

Teacher Profile

Taradas Sarkar

Assistant Professor

Chemistry

Acharya Jagadish Chandra Bose College
Kolkata, India

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EDUCATION:

University of Burdwan, Chemistry, Bachelor of Science, 1994

University of Burdwan, Physical Chemistry, Master of Science, 1996

Jadavpur University, Biophysical Chemistry, Ph. D., 2004

PROFESSIONAL EXPERIENCE:

2008-present Assistant Professor, Chemistry Department, Acharya Jagadish Chandra Bose College, Kolkata.

2006-2008 Fogarty Visting Fellow, NCI-Frederick, National Institutes of Health, MD, USA

2003-2006 Lecturer, Chemistry Department, Acharya Jagadish Chandra Bose College, Kolkata.

1999-2003 Senior Research Fellow, Biochemistry Department, Bose Institute, Kolkata.

1997-1999 Junior Research Fellow, Biochemistry Department, Bose Institute, Kolkata.

RESEARCH INTERESTS:

Biophysical characterization of microtubular protein tubulin using spectroscopic tools like spectrophotometry, fluorescence, circular dichroism etc. Characterization of tubulin as chaperone protein in its ability to suppress thermally and chemically induced aggregation of other proteins and assist refolding, investigation of mechanism of action colchicine site agents including arylthioindoles and related compounds, sulfide analogs of combretastatin A-4, alkenyldiarylmethanes, trimethoxybenzoylaminoindoles, and thiophene analogs of chalcones etc. through a wide variety of methodologies like tissue culture with immunofluorescence and flowcytometric evaluation of cells, large scale purification of proteins, turbidimetry, column chromatography, drug binding assays, thin-layer chromatography to find the effects on cell growth, tubulin assembly and radiolabeled colchicine binding.

PROFESSIONAL AFFILIATIONS:

Life Member of Indian Chemical Society

West Bengal College and University Teachers' Association

All India Federation of University and College Teachers' Organization

PROFESSIONAL ACTIVITIES:

Head of the Department of Chemistry, Acharya Jagadish Chandra Bose College, Kolkata
(2 Years)

Examiners in different undergraduate Chemistry Honours and General Examinations (both theoretical and practical) of the University of Calcutta

IMPORTANT PUBLICATIONS:

- 2012** Sarkar T, Nguyen TL, Su ZW, Hao J, Bai R, Gussio R, Qiu SX, Hamel E *Interaction of pseudolaric acid B with the colchicine site of tubulin. Biochem Pharmacol. (2012), 84 (4), 444-450.*
- 2009 La Regina G, Sarkar T, Bai R, Edler MC, Saletti R, Coluccia A, Piscitelli F, Minelli L, Gatti V, Mazzoccoli C, Palermo V, Mazzoni C, Falcone C, Scovassi AI, Giansanti V, Campiglia P, Porta A, Maresca B, Hamel E, Brancale A, Novellino E, Silvestri R. *New Arylthioindoles and Related Bioisosteres at the Sulfur Bridging Group. 4. Synthesis, Tubulin Polymerization, Cell Growth Inhibition, and Molecular Modeling Studies. J Med Chem., 52 (23), 7512-7527.*
- 2008 Barbosa EG, Bega LA, Beatriz A, Sarkar T, Hamel E, do Amaral MS, de Lima DP. *A diaryl sulfide, sulfoxide, and sulfone bearing structural similarities to combretastatin A-*
- 2008 Anchoori RK, Kortenhorst MS, Hidalgo M, Sarkar T, Hallur G, Bai R, Diest PJ, Hamel E, Khan SR. *Novel Microtubule-Interacting Phenoxy Pyridine and Phenyl Sulfanyl Pyridine Analogues for Cancer Therapy. J Med Chem., 51(19), 5953-5957.*
- 2008 Cullen, M.D., Sarkar, T., Hamel, E., Hartman, T.L., Watson, K.M., Buckheit, R.W. Jr., Pannecouque, C., De Clercq, E., Cushman, M. *Inhibition of tubulin polymerization by select alkenyldiarylmethanes. Bioorg. Med. Chem. Lett., 18(2), 469-473.*
- 2008 Romagnoli, R., Baraldi, PG., Sarkar, T., Carrion, M.D., Cara, C.L., Cruz-Lopez, O., Preti, D., Tabrizi, M.A., Tolomeo, M., Grimaudo, S., Di Cristina, A., Zonta, N., Balzarini, J., Brancale, A., Hsieh, H.P., Hamel, E. *Synthesis and biological evaluation of 1-methyl-2-(3',4',5'-trimethoxybenzoyl)-3-aminoindoles as a new class of antimetabolic agents and tubulin inhibitors. J. Med. Chem., 51(5), 1464-1468.*
- 2008 Fang, Z., Song, Y., Sarkar, T., Hamel, E., Fogler, W.E., Agoston, G.E., Fanwick, P.E., Cushman, M. *Stereoselective synthesis of 3,3-diarylacrylonitriles as tubulin polymerization inhibitors. J. Org. Chem., 73(11), 4241-4244.*
- 2004** Sarkar, T., Mitra, G., Gupta, S., Manna, T., Poddar, A., Panda, D., Das, K. P., Bhattacharyya, B. *MAP2 prevents protein aggregation and facilitates reactivation of unfolded enzymes. Eur. J Biochem., 271(8), 1488-1496.*
- 2001 Manna, T., Sarkar, T., Poddar, A., Roychowdhury, M., Das, K. P., and Bhattacharyya, B. *Chaperone-like activity of tubulin. binding and reactivation of unfolded substrate enzymes. J. Biol. Chem., 276 (43), 39742-39747*
- 2001** Sarkar, T., Manna, T., Bhattacharyya, S., Mahapatra, P., Poddar, A., Pena, J., Solana, R., Tarazona, R., Roy, S., and Bhattacharyya, B. *Role of the carboxy-termini of tubulin on its chaperone-like activity. Proteins: Structure, Function, and Genetics, 44(3), 262-269.*

**SYMPOSIA, MEETINGS, WORKSHOPS: ATTENDED/PUBLISHED ABSTRACTS/
PAPERS PRESENTED/ POSTERS (since 2009):**

- 2009 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today organized by the Indian Chemical Society, Kolkata
- 2008 76th Orientation Programme of UGC-Academic Staff College of Calcutta University at Calcutta University, Kolkata
- 2009 UGC Sponsored National Seminar on 'Application of Spectroscopy in Understanding Molecular Structure: Its Relevance to the Undergraduate Curriculum in Chemistry' at Charuchandra College, Kolkata
- 2010 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today organized by the Indian Chemical Society, Kolkata
- 2011 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today and Celebration of International Year of Chemistry organized by the Indian Chemical Society, Kolkata
- 2012 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today organized by the Indian Chemical Society, Kolkata
- 2013 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today organized by the Indian Chemical Society, Kolkata
- 2014 Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today organized by the Indian Chemical Society, Kolkata