

Somiranjan Ghosh, **Alok Kumar Hazra**, Shivaji Banerjee and Biswapati Mukherjee, Ecological Importance of Indian Marine Puffers, Tenth Asian Symposium on Medicinal Plants, Spices and Other Natural Products (ASOMPS X), **pp. 42**, p. 226, Dhaka, Bangladesh, 18-23 Nov. 2000.

Shivaji Banerjee, **Alok Kumar Hazra**, Somiranjan Ghosh, Piyali Datta, Shila Elizabeth Besra, J. Rajan Vedasiromoni, Debasis Bhattacharyya and Biswapati Mukherjee, Marine Fish Toxin : Chemistry and Pharmacology, Abstract, 10th International Symposium on Natural Product Chemistry, Karachi, p. 63, 2006.

Banerjee D, Chakrabarti S, Chakraborty AK, Banerjee S, **Hazra AK** and Mukherjee B, Antioxidant Capacities and Phenolic Compounds Content of Mangrove Halophytes in Sunderban Estuarine Eco-complex, Third Biennial Meeting of SFRR-Asia and Sixth Annual Meeting of SFRR-India, January 8-11, Lonavala, India, 2007.

Deepanjan Banerjee, **Alok Kumar Hazra**, Tapan Seal, Tapas Sur, Jharna Ray, Anandadeb Mukherjee, Biswapati Mukherjee, Potential Antioxidants from Halophytes in Sunderban Mangrove Eco-complex., International Conference on Advances in Free Radicals Research, Natural Products, Antioxidants and Radioprotectors in Health and Ninth Annual Meeting of Society of Free Radical Research-India, January 11-13, Hyderabad, India, 2010.

Banerjee D, **Hazra AK**, Chakrabarti S, Ray J., Mukherjee A, , Mukherjee B., Antioxidant, Antidiabetic and Anti-inflammatory activity of *Ipomoea pes-caprae* from Sunderban Eco-complex, 2nd Biennial International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines, 20-24th November, 2010.

Chakrabarty S, Banerjee D, **Hazra AK**, Ray J, Antioxidant and antibacterial activity of *sonneratia apetala* from Sunderban Eco-complex., 2nd Biennial International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines, 20-24th November, 2010.

Sur TK, **Hazra AK**. Studies on antioxidant and anti-inflammatory activities of some Ayurvedic polyherbal guggulu formulations. International Convention on Botanicals in Integrated Health Care, Kolkata, December 26-28, 2010, pp. 70.

Bhattacharya S, Adhikari A, Sur TK, **Hazra AK**, Das AK, Bandopadhyay SK. Evaluation of pharmacological profiles of *Boswelliaserrata*. Indian Pharmacological Society, West Bengal, Kolkata December 17, 2016, 91.

Bhattacharya S, Adhikari A, Sur TK, **Hazra AK**, Das AK. Anti-oxidant and diuretic activity of *Berberis vulgaris* (Berberidaceae). 1st Regional Science Technology Congress. Department of Science & Technology, Kolkata November 13-14, 2016.

Chakraborty B, **Hazra AK**, Mondal S, Mitra A, Sur TK. Identification and quantification of piperine in different Ayurvedic formulations by HPTLC techniques. Society for Ethnopharmacology of India, Kolkata March 19, 2016, 14.

Sur TK, Adhikari A, **Hazra AK**. Areca nut chewing: A hazardous habit. Indian Pharmacological Society, West Bengal, Kolkata February 20, 2016, 89.

Sur TK, **Hazra AK**, Seal T, Bhattacharyya D, Hazra A. Pharmacological screening of marine flora habitat in Indian Sunderban. International Seminar on Promotion, Prevention and Pacification Ayurvedic Landscape, Kolkata, February 9-10, 2016, 109.

Hazra AK, Sur TK, Mitra A. Chemical signature of Ayurvedic classical drugs. International Seminar on Promotion, Prevention and Pacification Ayurvedic Landscape, Kolkata, February 9-10, 2016, 111.

Sur TK, Bhattacharyya D, Hazra A. K. Hepatoprotective and antioxidant potential of Indian Sunderban mangrove, *Bruguiera gymnorrhiza* L. 103rd Indian Science Congress Association, Medicinal Sciences, Mysore, January 3-7, 2016, 107.