

Registered



कुमाऊँ विश्वविद्यालय, नैनीताल-263001(उत्तराखण्ड)
KUMAUN UNIVERSITY, NAINITAL-263001(UTTARAKHAND)
Sponsored Research and Industrial Consultancy Cell(SRICC)
Office: 05942-235213, Fax: 05942 -235213, E-mail: sriccku@gmail.com

No. SRICC/MOU/2019/247

Dated: 06 May, 2019

To,

Director
Defence Institute of Bio Energy Research
(DIBER), DRDO
Haldwani - 263139

Subject: Regarding MOU between Defence Institute of Bio Energy Research (DIBER), DRDO, Haldwani and Kumaun University, Nainital.

Sir,

Please find enclosed herewith the duly signed copy of original MOU between the Kumaun University and Defence Institute of Bio Energy Research (DIBER), DRDO, Haldwani for researchers of both the institutions.

Thanking you.

Enclosure - MOU Original.

Yours faithfully

Rajeev
06/05/2019
Prof. (Rajeev Upadhyay)
Director
SRICC

Copy to - PS to Vice Chancellor for kind information to Hon'ble Vice Chancellor.

Rajeev
06/05/2019
Director
SRICC

o/c



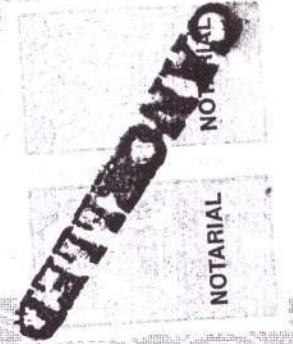
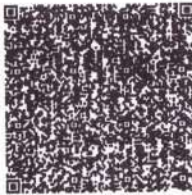
सत्यमेव जयते

INDIA NON JUDICIAL
Government of Uttarakhand

e-Stamp

RAJESH CHANDRA
L.I.C. No.- 106/192
Stamp Vendor, HALDWANI

Certificate No. : IN-UK06034290206930R
Certificate Issued Date : 26-Feb-2019 03:03 PM
Account Reference : NONACC (SV)/ uk1300604/ HALDWANI/ UK-NT
Unique Doc. Reference : SUBIN-UKUK130060413825577040244R
Purchased by : DIBER HALDWANI
Description of Document : Article 5 Agreement or Memorandum of an agreement
Property Description : NA
Consideration Price (Rs.) : 0
(Zero)
First Party : DIBER HALDWANI
Second Party : KUMAUN UNIVERSITY NAINITAL
Stamp Duty Paid By : DIBER HALDWANI
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



-----Please write or type below this line-----

**MEMORANDUM OF COLLABORATION (MoC) BETWEEN
KUMAUN UNIVERSITY, NAINITAL
AND
DEFENCE INSTITUTE OF BIO ENERGY RESEARCH (DIBER), DRDO,
HALDWANI**

CL.1 THE MoC

CL.1.1 THIS MoC made and entered into on 23/04/2019 day of -----
between DEFENCE INSTITUTE OF BIO ENERGY RESEARCH (DIBER), a laboratory
under Defence Research and Development Organisation (DRDO), Ministry of Defence
having its Headquarter at Goraparao, Haldwani-263139 (hereinafter called DIBER, DRDO
which expression shall where the context so admits include its successors and permitted
assigns) of the one part,

And

CL.1.2 KUMAUN UNIVERSITY, NAINITAL, established in 1973 under the UP State Act,
having it's office at Kumaun University, Nainital, Uttarakhand – 263001 (hereinafter called
the KUN which expression shall where the context so admits include its successors and
permitted assigns) of the other part.

PREAMBLE:

The Department of Science and Technology Govt. of India and the University Grants
Commission have realized the need for a close linkage between the National Laboratories and
the Universities in terms of research and academic activities. In compliance to this idea, KUN
and DIBER, DRDO have decided to sign a Memorandum of Collaboration (MoC) as per the
following terms and conditions:

1. GENERAL

1.1 The objective of collaboration will be to promote interaction among research scholars
and Scientists/Faculties of DIBER (Haldwani, field station Pithoragarh, Auli and project site
Secunderabad), DRDO and KUN. All official correspondence to be carried out with
Director DIBER, Haldwani.

1.2 Scientist of DIBER, DRDO and the faculty members of KUN (Department of
Botany, Forestry, Chemistry, Bio-technology, Zoology and Pharmacy) will work towards
joint research projects thereby mutually using research facilities developed/to be developed
at DIBER, DRDO and KUN as per necessary administrative approvals on case to case

1.3 KUN will recognize and accept the students of DIBER, DRDO for supervising
research leading to Ph.D. degree of KUN.

1.4 The Faculty and students of the Departments (Botany, Forestry, Chemistry, Bio-
technology, Zoology and Pharmacy) of KUN shall be allowed the use of library of DIBER,
DRDO subject to prior permission of the Director, DIBER, DRDO. Scientists and Ph.D.
students of DIBER, DRDO shall likewise be given the above mentioned facilities at KUN.

1.5 The Scientists/Faculty members and students of above mentioned departments of DIBER/KUN shall be issued necessary permission, on request, to access to laboratories and other facilities of KUN/DIBER as per their respective rules.

1.6 Whenever required, DIBER, DRDO shall arrange hostel/guest house accommodation for KUN faculty members and students visiting DIBER for research/collaboration work and vice-versa on payment basis by the occupant.

2. ACADEMIC AND DEVELOPMENTAL PROGRAMMES:

2.1 For the mutual benefit of the two institutions i.e. DIBER, DRDO and KUN, there will be exchange of scientists of DIBER, DRDO and faculty members of departments of KUN and DIBER, DRDO as per their respective rules.

2.2 DIBER, DRDO and KUN scientists/faculty members will help each other in preparing common research programmes.

2.3 The Faculty and students of the Department of KUN shall be allowed the use of library of DIBER, DRDO subject to prior permission of the Director, DIBER, DRDO. Scientists and Research Scholars of DIBER, DRDO shall likewise be given the above mentioned facilities at KUN.

2.4 For Ph.D. students working under joint supervision with Faculty of KUN and scientists of DIBER, DRDO the Research Ordinance related to Ph.D. degree of KUN will be applicable (KUN Research Ordinance-2016 could be downloaded from www.kunainitai.ac.in Link SRICC). Ph.D. students working in MoU/MoC signed R&D institutions of Govt. of India shall have to attend Pre-Ph.D. course work classes of Paper-I (Research Methodology) in KUN. After completion of course work classes on Research Methodology (Paper-I) in KUN, such PhD students may carry-on Paper-II (Recent Advances in the Subject) and Paper-III (Dissertation) in their respective research institutes.

2.5 In case of very specialized research subjects the Pre-Ph.D. course work will be held in ~~respective~~ research institutions, only, after consultation with Convener (RDC)/HOD and final approval of Hon'ble Vice-Chancellor.

2.6 The faculty of DIBER, DRDO with specialization in respective areas may be connected to the Departments of KUN as per due procedures of DIBER, DRDO. Such faculty may be requested to deliver lectures in Pre-PhD course work, organized by KUN.

2.7 All Ph.D. students will have to clear the Pre-PhD course work examination conducted by the KUN.

2.8 DIBER, DRDO and KUN will work closely to generate appropriately trained manpower in the related areas through organization of formal academic curricula, symposia, short term training courses, etc.

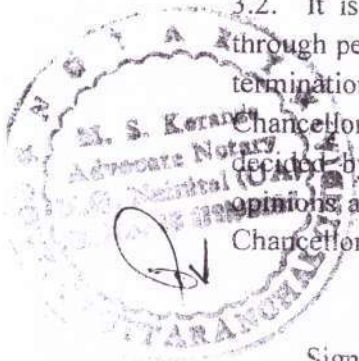
2.9. DIBER, DRDO will not claim any part of the IPR resulting from this collaboration if the invention originates from the work done solely at KUN. However, out of collaborative research, if the invention originates from DIBER, DRDO; DIBER, DRDO will have full right on IPR.

3.0 In case of joint efforts resulting in patents, KUN and DIBER, DRDO researchers involved will share the IPR proportionately. Similarly in joint publications resulting from the collaboration, researchers of KUN and DIBER, DRDO will be given credit of authorship proportional to their contribution in the joint research effort.

3.1. Under this MoC, the PhD degree will be pursued under the JOINT SUPERVISION of the faculty of the respective department of KUN and the scientist of DIBER, DRDO.

3.2. It is further agreed that the Vice-Chancellor, KUN and Director, DIBER, DRDO through periodic meeting will monitor the progress of this MoC. Any change/ modification/ termination as introduced/suggested by the Review Committee (Comprising of Vice-Chancellor, KUN, Director, DIBER, DRDO and other members as may be mutually decided by them) shall be acceptable to both the institutions. In case of difference of opinions and dispute regarding PhD programme, if any, the verdict of the Hon'ble Vice-Chancellor, Kumaun University, Nainital shall be final.

Signed this day of 23/04/2019, 2019 at Kumaun University, Nainital.



Handwritten signature
Chemistry
K.V-MTL

Handwritten signature
Director
DIBER, DRDO
मधु बाला/DR MADHU BALA
Soraparad, Haldwani
निदेशक/ DIRECTOR
डिबेर/ DIBER, HALDWANI

Handwritten signature
Registrar
Kumaun University
Nainital
Registrar,
Kumaun University, Nainital

Handwritten signature
Director-SRICC
Kumaun University
Nainital

The MoC will come into force from the date of approval of the draft both by the Executive Council of KUN and technical committee of the DIBER, DRDO Haldwani.

Handwritten signature
Head
Department of Biotechnology
Kumaun University Campus
Bhimtal-263156 (India)

Handwritten signature
Prof. and Head
Deptt. of Botany,
D.S.B. Campus
Nainital

Handwritten signature
Kumaun University

Handwritten signature
Manohar Koranga
Advocate
Notary Officer
Haldwani, Nainital (H.Q.)

Handwritten signature
Professor & Head
Department of Zoology
D.S.B. Campus
Kumaun University, Nainital - 260001

Handwritten signature
Professor & Head
Department of Forestry and

Handwritten signature
HEAD

**EXPLORING THE ANTIMICROBIAL POTENTIAL OF RHIZOPHERIC
BACTERIA ISOLATES AGAINST *ESCHERICHIA COLI*: ISOLATION
AND SCREENING FOR BIOCONTROL AGENT.**

DISSERTATION THESIS

Submitted in partial fulfilment of the requirement for the award degree of

MASTER OF SCIENCE

[BIOTECHNOLOGY]

by

KAVITA BHATT

Department of Biotechnology,
Sir J.C. Bose Technical Campus, Bhimtal
Kumaun University Nainital, Uttarakhand

Under the supervision of

Dr. Rishendra Kumar
Assistant Professor
Department of Biotechnology
Bhimtal, Nainital

Dr. Ankur Agarwal
Defence Institute of Bio
Energy Haldwani, Nainital

DISSERTATION REPORT
ON
COMPARATIVE GROWTH STUDY OF *OPHIOCORDYCEPS SINENSIS* ON
DIFFERENT KINDS OF FOOD GRAINS AND THEIR PHYTOCHEMICAL
ANALYSIS



BY

Neelam

In partial fulfillment of the requirement for the degree of

Master of Science

(Biotechnology)

Department of Biotechnology, Kumaun University,

Nainital, Uttarakhand

(January 2023 to June 2023)

UNDER THE SUPERVISION OF

Dr. RANJIT SINGH

Scientist 'E'

Defence Institute of Bio-Energy

and Research(DIBER)

Defence R&D Organisation(DRDO)

Gorapadav, Haldwani

Dr. Rishendra Kumar

Assistant Professor

Sir J.C. Bose Technical Campus

Bhimtal

Department of Biotechnology

Kumaun University, Nainital

Page

CLOWING OF *Ralstonia solanacearum* SPECIFIC GENE INTO *E.coli*-DH5 α CELLS

DISSERTATION THESIS

Submitted in partial fulfillment of the
requirements for the award of the degree of

MASTER OF SCIENCE
(BIOTECHNOLOGY)

by

Shilpi Singh

DEPARTMENT OF BIOTECHNOLOGY
SR J.C. Bose TECHNICAL CAMPUS, BHIMTAL
KUMAON UNIVERSITY, NAINITAL, UTTARAKHAND

Work carried out at

DEFENCE INSTITUTE OF BIO-ENERGY RESEARCH,
HALDWANI, 263 135, UTTARAKHAND

Under the supervision of

Dr. Sarvesh K. Upadhyay
Assistant Professor
Department of Biotechnology
Sr J.C. Bose Technical Campus,
Bhimtal, Kumaon University, Nainital

Mr. S. Mervyn P. Raj
Scientist D,
Defence Institute of Bio-Energy
Research, DIBER/DRDO
Haldwani, Nainital 263 14

A Dissertation Report
ON
Phyto-Chemical Analysis of *Origanum vulgare* (oregano) Leaves in
Determination of Bioactive Compounds

Thesis

Submitted in Partial Fulfillment for the Award of the Degree of
Master of Science

In

Biotechnology

Submitted by

Shivani Joshi

Department of Biotechnology, Sir J.C. Bose Technical Campus
Bhimtal , Kumaun University Nainital, 263136 Uttarakhand

Under the Supervision of

Dr. Veena Pande
Professor
Department of Biotechnology,
Sir J. C. Bose Technical Campus
Bhimtal, Kumaun University
Nainital, 263136 Uttarakhand

Dr. M. Anfal Arshi
Scientist-E
Defence Institute of Bio-Energy
and Research (DIBER)
Defence R&D Organisation (DRDO)
Goraparav, Haldwani

Work carried Out at

DEFENCE INSTITUTE OF BIO-ENERGY RESEARCH (DIBER), HALDWANI,
UTTARAKHAND