Statement of research achievements, if any, on which any award has already been received by the applicant. Please also upload brief citation(s) on the research work(s) for which the applicant has already received the award(s) (not to exceed 2000 words):

(a) Prof. Goswami has been awarded prestigious SERB-STAR award in 2021 by Science and Engineering Research Board, Government of India for successful execution of the project "Total Synthesis of Marine Macrocyclic Lactone Biselyngbyaside and Its Variants and Their Biological Activities." as well as for his remarkable research achievement on bioactive natural product synthesis. Prof. Goswami has successfully encountered the chemical synthesis of some of the members of biselyngbyaside family of marine natural products which are known to exhibit promising anticancer activities against broad range of human cancer. During the execution of this project, the successful inclusion of Heck macrocyclization has been showcased in the presence of other sensitive olefins. The use of this powerful strategy has been explored less in literature. This approach helps others for more use of Heck macrocyclization in total synthesis of natural products. Moreover, a new modification of the Jamison protocol of trans-hydroalumination/ allylation, a crucial step in the synthesis of skipped olefin, has been developed. The anticancer activity of some of the members have also been evaluated. Later, this study helped to generate pharmaceutically promising analogous molecules.

Ref: (i) Org. Lett., 2016, 18, 1908–1911. (ii) Org. Biomol. Chem., 2020,18, 7151-7164. (iii) Euro. J. Org. Chem., 2021, 2057-2076.

(b). Prof. Goswami has been selected for prestigious Bronze Medal for the year 2023 by Chemical Research Society of India (CRSI) for his outstanding contribution in chemical synthesis of bioactive natural products and their relevant analogues having medicinal value.

Rajib Kumar Goswami, Ph.D

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Date: 22.08.2023