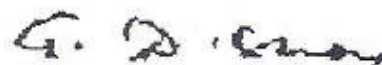


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Certificate

This is to certify that the thesis “**Antioxidant and immunomodulatory effects of lead acetate and sodium arsenite exposure on macrophage response in freshwater fish *Channa punctatus***” submitted by Nilantika Paul embodies the record of original investigation carried out by her under our supervision. She has been duly registered under Assam University, Silchar and the thesis presented is worthy of being considered for award of the degree of Doctor of Philosophy (Science). This work or part thereof has not been submitted for any degree or award in any other university or institution.



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