3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship during the year

RAMANANDA COLLEGE

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UGC Recognized & State Government Aided Constituent College
Under the Bankura University (dt.-01.01.2017)
(Re-Accredited by NAAC 3rd Cycle at B ++ Level)

Ref. No..... Date.....

From : Principal
Secretary, G.B.

Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship during the year

Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration	Duration	Nature of the activity
1	Effect of Gold and Silver Nanoparticles on Fish Endocrinology and Reproductive biology.	Zoology Dept, Vidyasagar University	Dr. Nilanjana Chatterjee	2017	Ongoing	Research work

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3/6/2021
Principal
Ramananda College
Bishnupur, Bankura

Effect of Gold and Silver Nanoparticles on Fish Endocrinology and Reproductive biology

Dr. Nilanjana Chatterjee

Collaborative project Report of Dr. Nilanjana Chatterjee

Name of the Institute: Ramananda College, Bishnupur, Bankura (Mother Institute) and Viddyasagar University, West Midnapur, WB

Name of the faculty: Dr. Nilanjana Chatterjee (Ramananda College, Bishnupur, Bankura), Assistant Professor of Zoology

Name of the Collaborator: Dr. Priyanka Halder Mallick, Assosiate Professor of Zoology, VU with registered research scholar Mr. Subir Mal.

Period of collaboration: 19/08/2017 till date

Area of research: Effect of Gold and Silver Nanoparticles on Fish Endocrinology and Reproductive Biology.

Progress of work: The gold and silver nanoparticles have been extracted using bile of *Labeo rohita* as the reducing agent in order to ensure a cleaner synthesis of the nanoparticles. The matured fish exposed to different quantities of nanoparticles over various time periods have shown several remarkable changes in the histological as well as histochemical structures of several vital organs such as the liver, kidney, testes and ovary.

Different responses to the nanoparticles have shown remarkable alteration in the seasonal reproductive cycle of the fish. The effect of silver nanoparticles on the seasonal reproductive cycle have been studied elaborately and the observation of the effects of gold nanoparticles on the metabolic organ (liver), excretory organ (Kidney) and reproductive organs (testes and ovary) are being studied. The elaborate work with gold nanoparticles is being conducted now a days.

Achievements: So far, few parts of our work have been presented in the form of paper in three reputed International Seminars conducted in different parts of the state i.e., SKBU, Purulia (West Bengal Science Congress), Midnapur City College and Science City, Kolkata (2nd World Clean Summit, 2018). One of our papers presented by Mr. Subir Mal has also received the "Best Paper Award" from Midnapur College.

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Nilanjana Chatterjee