

**Curriculum Vitae**  
**Of**  
**Professor Dr. Balaram Roy**

# CURRICULUM VITÆ

## Professor Dr. Balaram Roy

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## EDUCATION

### **Ph.D (Applied Biological Chemistry);** 1996-2000 (31<sup>st</sup> March)

Thesis entitled “**Studies on the Synthesis of some Biologically active Heterocyclic Compounds**” under the supervision of **Professor Takeshi Kitahara**, Department of Applied Biological Chemistry, **The University of Tokyo**, 1-1-1 yayoi, Bunkyo-ku, Tokyo 113-8657, JAPAN.  
Email: [t.kitahara@mbg.nifty.com](mailto:t.kitahara@mbg.nifty.com)

### **M.Sc (Organic Chemistry);** 1984-1886 (held in 1987)

Thesis entitled “**Studies on the synthesis of 3-acetamido-3-deoxy-5-O-acetyl-D-ribofuranose**” a sugar component of antibiotic puromycin under supervision of **Professor A.K.M Anisuzzaman** and **Professor K. M. Mizanur Rahman**, Department of Chemistry, **University of Chittagong**, Chittagong, Bangladesh and secured 1<sup>st</sup> class 2<sup>nd</sup> position in order of merit.

### **B.Sc. (Hon’s in Chemistry);** 1980-1983 (held in 1984)

From Department of Chemistry, **University of Chittagong**, Chittagong, Bangladesh and secured 2<sup>nd</sup> position in order of merit.

### **H.S.C. (Science Group),** 1980 from **Comilla Board.**

### **S.S.C. (Science Group),** 1978 from **Comilla Board.**

## EXPERIENCES

### 1987-1989 (31<sup>st</sup> July) (As a Researcher and Teaching Assistant)

Served as a Researcher and Teaching Assistant in the Department of Chemistry, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh.

### **1989 to till date (Teaching and Research):**

- i) Served as a **Lecturer** in the Department of Chemistry, Hajee Mohammad Danesh Agricultural college, Dinajpur-5200, Bangladesh from 1989 (August) to August 1994, conducted theory and practical classes of Organic Chemistry, Physical and Analytical Chemistry, Bio-Chemistry, of B.Sc. Ag. and also engaged in different research activity.

- ii) Served as a **Assistant Professor** in the same Institute from 1994 (August) to January 1996 for conducted theory and practical classes of Organic Chemistry, Physical and Analytical chemistry, and Bio-Chemistry and also engaged in different research activity.
- iii) Under deputation for pursuing Ph.D research in the lab of Organic Chemistry, Dept. of Applied Biological Chemistry, The University of Tokyo, 1-1-1 yayoi, Bunkyo-ku, Tokyo 113-8657, Japan, from January, 1996 to March 2000.
- iv) After getting Ph.D from April, 2000 I again joined as **Assistant Professor** in the Dept. of Agricultural Chemistry, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, Bangladesh and conducted theory and practical classes of Physical, Analytical & Organic Chemistry, Biochemistry, Agricultural Chemistry of B.Sc. Ag (Hons.) courses and also conducted different courses of MS students. Three MS students of my Department are doing research under direct supervision of me.
- v) Served as **Associate Professor** in the Department of Agricultural Chemistry & Biochemistry, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from May 24, 2004 to August 20, 2008.
- vi) Served as **Professor** in the Department of Agricultural Chemistry & Biochemistry, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from May August 20, 2008 to August 13, 2014.
- vii) Served as **Professor** in the Department of Chemistry, the same University from August 14, 2014 to 20.08.2017.
- viii) At present I am serving as Grade-I (Selection Grade) Professor in the Department of Chemistry, the same university from August 21, 2017 to till date.

#### **AWARDS:**

- i) Chittagong University, Chittagong, Bangladesh, Merit Scholarship (During M.Sc)
- ii) Monbusho (The Ministry of Education, Science, Culture and Sports, Japan) Scholarship (for Ph.D research).

#### **MEMBERSHIP:**

- i) **Academic Council**, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Dinajpur-5200, Bangladesh, Since 2007 to till date
- ii) **Planning, Development and Works Committee**, as Dean since January 2015 to till date
- iii) **Teachers Association**, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Bangladesh.
- iv) **Board of Studies**, Department of Chemistry, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Bangladesh.
- v) **Planning & Purchase Committee**, Department of Chemistry, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Bangladesh.
- vi) **Debating Society**, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Bangladesh.

- vii) **Teacher & Officer's Club**, Hajee Mohammad Danesh University of Science and Technology, Dinajpur-5200, Bangladesh.
- viii) Japan Society for Bioscience, Biotechnology, and Biochemistry, Japan.
- ix) Journal of Synthetic Organic Chemistry, Japan.
- x) Editorial Board, Journal of Science and Technology, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from 2000 to till date.

#### **PREVIOUS ADMINISTRATIVE JOB:**

- i) **Ex-Editor, Journal of Science & Technology**, ISSN 1994-0386, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from October 2006 to February 2012.
- ii) **Ex-Chairman, (in charge), Department of Plant Pathology**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from March 2007 to July 07, 2008.
- iii) **Ex-Chairman (in charge), Department of Agricultural Extension**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from July 08 to November 2008.
- iv) **Ex-Director, Student Advisor & Affairs Division**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from August 2007 to September 01, 2008.
- v) **Ex-Director, Institute of Research & Training (IRT)**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from September 02, 2008 to August 25, 2010.
- vi) **Ex-Chairman, Department of Agricultural Chemistry**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from February 2009 to February 2012.
- vii) **Ex-Registrar (in-Charge)**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from August 25, 2010 to 02.09.2015.
- viii) **Ex-Transport Co-Ordinator**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from March 2012 to December, 2014.
- ix) **Ex-Member Secretary, Academic Council**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from August 25, 2010 to 02.09.2014.
- x) **Ex-Secretary, Regent Board**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from August 25, 2010 to 02.09.2014.
- xi) **Ex-Member, Finance Committee**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh, Since August 2010 to September 2014.

- xii) **Ex-Co-Ordinator, Bangladesh Open University**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh centre, from 2006 to 2007
- xiii) **Ex-Expert Member, Recruitment Board**, Secondary Higher Secondary Education Board, Dinajpur.
- xiv) **Ex-Dean, Faculty of Post Graduate Studies**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, from 01.12.2014 to February 2016.
- xv) **Ex-Dean, Faculty of Science**, Hajee Mohammad Danesh Science & Technology university, Dinajpur-5200, Bangladesh, from 20.05.2015 to 19.05.2017.
- xvi) **Ex-Chairman, Department of Chemistry**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from 20.05.2015 to 19.05.2018.
- xvii) **Ex-Sub Project Manager (SPM)**, Improvement of technology based teaching learning environment at the Department of Chemistry to produce global competitive graduates through enhancing teaching aids and laboratory facilities, HEQEP, CP No.: 6081

#### **PRESENT POSITION:**

As Grade-1 Professor in the Department of Chemistry, Faculty of Science, HSTU, Dinajpur since August 2017.

#### **SUPERVISORSHIP:**

About 50 MS students and one Ph.D student have already received their degree under my supervision.

#### **SOCIAL LEADERSHIP:**

- i) **President, Progotishil Teacher's Forum**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from July 2019 to till date.
- ii) **Ex- Member Secretary, Progotishil Teacher's Forum**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from December 2007 to December 2009.
- iii) **Ex-General Secretary, Progotishil Teacher's Forum**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from December 2009 to July 2019.
- iv) **Vice President, Bangabandhu Education & Research Council**, Dinajpur District, Progotishil Teacher's Forum, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from 2011 to till date.
- v) **Senior Vice President, Bangabandhu Parishad**, Dinajpur District, Dinajpur 5200, Bangladesh from August 2014 to till date.
- vi) **Chief Adviser, Sejuti Cultural Organization**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from 2014 to till date.
- vii) **Ex-Chief Adviser, Debating Society**, Progotishil Teacher's Forum, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from 2005 to December 2107.

- viii) **Chairman, Organizing Committee, 36<sup>th</sup> Annual Conference of Bangladesh Chemical Society 2013**, Successfully arranged 36<sup>th</sup> Annual Conference 2013, Bangladesh Chemical Society at Department of Agricultural Chemistry, HSTU, Dinajpur as Chairman of the organizing committee.
- ix) **Ex-President, English Society**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh.
- x) **Ex- Member Secretary, Teacher's Association**, Hajee Mohammad Danesh Science & Technology University, Dinajpur-5200, Bangladesh from December 2009 to February, 2011.

#### **LIFE MEMBERSHIP:**

- i) Bangladesh Chemical Society, Dhaka, Bangladesh.
- ii) Bangladesh Academy for Advancement of Science, Dhaka, Bangladesh.
- iii) Dhaka Mahanagar Puja Committee, Dhaka, Bangladesh.

#### **EXAMINAR:**

Different recognized University of Bangladesh. I am also working as a Foreign Expert member of Ph.D thesis in home and abroad.

#### **TRAINING:**

Research, Planning and Evaluation training on December, 1990 for 15 days sponsored by Bangladesh Agricultural research Council and Bangladesh Agricultural Research Institute, Joydebpur, Gazipur, Bangladesh.

#### **REVIEWER:**

Journal of Applied Entomology and also in other Journal of Home and abroad.

#### **TECHNICAL SKILLS:**

Expertised in synthesis, isolation, purification and identification of organic compounds.

Developing new methodologies in organic synthesis.

Expertised in use and analysis of spectroscopic data like <sup>1</sup>H, <sup>13</sup>C, NMR, MS, IR and Chiral HPLC etc. Capable of carrying research as an independent and in a team.

Possession of good communication and management skills.

#### **RESEARCH EXPERIENCE:**

Proficient in diverse area of organic chemistry: Synthesis, purification and characterization of some new oxygen, sulphur and nitrogen containing heterocyclics and also some carbohydrate compounds.

Experience in carrying out research with air and moisture sensitive compounds in microgram level and also multigram level.

Experience in handling of nitrogen containing basic and also water soluble compounds. Highly conversant with column chromatography and vacuum distillation.

Experience in handling some sophisticated equipments such as UV/Visible spectrophotometer, NMR (100 MHz, 300 MHz, 500 and 600 MHz), IR, MASS, HPLC and GC etc.

#### **PUBLICATIONS:**

1. K. M. M. Rahman, M. E. Haque, A. Z. M. Shaifullah, F. Ahmad and **Balaram Roy** "Synthesis of a Derivative of 5,6-dideoxy-D-xylo-hex-5-ene and Related studies" Chittagong University Studies, part II: Science, 13 (1), 131-135, (1987).
2. K. M. M. Rahman, M. E. Haque and **Balaram Roy** "An alternative route for the synthesis of a Derivative of 3-Amino-3-deoxy-D-ribose" Journal of Bangladesh Chemical Society, 3 (2), 169-174, (1990).
3. M. S. Hoque, **B. Roy**, M. M. Nuruddin and M. Abdul Hamid "Isolation and Purification of Lectin from garden pea (*Pisum sativum* L.)" Bangladesh Journal of Biochemistry" 1, No 1, 41-46, (1995).
4. A. K. M. M. Zaman, M. S. Alam, B. K. Biswas, **B. Roy** and A. H. Beg "Effect of B and Mo application on Mungbean" Bangladesh J. Agril Research, 21(1), 118-124, (1996).
5. M. M. Rahman, M. M. Rahman, **B. Roy** and S. Ahmed "Allelopathic effect of weeds on germination and growth of rice and jute seeds" Progress. Agric. 7(1), 69-72, (1996).
6. M. M. Rahman, M. M. Rahman, **B. Roy**, R. I. Mahmood and M. M. Bahadur " Allelopathic effect of durba (*Cynodon dactylon* L.) on germination and growth of jute and mungbean" Bangladesh Journal of Life Sciences, accepted (in press).
7. M. S. Alam, G. Mondal, **B. Roy**, A. M. M. Shamsuzzaman and R. I. Mahmood " Survey on the Study of Crop-field Weeds as Medicinal Plants" Bangladesh J. Sci. ind. Res. 32(3), (1997).
8. M. S. Alam, G. Mondal, **B. Roy**, A. M. M. Shamsuzzaman and R. I. Mahmood " Survey on the Study of Crop-field Weeds as Medicinal Plants" Bangladesh J. Sci. ind. Res. 32(3), (1997).
9. M. S. Alam, **B. Roy**, G. Mandal and R. I. Mahmood " Economic importance of genus *Ficus*" Bangladesh Journal of Life Sciences, 11 (1&2), (1999).
10. I. H. Tarafder, **B. Roy**, N. M. Rahmatullah and S. M. M. Hossain " Effect of Phosphate Fertilizer on Root Growth and Water Extraction on Turmeric" Bangladesh J. Sci. Ind. Res. 33(1), (1998).

11. **Balaram Roy**, Hidmori Watanabe, and Takeshi Kitahara "Simple Synthesis of ( $\pm$ )-Epibatidine" *Heterocycles*, 55, No. 5, (2001).
12. **Balaram Roy** "A novel route for the synthesis of the Protected Glucoallosamidin Pseudo-disaccharide" *Bangladesh Journal of Chemical Society*, vol 16. No 2 (2003).
13. **Balaram Roy**, M.N.Uddin, M.J. Islam, R. I. Mahmood and B.C. Halder, A new path for Aromatization during elimination Reaction, *J. Sci..Technol*, 1, 49-53 (2003).
14. **B. Roy** and T. Kitahara, An alternative new route for the synthesis of protected allosamizouine, *Journal of Science and Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 2, 24-28 (2004).
15. M. Hara, B. C. Sarker, **B. Roy** and N. M. Rahmatullah, Root growth and water extraction by egg plants under different Soil moisture Characteristics and a water extraction model Verification, *Journal of Science & Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 2, 40-48 (2004).
16. **B. Roy** and T. Kitahara, A new route for the Synthesis of 2-Chloro-5-(2- nitroethyny 1) pyridine aromatic nitro acetylene as dienophile for Diel's Alder reaction, *Journal of Science & Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 2, 55-60 (2004).
17. **B. Roy** and T. Kitahara, Studies on some Diel's Alder Reaction for the Construction of Key Intermediate in the Synthesis of analgesic drug (+)- Epibatidine using different Silyloxy diene. *Journal of Science & Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 3, 7-13 (2005).
18. M. J. Islam, **B. Roy**, M. N. Uddin, M. A. Hakim and M. A. Hossain, Suitability assessment of groundwater for drinking and industrial Uses in some selected sites of Dhaka City, *Journal of Science & Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 3, 87-90 (2005).
19. **B. Roy** and T. Kitahara, Reactivity of boron tri bromide for deprotection of methoxy group and Synthesis of new Precursors for the Synthesis of epibatidine analog's, *Journal of Science & Technology*, Hajee Mohammad Danesh Science & Technology University, Dinajpur. Vol. 3, 109-112 (2005).
20. **B. Roy**, R. Amin, M. N. Uddin, A. Y. M. S. Islam, M. J. Islam and B. C. Halder, Leaf Extracts of Shiyal mutra (*Blumea lacera* Dc.) as Botanical Insecticides against Lesser Grain Borer and Rice Weevil, *Journal of Biological Sciences* 5(2), 201-204 (2005).
21. **B. Roy**, M. R. Alam, Bikash C. Sarker, M. S. Rahamn, M. J. Islam, M. A. Hakim, and R. I. Mohamood, Effect of Aqueous Extracts of Some weeds on Germination and growth of wheat and Jute Seeds with Emphasis on Chemical Investigation, *Journal of Biological Sciences* 6(2), 412-416 (2006).
22. B. C. Halder, M. S. Rahman, **B. Roy**, U. K. Majumdar and S. Mahmood, Effect of Magnesium on the growth, Yield and Quality of potato. *J. Bangladesh Soc. Agric Sci Technol*, 3 (3 & 4), 201-204 (2006).
23. **B. Roy**, M.A. Zafar, M.A. Hakim, Bikash C. Sarker and M.S. Rahman, InhibitoryActivity



and Chemical Investigation on Aqueous Extracts of on Some Weeds on Germination of Rice and Mustard Seeds, Journal of Science and Technology, Hajee Mohammad Danesh Science and Technology University, Dinajpur, Vol. 4, 44-50 (2006).

24. S.R. Roy, **B. Roy**, Bikash C. Sarker, P.K.Roy and M.Y.Miah, Inhibitory Activity and Chemical Investigation on Some Ornamental Plants, Journal of Science and Technology, Hajee Mohammad Danesh Science and Technology University, Dinajpur, Vol. 4, 100-104 (2007).
25. Tarun Pal, M.S. Zoha, **Balaram Roy**, Bikash C.Sarker, M. A. Hakim, A.A.A.A. Islam and A. Alam, Antimicrobial Studies of Metal Complexes of Fe(III), Co(II) and Ni(II) with Cyanex-272, Journal of Pure and Applied Microbiology, Vol. 1(2), 207-210 (2007).
26. Md. Mizanur Rahman, Syed Shayfur Rahman and **Balaram Roy**, Allelopathic Potentials of Aqueous Extract of Macaranga Postulata(Melgota) with Emphasis on Chemical Investigation, SIU Studies, Vol. 1 Issue 2,27-31 (2007).
27. M.T. Nasirullah, Bikash C. Sarker, **B. Roy**, M.M.Rashid, N.M. Rahmatullah and M.J. Islam, Heavy Metal contamination in Drinking Water in Coal Mining Area of Noth-West Region of Bangladesh, Bangladesh Journal of Environmental Science, vol. 14, No 13 (2007).
28. M. Hasanuzzaman, M. A. Hakim, **B. Roy**, M. J. Islam and B.C. Sarker, Quality Assessment of Groundwater at Chirirbandar in Dinajpur District, J. Agric.sci Technol, 8(1), 87-94 (2007).
29. **B. Roy**, K. Begum, Bikash C. Sarker, R. Fancy and M. Nazim Uddin, Ground Water Quality rating Industrial Usage in Sugar Industrial Areas of greater Dinajpur district, J.Sci. Technol. (Dinajpur) Vol 6, 103-108 (2008).
30. Sona R. Roy, **B. Roy**, Bikash C. Sarker, M. Nazim Uddin and M.S. Zoha, Growth Regulatory Activities of Aqueous Extracts of Five Ornamental Plants, J.Sci. Technol. (Dinajpur) Vol 6, 121-125(2008).
31. **B. Roy**, P.K.Roy, B C. Sarker, M.S. Zoha and B.S. Sultana, Department of Agricultural Chemistry and Biochemistry, Hajee mohammaad Denesh Science and Technology University, Dinajpur, SRDI, Dinajpur. Allelopathic effect of some weed extracts on germination and primary growth of radish and amaranth seeds, Bangladesh J. Environ.Sci. Vol.15,123,2008
32. Bikash C sarker. m.t. Nasirullah, M.M Alam, **B Roy**, N M Rahmatullah and MS Zoha, Ground water quality for irrigated Agriculture and crop production in Dinajpur district of Bangladesh.
33. Bikash C. sarker, **B. Roy**, M.T. Nashirullah, M.A. Islam, Sunil C. Sarker and N.M. Rahmatullah, Department of Agricultural Chemistry and Biochemistry, Hajee mohammaad Denesh Science and Technology University, Dinajpur, SRDI, Dinajpur.Department of Agricultural Statistics, Sher-e Bangla Agricultural university, Dhaka.Agrofor. enviro.3(2): 227.230, 2009.
34. M.T. Nasirullah, M.J. Islam, **B. Roy**, Bikash C. Sarker and Nahida Laiju, Assessing quality and suitability of groundwater in a coal-mining area, J. Sci. Technol-vol-7 (Dinajpur)

113-122, 2009.

35. Bikash C. Sarker, **B. Roy**, R Fancy, W. Rahaman and S. Jalal, Response of root growth and yield of rice(BRRIdhan 28) under different irrigation frequencies and plant growth regulator, J. Sci. Technol-vol-7 (Dinajpur) 113-122, 2009.143-148.
36. S. jalal, **B. Roy**, Bikash C. Sarker, M.N. Uddin and Sona R. Roy. Department of Agricultural Chemistry and Biochemistry, Hajee mohammad Denesh Science and Technology University, Dinajpur, SRDI, Dinajpur. Growth inhibitory effect of ten fruit leaves on selected weeds, Agrofor. Environ. 4(1): 101-104, 2010.
37. Bikash C. Sarker, Prognashil, **B. Roy**, M.S. Zoha and M.N. Uddin, Department of Agricultural Chemistry and Biochemistry, Hajee mohammad Denesh Science and Technology University, Biological activity of some fruit leaves and chemical investigation of Dillenia indica leaves, Agrofor. Environ. 4(2): 15-20, 2010.
38. Prodip K. Roy, **B. Roy**, Bikash C. Sarker, M.N. Uddin and Sona R. Roy, Department of Agricultural Chemistry and Biochemistry, Hajee mohammad Denesh Science and Technology University, Dinajpur, Bangladesh. Agrofor. Environ. 4(2): 57-62, 2010.
39. **B. Roy**, Bikash C. Sarker, M.R. Amin, Basudeb C. Roy and S. jalal, Bioefficacy of shiyalmutra leaf extract against rice weevil, J. Sci. Technol-vol-8 (Dinajpur) 1-5, 2010.
40. **B. Roy**, Bikash C. Sarker, M.N. Uddin, Bizen C. Roy and S. jalal, Comparative growth regulatory activities of fruit leaves extracts and allelochemicals of pulse crops, J. Sci. Technol-vol-8 (Dinajpur) 95-102, 2010.
41. B.C. Sarker, **B. Roy**, R Fancy, M.N. Uddin and N.R. Rahmatullah, Suitability assessment of groundwater for irrigation in the selected areas of northwest region of Bangladesh-Bangladesh J. Agric. and Environ. 6(2).73, December 2010.
42. R.A.N E. Ferdous, **B. Roy**, M.A.S. Miah, B.C. Sarker and M.S. Islam, Leaf area distribution pattern measurement, chlorophyll and protein content of stevia as influenced by different cultivation methods in Bangladesh. Int. J. Sustain. Agril. Tech.7(1): 10-17, January 2011.
43. **B. Roy**, B.C. Sarker, S. Mustary, B.S. Sultana and B. Basak. Yield potential of some eggplant varieties under plant growth regulator. J. Innov. dev. Strategy 5(1): 34-37(April 2011).
44. B.C. Sarker, **B. Roy**, B.S. Sultana, S.C. Sarker and S. Jalal, Growth and yield of summer Mungbean in Response to Residual Effect of Different Liming Conditions, Journal of Science & Technology 9 & 10: 23-28 (2012).
45. **B. Roy**, N. N. Nahar, B.C. Sarker, J.K. Roy and M.N. Uddin, Physico-Morphological Attributes of Some Mango Varieties of Dinajpur District in Bangladesh, Journal of Science & Technology 9&10: 33-41 (2012).
46. B.C. Sarker, **B. Roy**, N.N. Nahar, J.K. Roy and S.C. Sarker, Comparative Study of Physico-Chemical Properties of Some Selected Mango Varieties, Journal of Science & Technology 9 & 10: 49-53 (2012).

47. Prodip K. Roy, Sona R. Roy, **B. Roy**, M. Sarker and Bikash C. Sarker, Assessment of Arsenic Contamination and Technique for Arsenic Free Water of Arsenic Affected Area in Bangladesh, *Int. J. Sustain. Agril. Tech.* 8(8): 30-37, (2012).
48. S. Aktar, M.A. Sayed, M.R. Islam, **B. Roy** and M.A. Hossain, Growth Regulatory Activities of Different Extracts of *Tinospora Codifolia* on Some Vegetable Seeds with their Chemical Investigation, *J. Environ. Sci. & Natural Resources*, 5(1): 133-140, (2012).
49. **B. Roy**, B.C.Sarker, M.A.Ali, S.R.Das and M.A. S. Sayed, Seed Germination and Seedling Growth of Two Vegetables in Responses to Aqueous Extract of Four Herbal Plant Leaves, *KJ. Environ. sci & Natural Resources*, 5(1): 141-150, (2012).
50. **Balaram Roy**, Shah Jalal, Bikash Chandra Sarker, Md Ruhul amin, Yong Ho Jeon and Ik-Jo Chun, Evaluation of Insecticidal Activities of Common Cocklebur Fruit Extract against Pulse Beetle *Callosobruchus chinensis* (Coleoptera: Bruchidae), *Korean Journal of Applied Entomology*, 51(4):325-329 (2012).
51. Bikash C. Sarker, **B. Roy**, M. Atikul Islam, B.S. Sultana and S. Jalal, Root growth and yield attributes of Summar Mungbean in Response to Residual Effect of Liming, *J.Agrofor. Environ.* 6(2): 105-108, (2012).
52. **Balaram Roy**, Md Ruhul amin, Shah Jalal and Bikash Chandra Sarker, Bioefficacy of Blood Leaf Plant extracts Against Pulse Beetle, *Callosobruchus Chinensis* (Coleoptera:Bruchidae), *Bangladesh J. Entomol*, 22(1): 69-77(2012).
53. Bikash C. sarker, Meshkat Zahan, U.K. Majumder, M. Atikul Islam and **B. Roy**, Growth and Yield Potential of Some Local and High Yielding Boro Rice Cultivars, *J. Agrofor. Environ.* 7(1): 107-110 (2013).
54. Md. Rafiqul Islam, **Balaram Roy**, Shefali Aktar, M.Afzal Hossain, Shukla Rani Das, Bioassay of Different Extract of *Clerodendrum Infortunatum* on Some Vegetables Seeds with their Chemical Investigation, *Int. J. Biosci* 4(7): 50-58 (2014).
55. **Balaram Roy**, Bikash Chandra Sarker, Shefali Akter, Shukla Rani Das and M. Ali, Effects of Aqueous Extract of Some Herbal plant on Seed Germination and Seedling Growth of bean *ILablab Niger* and *Borboti (Vigna Unguiculata)*, *Int. J. Biosci* 5(1): 89-96 (2014).
56. M. Atikul Islam, M. R. Haque, Bikash C. Sarker and **B. Roy**, Comparative Study of Growth Regulatory Activities of Six Medicinal Plants Leaves Extracts on Two Summer Vegetable Seeds, *International Journal of Innovative Science, Engineering & Technology*, Vol. 2 Issue 8, July 2015.
57. M. Atikul Islam, Anwar Zahid, Md. Shazadur Rahman, Md. Mostafizur Rahman, MJ. Islam, Yeasmin Akter, Mashura Shammi, **Balaram Roy**, Investigation of groundwater quality and its suitability for drinking and agricultural use in the south central part of the coastal region in Bangladesh, *Journal of Exposure and Health*, January 2016, DOI 0.1007/s12403-016-0220-z, Springer.
58. **B. Roy**, Pankaj K Sarker and B. Rokeya, Antidiabetic Activities of different Extracts of *Clerodendrum Infortunatum* and *Tinospora Cordiafolia* on Type-2 Diabetic Model Rats, *Journal of Diabetic Society* (2020).(will be submitted).

59. **B. Roy**, Pankaj K Sarker and B. Rokeya, Phaeophytin one of the Chlorophyllic Compound from *Clerodendrum Infortunatum* as Antidiabetic Agent, *Journal of Phytochemistry* (2020). (will be submitted).
60. **B. Roy**, Pankaj K Sarker and B. Rokeya, Isolation of Antidiabetic and other Bioactive Compounds from *Clerodendrum Infortunatum* and *Tinospora Codifolia*, *Journal of Phytochemistry* (2020).(will be submitted).

#### **PARTICIPATION ON SEMINAR AND SYMPOSIUM:**

- i) Annual conference on “Bioscience, Biotech and Biochemistry” held at Tokyo, Japan during March 31<sup>st</sup> to April 03, 2000. “Studies on the Synthesis of (±)-Epibatidine” (Poster Presentation).
- ii) Tenth Asian Symposium on “Medicinal Plants, Spices and other natural Products” held at Dhaka, Bangladesh during November 18-23, 2000. “Total Synthesis of (±)-Epibatidine” (Oral Presentation).
- iii) Annual Conference on “Bangladesh Academy for Advancement of Science” held at Dhaka, Bangladesh, during July 1<sup>st</sup> week, 2001. “Studies on the Synthesis of Protected glucosaminid in a pseudodisaccharide” (Oral Presentation).
- iv) Bangladesh Chemical Congress 2004, held at Dhaka, Bangladesh, December 08- December 10, 2004, “Studies on the Synthesis of Diel’s-Alder reaction with different silyloxy Diene for construction of key intermediate in the synthesis of epibatidine”(poster presentation).
- v) Bangladesh Chemical Congress 2006, held at Dhaka, Bangladesh, March 09- March 11, 2007 “Inhibitory Activity and Chemical Investigation on Aqueous extracts of Some Crop fields weeds” (Oral presentation).
- vi) Bangladesh Chemical Congress 2008, held at Dhaka University, Dhaka, Bangladesh, January 30- February 01, 2009 “ Insecticidal activities and Chemical investigation” (Oral Presentation).
- vii) Bangladesh Chemical Congress 2008, held at Dhaka University, Dhaka, Bangladesh, January 30- February 01, 2009 “Biological activities and Chemical Investigation on some ornamental and fruit leaves” (Poster Presentation).
- viii) Bangladesh Chemical Congress 2010, held at Jahangirnagar University, Savar, Dhaka, Bangladesh, December 10 – December 12, 2010 “ Antidiabetic effect of different extracts of *Clerodindrum infortunatam* and *Tinospora cordifolia* on STZ induced type 2 diabetic Long-Evans rats with chemical studies” (oral presentation).
- ix) 27<sup>th</sup> International Symposium on Microscale Bioseparations and Analyses MSB 2012, held at **Geneva, Switzerland** , February 12-15, 2012 “Antidiabetic effect of different extracts of *Clerodindrum infortunatam* and *Tinospora cordifolia* on STZ induced type 2 diabetic Long-Evans rats with chemical studies” (poster presentation).
- x) Bangladesh Chemical Congress 2012 held at BCSIR Dhaka and Department of Chemistry, University of Dhaka, Bangladesh, December 2012 as invited speaker.

- xi) 37<sup>th</sup> Annual Conference, Bangladesh Chemical Society 2015, held at Department of Chemistry Comilla University, “Growth regulatory activities of leave extracts of some herval and ornamental plants on vegetables, crops and weeds with chemical study”. 11 April, 2015 as invited speaker.
- xii) 16<sup>th</sup> Asian Chemical Congress, 2016, Held at Dept. of Chemistry, BUET, Dhaka, Bangladesh, as a speaker and also Chair of technical session. 16-19<sup>th</sup> March, 2016.
- xiii) As invited speaker in the annual conference of Bangladesh Chemical Society on 7-8 November 2019, Department of Chemistry, Rajshahi University, Rajshahi, Bangladesh.
- xiv) As resource person in International Seminar on Interface of Chemical and Biological Science on 29-30 November, 2019, Department of Chemistry, Panchanan Barma University, Cooch Behar, West Bengal, India.

#### **PRESENT RESEARCH ACTIVITY:**

At the present time from April, 2000 I have been pursuing my research for “**Chemical Investigation on some Medicinal Plants/Crop-field weeds for isolation of bio-active compounds with their bioassay and Attempt for the synthesis of some natural analogs**” to justify the structure-activity relationship.

#### **RESEARCH ACTIVITY BY MS/POST-GRADUATE STUDENTS UNDER MY SUPERVISION:**

##### **DEGREE AWARDED BY MY SUPERVISION:**

- i) Allelopathy and Chemical Investigation on Jute-Wheat crop field weeds.
- ii) Biological Activites of Different Fruit Leaves with their Chemical Investigation.
- iii) Chemical Investigation on some Weeds of Vegetable Crops with their Germination and Growth Effects.
- iv) Biological Activity of Leaves of Some Ornamental Plants Extracts with Emphasis on Chemical Investigation.
- v) Assessment of Ground water Quality for Sugar Industrial Area of Greater Dinajpur District.
- vi) Physico-chemical characteristics of Some Mango Varieties Grown in Northern Region of Bangladesh.
- vii) Assessment of Ground water quality for crop production in Comilla Region.
- viii) Herbicidal effect and Chemical Investigation on the Aqueous extract some fruit leaves.
- ix) Insecticidal activities and Chemical Investigation of common cocklebur and bloodleaf.
- x) Effect of aquous extract of Shiyalmutra on rice weevil with their chemical investigation.
- xi) Biological Activity of leaves of some ornamental plants extracts with emphasis on chemical investigation.

- xii) Growth regulatory Activities and chemical investigations of some fruit leaves.
- xiii) Assessment of Ground water quality for sugar industrial areas of greater Dinajpur Districts.
- xiv) Growth regulatory activities of aqueous extract of some fruit leaves on pot soil with emphasis on chemical investigation.
- xv) Growth regulatory activities of some leaves of ornamental plants on okra in pot condition and chemical investigation.
- xvi) Biological activity of some herbal plants in the field of Agriculture with chemical investigation.
- xvii) Growth regulatory activities of some vegetable seeds with their chemical studies.
- xviii) Water quality Assessment for irrigated agriculture in Nilphamary District.
- xix) Growth yield and Nutrient content of stevia as influenced by different cultivation methods.

**DEGEE AWARDED BY MY CO-SUPERVISION:**

- i) Chemical Investigation on Some Weeds of Rice and Mustard Crops for Justification of Allelopathic Effect.
- ii) Growth Regulatory Activities of Some Fruit Leaves and Chemical Investigations on the Leaves of *Dillenia indica*.
- iii) An Appraisal of Ground Water Quality and Soil Properties of Dinajpur District.
- iv) Ionic Constituents and Heavy Metal Contamination of Natural Water in Coal Mining Area of North-West Region of Bangladesh.
- v) Soil and Ground Water Appraisal of Level Barind Tract and North-Eastern Barind Tract for Irrigated Agriculture.
- vi) Toxicity Assessment of Ground Water of Dinajpur for Irrigation Drinking and Industrial Uses.
- vii) Effect of growth regulator (NAA) on the root growth and yield of BRRI dhan-28 under different irrigation frequencies.
- viii) Root growth and yield of summer mungbean in response to residual effect of different liming conditions.
- ix) Root growth, hydraulic conductivity and yield of rice (BRRI dhan-28) under water stress and growth regulator.
- x) Effect of different liming conditions on root growth yield and protein content of summer mungbean.

- xi) Nutrient dynamics and chemical properties of acid soil under different liming conditions in mungbean field followed by transplanted aman.
- xii) Assessment of arsenic and mineral elements in natural water of Gopalganj District in Bangladesh.

#### **STRUCTURE DETERMINATION BY MY RESEARCH GROUP:**

- i)  $\beta$ -Amyrin Undecanoate and Lupeol undecanoate from Clammy ground Cherry. Steroid/Terpenoid from China box.
- ii) Mono or sesquiterpenoid and olefinic compound from Indian dillenia.
- iii) o-hydroxy- n-hexyl salicylate or o-hydroxy –n-hexyl benzoate and long chain ketone from common cocklebur.
- iv) Chlorophyllic compound Phaeophytin from Clerodindrum infortunatum (Bhat) which showed highest glucose absorption during pancreatic perfusion i.e antidiabetic activity. (bioassay report completely new achievement of the research). (This work has already done by one of my Ph.D fellow).

#### **CURRENT RESEARCH CARRIED UNDER MY SUPERVISION:**

Isolation of Anti-Cancer and other bio-active compounds from Ixora Coccinea.

#### **PROJECT IS GOING ON UNDER MY LEADERSHIP:**

- i) **Project-1** has already finished by the financial support from Institute of Research and Training (IRT), Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh.
- ii) **Project-2** has already finished by the financial support from University Grants Commission, Shere-Bangla Nagar, Dhaka, Bangladesh.
- iii) **Project-3** has already finished by the financial support from Ministry of Science, communication & information Technology, Government Republic of Bangladesh, Bangladesh Secretariat, Dhaka, Bangladesh, for my Ph.D student.
- iv) **Project-4** has already finished by the financial support from Ministry of Science, communication & information Technology, Government Republic of Bangladesh, Bangladesh Secretariat, Dhaka, Bangladesh, for my Ph.D student.
- v) **Project-5** has already finished by the financial support from Institute of Research and Training (IRT), Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh.
- vi) **Project-6** has already finished by the financial support from Ministry of Science Communication and Information Technology, Government Republic of Bangladesh, Bangladesh Secretariat, Dhaka-Bangladesh.
- vii) **Project-7** has already finished by the financial support from Institute of Research and

Training (IRT), Hajee Mohammad Danesh Science and Technology University, Dinajpur-Bangladesh.

- viii) **Project-8** is going on by the financial support form from Institute of Research and Training (IRT), Hajee Mohammad Danesh Science and Technology University, Dinajpur-Bangladesh.

#### PERSONAL:

**Father's Name** : Late Chitta Ranjan Roy  
**Mother's Name** : Malati Rani Roy  
**Date of Birth** : 01-01-1963  
**Marital Status** : Married  
**Name of Wife** : Bandana Roy (House Wife)  
**Number of Children** : Two (One daughter and One son)  
**Name of My Daughter** : Dr. Barnini Roy, MBBS, FCPS (Medicine) 2<sup>nd</sup> part study on.  
**Name of Son-in-Law** : Dr. Abeer Majumder, MBBS, FCPS (Medicine) 2<sup>nd</sup> part study on.  
**Name of My Son** : Barnik Roy Brata a student of A-Level at Mangroove International School, Dhanmondi, Dhaka(Under Edexcel, UK).  
  
**Nationality** : Bangladeshi

#### PERMANENT ADDRESS:

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**Upa-Zilla** : Homna  
**District** : Cumilla, Bangladesh

#### REFERENCES:

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- Professor Takeshi Kitahara**  
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