



SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited with "A" grade by NAAC
Jepplaar Nagar, Rajiv Gandhi Salai, Chennai-600119.
Tamil Nadu, India



Dr. M. Radhakrishnan, M.Sc., M.Phil., Ph.D.,
Scientist E & Centre In-charge

12-02-2019

To
Dr. Syed G. Dastager
Senior Scientist
National Collection of Industrial Microorganisms (NCIM)
CSIR-National Chemical Laboratory
Pune – 411 008. Maharashtra, India

Respected Sir,

Sub : Requesting help for purification and characterization bioactive compounds from
Actinobacteria – Reg.
Ref: Your email dated 8th Jan 2019

Greetings from Sathyabama Institute of Science and Technology!

With reference to the above, I wish to share with you that we are doing each two DST – SERB and DBT funded the project on marine actinobacteria in the bioprospecting division of our centre. In all the projects we have identified some potential actinobacterial strains showing antimicrobial, anti TB, anti HIV and QSI activities. But, as microbiologists, we are struggling to isolate the natural compounds from actinobacteria. Sir, we are in the stage of submitting the completed report in 3-6 months in all the projects. Sir as we had discussed in the mail as well as in person at Periyar University, you have dedicated state of art facility for the isolation and characterization of bioactive compounds and there will be a possibility to purify and characterize the compounds using your analytical facility. I kindly request you to help us in this regard. Based on our previous interaction, I got permission to send one of our JRF Mr. K. Manigundan to your Institute for the period of one month from 17th February 2019 to 16th March 2019. Sir we will acknowledge your institute for all their support and we will be sharing the authorship with you and others who will help us from your Institute.

A short summary of the proposed work to be carried out at your Institute is enclosed herewith for your kind perusal. We are also indebted for your immense support given for molecular analysis of our actinobacterial strains

Hence I kindly request you to do the needful based on this letter as per your institute norms to facilitate his visit and we are thankful for your support to accommodate our request and helping us in this regard.
Thanks and regards with respects

Yours sincerely

M Radhakrishnan
Dr. M. Radhakrishnan 12/2/2019

Centre for Drug Discovery and Development

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jepplaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

Enclosed: 1. Summary of work to be carried out at NCIM-NCL, Pune

Summary of work to be carried out at NCIM-NCL, Pune

Goal of the study: To isolate and characterize bioactive metabolites (antimicrobial, anti TB and anti HIV metabolites from marine actinobacteria

- I. **Project name:** Diversity (cultivable and culture independent), *ex situ* conservation and bioprospecting of marine actinobacteria for antibiotics, anti-tuberculosis, anti-HIV and immunomodulatory substances (DBT) - PI: Dr. M. Radhakrishnan.

Work component:

1. Isolation and characterization of antimicrobial and anti-HIV metabolites from actinobacterial strain MAB56 isolated from Andaman and Nicobar Islands.
2. Isolation and characterization of Anti TB metabolites from actinobacterial strain MAB12 isolated from Andaman and Nicobar Islands.

- II. **Project name:** Exploring the antibiotic potential of siderophores (sideromycins) from marine-derived actinobacteria effective against multi drug resistant Gram negative bacterial pathogens (DST-SERB) - PI: Dr. M. Radhakrishnan

Work component:

1. Isolation, characterization and structure elucidation of siderophore produced from marine actinobacteria APS29 against Gram negative pathogens

- III. **Project name:** characterization, structure elucidation and druggability studies of three potential anti tb metabolites from novel *Streptomyces* sp ANS2 isolated from Andaman and Nicobar marine sediments (DBT) - PI : Dr. Dr. Jerrine Joseph

Co PI : Dr. M. Radhakrishnan

Work component:

1. Isolation and characterization of anti-tubercular, anticancer, antioxidant and larvicidal bioactive compounds from marine Actinobacteria ANS2 isolated from Andaman and Nicobar Islands.

- IV. **Project name:** Bioprospecting of fish-associated actinobacteria for Quorum sensing inhibitors effective against microbial biofilms (DST-SERB) - PI : Dr. V. Gopikrishnan;

Co PI : Dr. M. Radhakrishnan

Work component:

1. Isolation and characterization of Quorum sensing inhibitors (QSI) producing Actinobacterial strain IM20 isolated from fish gut.

Other works:

1. 16s rRNA analysis of potential actinobacterial strains
2. PCR based determination of secondary metabolite biosynthetic genes