

Statement of research achievement:

As part of my International collaborative research work, I have applied for Indo-Swiss Joint Research Programme (ISJRP), supported by Government of India and Government of Switzerland.

I received Indo-Swiss Joint Research Programme (ISJRP) during the year 2012-14. Under this collaborative research programme, I collaborated with Prof. Bruno Therrien, Department of Chemistry, University of Neuchatel, Neuchatel, Switzerland. As part of the programme, we studied the interaction of various organometallic compounds (synthesized in Prof. Bruno's lab) with double helical as well as G-quadruplex DNA using various biophysical and biochemical assays. In the project study, we have successfully generated about 6 different organometallic compounds that are efficient in inducing apoptosis among various cancer cells, in micro molar concentration. We together published about 6 research papers in various international journals (details were listed here under)

Details of Papers published under Indo-Swiss Joint Research Programme (funded by DST):

1. Anticancer activity of large metalla-assemblies built from half-sandwich complexes. (2016) Gajendra Gupta, Gopi Suresh Oggu, Nagesh Narayana, Kiran Kumar Bokara and Bruno Therrien. CrystEngComm, 18, 4952-4957, DOI:10.1039/C6CE00139D. (IF-3.8).
2. Biological activities of pyrenyl-derived thiosemicarbazone half-sandwich complexes. (2015) Nandhagopal Raja, Neelakandan Devika, Gajendra Gupta, Vadithe Lakshma Nayak, Ahmed Kamal, Narayana Nagesh*, Bruno Therrien*. Journal of Organometallic Chemistry, 794, 104-114. doi:10.1016/j.jorganchem.2015.06.036. (IF-2.3).
3. Exploiting Natural Products to Build Metalla Assemblies :The Anticancer Activity of Embelin - Derived Rh(III) and Ir(III) Metalla -Rectangles (2014) Gajendra Gupta, Jerald Mahesh Kumar, Amine Garci, Narayana Nagesh* and Bruno Therrien*. Molecules, 19, 6041-6046. doi: 10.3390/molecules19056031. (IF-2.7).
4. Antiproliferative activities of trithiolato-bridged dinuclear arene osmium complexes. (2014) Gajendra Gupta, Narayana Nagesh , Benjamin S. Murray, Paul J. Dyson, Bruno Therrien. Inorganica Chimica Acta (ICA), 423, 31-35. <http://dx.doi.org/10.1016/j.ica.2014.07.050>. (IF-2.0).

5. Anticancer Activity of Half-Sandwich RhIII and IrIII Metalla-Prisms Containing Lipophilic Side Chains. (2014) Gajendra Gupta, Jerald Mahesh Kumar, Amine Garci, Nandini Rangaraj, Narayana Nagesh,* and Bruno Therrien*, *Chempluschem*, 79(4), 610-618, doi: 10.1002/cplu.201300425. (IF-3.0).

6. Biological Studies of Chalcogenolato-Bridged Dinuclear Half-Sandwich Complexes. (2013) Justin P Johnpeter, Gajendra Gupta, Jerald Mahesh Kumar, Gunda Srinivas, Narayana Nagesh*, Bruno Therrien*. *Inorg. Chem.*, 52 (23), 13663-13673. doi: 10.1021/ic4022307. (IF-4.6).