

## CRITERIA 3 - RESEARCH, INNOVATIONS AND EXTENSION


### Key Indicator-3.2. Innovation Ecosystem

*3.2.1 The institution has created an ecosystem for innovations and has initiatives for the creation and transfer of knowledge (patents filed, published, incubation center facilities in the HEI to be considered)*

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**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

## RESEARCH POLICY



**PADMASHREE INSTITUTE OF MANAGEMENT AND SCIENCES**

**No 149, Padmashree Campus, Kommaghatta,**

**Kengeri, Bangalore – 560 060**

## RESEARCH POLICY

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*Anuradha M*

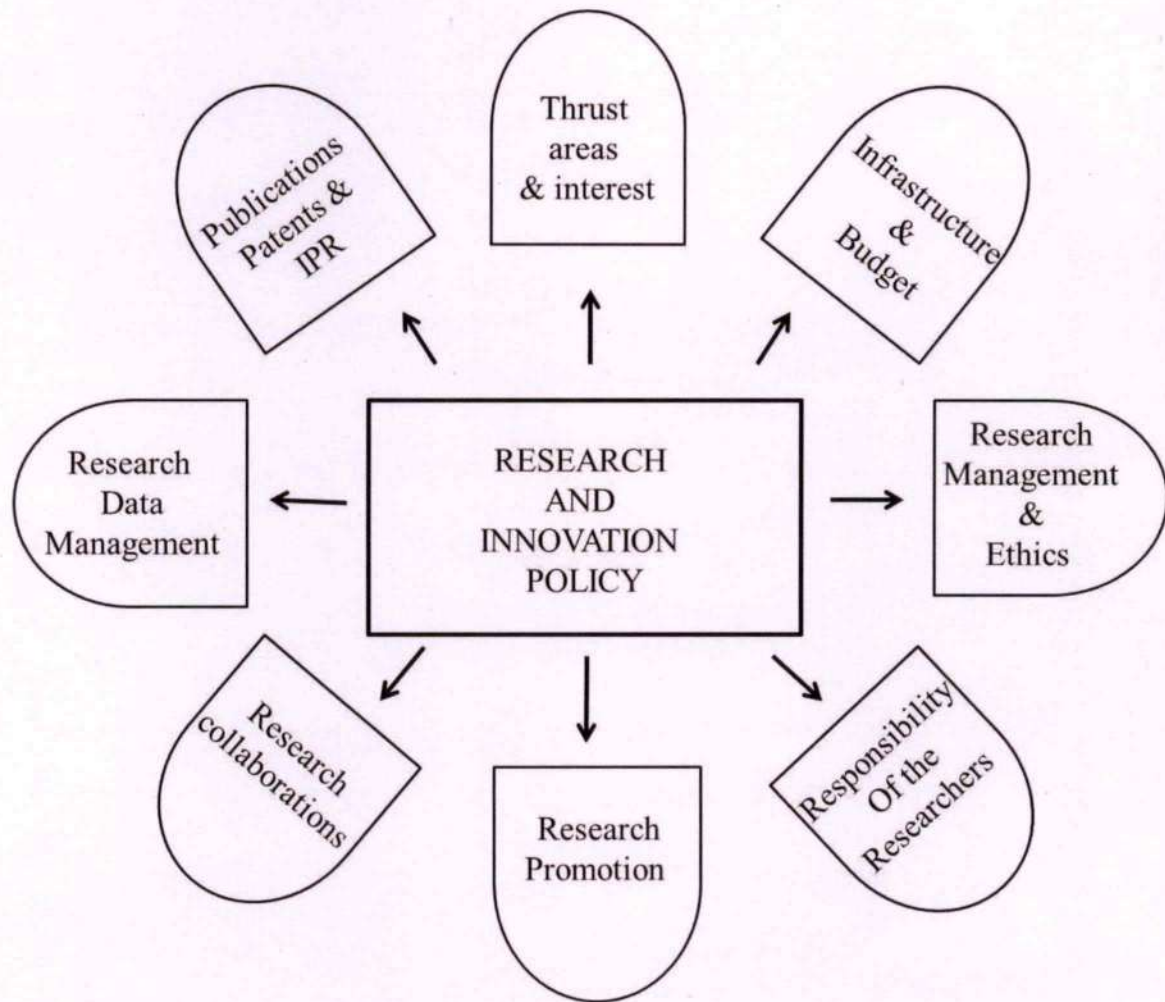
**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

## **Preamble**

Padmashree Research Centre affiliated to Bangalore University is having an excellent ecosystem for research activities. Institution is committed to provide support to quality research and has a mission to address scientific challenges of the society and environment. The research team and advisory committee is continuously striding towards excellence in research. Research collaborations with reputed academic institutions and industries are vibrant and intellectually stimulating. The goal of Padmashree is to achieve research excellence and disseminate the innovations to the entire world. The quest for innovation and research is proven with a track record of securing projects and grants from state, national and private agencies. Research advisory is a good amalgamation of academic, industry experts and made continuous efforts in inculcating scientific temper and igniting creative spirit. We encourage student research projects and train them to secure small research grants for pursuing the research. This policy aims to nurture research culture and cater to the good of the society by innovation and technology transfer. Ethics is the central dogma of the Padmashree research center and policy reiterates the research principles and ethics. Faculty and students are encouraged to undertake research, leading to quality publications, presentations in national conferences of repute, generation of intellectual property for communalization that is of useful for the society.

A clear demarcation of funds and resources will surely strengthen our research, and this will attract distinguished faculty to develop a culture of research and stride to achieve national and international recognitions and publications. Establishing chairs and fellowships can help nurture research at Padmashree Institute of Management and Sciences. Research policy is aimed at design and deployment of policies on innovation, patenting, academic integrity, and commercialization of technology through consultancy.

**Overview of Research and Innovation policy**



### **Purpose of the Research Policy**

The policy provides guidelines and define roles and responsibilities of all the stake holders. Policy shall serve as a general outline for the conduct of all types of research activities of the Institution. The policy document enables the research and innovation culture, provide strategies, and enables effective implementation.

The purpose of the research policy is to create a vibrant atmosphere of research among faculty, students, and researchers. The policy aims to facilitate the efficient implementation of excellence in research, innovation, collaboration and raise awareness pertaining to best practices in research and innovation.

### **Scope of the Research Policy**

The policy will be applicable to all the departments of the institute and applicable to all the faculty and students either funded or otherwise. This is applicable to all the members pursuing research within/outside institution premises. The research policy pertains to wide strategic interests of the institution including partnerships, collaborations, publications, consultancies, and MoU.

### **Objectives**

1. To foster research culture and extend support to research and innovation within the research framework and guidelines.
2. To design strategic research policy and inculcate good governance to achieve center for excellence.
3. To ensure quality and ethics in the research publications.
4. To provide systems for coordination among the research team and with collaborating institutes or individuals.
5. Providing modality for proper coordination of all research activities aligning to the vision and mission of the institution.
6. Ensure publications in quality journals, indexed in Scopus/web of science with impact factor.
7. Integrate research activities undertaken by the students with the research focus of the institution in alignment with the societal impact
8. Promoting technology transfer and translational research, into deliverable products and process for commercialization.

## **Custodian of the policy**

The implementation and updating of research policy shall be carried out by director/head of research, Padmashree research center. The research policy shall have a research advisory body to function under board of management and director. Director along with research coordinator will ensure smooth implementation of research policy. Research cell is responsible for organizing meetings, reviews, execution, and monitoring of the activities and disseminating the vision and objectives of the institution research policy. Annual management board meeting shall resolve issues, deliberates policy implementation, budgetary requirement, resource mobilization and action plan.

## **Organogram**

### **Research Management Board**

- Chairman
- Director
- Principal/R&D Director

### **Research Advisory Committee (RAC)**

- Principal – Director R&D
- Director – PGI
- Research cell Coordinator
- Senior faculty members
- Bangalore university nominee
- Experts from Industry
- Experts from Academia

### **Research Coordination Committee (RCC)**

- Principal – Director
- R&D Research cell Coordinator
- Heads of various departments
- Members – Senior faculty

Research Advisory Committee constituted by the management board meets half yearly and reviews the progress of the research and innovation cell. RAC plays an advisory role and guides towards growth and development.

The RCC will meet on quarterly basis, to review progress of the research work, identifies the research problems, discusses about the various funding opportunities, reviews the proposals, prepare budget, defines SOPs for lab maintenance and monitors all the research activities of the institute.

### **Strategic plan and research promotion policy**

The institution has a well-defined research promotion policy and has established research coordination committee, research development fund and strengthened its research infrastructure. Research policy is clearly defined strategic plan and is as given below.

### **Research priorities and thirist area**

The Padmashree research center in consultation with external experts and members of RAC and RCC have identified Life Sciences, Allied Health Sciences, Food, Nutrition, Nutraceuticals, Societal Research and Environmental Sciences as priority areas of research based on the strengths and expertise.

### **Infrastructure**

The Institution has a well-defined action plan and development fund, which enabled to strengthen its research infrastructure including central instrumentation facility, specialized research labs, library, and research /statistical data base. The major goals with respect to infrastructure are as follows:

- State of art facilities for Biotechnology, Microbiology, and Biochemistry
- Augmentation of central instrumentation facility
- NABL accreditation
- Quality testing lab for Bio-pharma, Nutraceuticals, and Food products.

### **Budget and resource mobilization**

Annual budget will be planned by RCC and will be approved by the management board. Recommendations of advisory committee will be considered while drafting the budget. Annual budget is decided based on the strategic plan and the existing support from the funding agency. The budget proposed will be presented by the research director to management board for approval. Implementation, financial audit, and research audit will be done at two levels. Internal auditing and external auditing will be taken up and statement of expenditure, utilization certificate and progress report will be submitted as per the norms.



### **National, international, and private funding agencies**

Eligible faculty members and students are encouraged to secure grants and funds from various agencies. The grant proposals need to be reviewed and scrutinized by research coordination committee. The grant proposals will be revised based on the recommendations and will be submitted through proper channel to the funding agency. The action plan for securing grants from funding agencies is clearly defined and is as given below.

The Research cell identifies funding agencies, call for proposals, and grant in aid informs to all the eligible members. Draft proposals from the members will be secured, scrutinized, and brainstormed. With suitable modifications, possible collaborations, proposals will be revised and submitted to the RCC. After final approval from research coordination committee, proposals will be submitted to funding agency. After grants are secured, purchase committee will be constituted. The role of purchase committee is to secure quotations either through e-tendering or through mails. Entire mechanism shall be transparent. Project progress review meetings shall be conducted periodically, and support will be provided wherever necessary. Project investigator will be rewarded with incentives and the incentive will be recommended by the committee and approved by the management board.

### **Research Management and Ethics**

Research coordination committee will be responsible for implementation and management of research activities. Under research coordination committee, there will be sub committees/teams for purchase, extension, research collaboration, project management, literature resource, contract R&D activities, conferences organizing team, regulatory compliance, ethical committee, and recognitions.

The Institute shall recruit faculty members and researchers who have demonstrable/demonstrated capability in research. Faculty incentives and promotion may significantly depend on projects undertaken. The quality of research output, especially research publications, may be assessed based on Impact Factor (IF) and H index.

Students are encouraged to work on dissertation or small funded projects reviewed by the peer-scientific team and ethical committee. The Institution provides awareness of academic and research misconduct like plagiarism for promoting and improving the quality of research. Any work involving animal models, clinical research will be submitted to RCC and ethical committee for clearance. Unethical practices, plagiarism, data theft, copying is not tolerated, and disciplinary action shall be initiated. It is expected that each member involved in research such as faculty, researchers, and postgraduate researchers will adhere to highest ethical standards of conduct. Ethical standards of conduct include data integrity, adhering to ethical guidelines, given from time to time, for carrying out research. Each faculty member and researcher shall follow academic honesty in his/her research work. Faculty and researchers shall be careful not to fall prey to academic dishonesty.

A disciplinary committee, on instruction of chairman, shall be formed to carry out inquiry when academic dishonesty as reported against an individual/team. Suitable disciplinary action may be initiated, if found guilty, against such individual/team. Plagiarism or any form of copying and research misconduct is claimed to be unethical and will be punishable offense under the law. The research misconduct includes self- plagiarism, fabrication, falsification, manipulation of research work data or images / digital image/use of unreliable and duplicate images, exaggeration on any part of results and interpretation, use of unauthenticated statistical tools for analysis and ghost authors.

Students are encouraged to work on dissertation or small funded projects reviewed by the peer-scientific team and ethical committee. The Institution provides awareness of academic and research misconduct like plagiarism for promoting and improving the quality of research. Any work involving animal models, clinical research will be submitted to RCC and ethical committee for clearance. Unethical practices, plagiarism, data theft, copying is not tolerated, and disciplinary action shall be initiated. It is expected that each member involved in research such as faculty, researchers, and postgraduate researchers will adhere to highest ethical standards of conduct. Ethical standards of conduct include data integrity, adhering to ethical guidelines, given from time to time, for carrying out research. Each faculty member and researcher shall follow academic honesty in his/her research work. Faculty and researchers shall be careful not to fall prey to academic dishonesty. A disciplinary committee, on instruction of chairman, shall be formed to carry out inquiry when academic dishonesty as reported against an individual/team. Suitable disciplinary action may be initiated, if found guilty, against such individual/team. Plagiarism or any form of copying and research misconduct is claimed to be unethical and will be punishable offense under the law. The research misconduct includes self-plagiarism, fabrication, falsification, manipulation of research work data or images / digital image/use of unreliable and duplicate images, exaggeration on any part of results and interpretation, use of unauthenticated statistical tools for analysis and ghost authors.

### **Conferences, workshops, and seminars**

The Institution shall encourage to organize conferences, seminars, symposia, workshops, and hands on training by providing financial assistance. Proposals shall be submitted to granting agencies for support. Academic partners, knowledge partners, industry partners and publishing partners shall be identified, and collaborations shall be established. Financial support is provided for faculty and students to attend State/National/International conference. Support shall be extended for prize winning posters/presentations. Budgetary provision shall be made for cash incentives for publication in reputed journals.

### **Collaborations and MOUs**

Members of research cell shall be encouraged to collaborate with inter and intra institutional researchers. Industrial live projects and consultancies shall be a major focus of the institution. Collaborations and MOUs are formulated including ownership of materials, procedures, data, IPR's, joint publications, managing research findings and commercializing research outcomes. Researchers must acquaint themselves with all aspects including the national and international requirements of the research collaborations, mandatory approvals, memorandums of understanding (MOU), material transfer agreements (MTA) and approval of collaborating institutes, researchers for undertaking inter institutional research.

### **Research Data Management**

Padmashree Research Centre effectively manages and maintains the data generated by research project work as an important part of research and innovation practice. The following steps are undertaken for data management:

#### **Documentation in blue data book**

- Clear instructions and mechanism for generating data Digitalization of daily research work done
- Assurance of integrity in research data management
- Advanced data protection, storage and minimizing the risk of data loss. Enablement of authenticated data transfer and collaboration.
- Follow the principle of open access to publicly funded research project data deliverables. Compliance with the requirements of funding agencies and industries.
- Responsible data handling with proper storage and protection against accidental loss, damage, and theft.

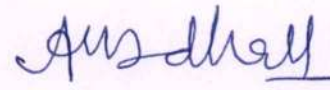
#### **Ensuring authorships in publications and patents**

Periodic review of research output shall be carried out by each department and provide such information to research cell, RCC, IQAC, periodically (preferably quarterly) for assessment and recommendations for publication and patenting.

### Intellectual Property Rights

Patent facilitating cell shall be constituted with one patent attorney as external member and other RCC members. This sub team shall provide guidelines for patent drafting, filing and examination. Annual training sessions on the same shall be organized by inviting experts. Financial assistance shall be provided for filing patents.

Padmashree Research Centre has adopted the definitions of research misconduct set out by university grants commission, (promotion of academic integrity and prevention of plagiarism in higher.



**Dr. Anuradha. M**  
Principal  
Padmashree Institute of  
Management & Sciences



**Government of India  
Ministry of Health & Family Welfare  
Department of Health Research**

2nd Floor, IRCS Building,  
New Delhi - 110001  
Dated : 30-Aug-2022

**Provisional Certificate**

**Subject: Provisional registration of the Ethics Committee relating to Biomedical and Health Research with the National Ethics Committee Registry for Biomedical and Health Research (NECRBHR), Department of Health Research (DHR).**

In exercise of the powers conferred by sub-rule (3) of rule 17 of the New Drugs and Clinical Trials Rules, 2019, the designated authority in the Department of Health Research, Ministry of Health & Family Welfare, hereby provisionally registers and permits the following Ethics Committee to perform the duties of ethics committee as specified in Chapter-IV of the New Drugs and Clinical Trials Rules, 2019.

**Name :** Padmashree Institutional ethics committee  
**Address :** Padmashree Group of institutions, 149 padmashree campus sulikere post kommaghatta, Bangalore, Bengaluru (Bangalore) Rural, Karnataka - 560060  
**Contact No:** 08028485206  
**Fax :** -NA-

2. The Ethics Committee shall observe all the conditions as stipulated in Chapter-IV of the aforesaid Rules, i.e., New Drugs and Clinical Trials Rules, 2019 and the National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, specified by the Indian Council of Medical Research (ICMR).
3. The designated authority shall scrutinize the documents and information furnished with the application by the Ethics Committee for the issue of final registration certificate.
4. The above provisional registration shall be valid for a maximum period of two years from the date of its issue or till grant of final registration or rejection of provisional registration, whichever is earlier.



**ANU** Digitally signed  
by ANU NAGAR  
**NAGAR** Date: 2022.08.30  
12:15:00 +05'30'  
(Anu Nagar)  
Joint Secretary  
Department of Health Research  
Designated Authority

**UNDERTAKING BY THE ETHICS COMMITTEE**

1. Full name, address and title of the Chairperson      Swamy R M, Sri Siddhartha Medical College, Tumakuru, Tumakuru (Tumkur), Karnataka, India - 572107
  
2. Name and address of the office :      Padmashree Institutional ethics committee, Padmashree Group of institutions, 149 padmashree campus sulikere post kommaghatta, , Bangalore, Bengaluru (Bangalore) Rural, Karnataka - 560060  
Contact No. : 08028485206 Fax No. :
  
3. Names, address, qualifications & designation of all the members of the Ethics Committee\*

S.No.	Name	Qualification with Specialization	Current Organization	Telephone number, fax number, e-mail and mailing address	Designation/ role of member in Ethics Committee	Affiliation of member with institute that has constituted the Ethics Committee
1	Dr. Swamy R M	MBBS (MD pharmacology)	Sri Siddhartha Medical College	Mobile: 9886420408, email: dr. swamyrm@gmail.com Add: 3 8th Cross 1st A Main RR Layout, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560056	Chair Person - Basic Medical Scientist (Dual Role)	No
2	Dr. Shruthi Hosur Puttappa	MBBS (MD pathology)	Padmashree Group Of Institutions	Mobile: 9535504757, email: 1111. shruthi@gmail.com Add: 254/A 19th Cross 22nd Main MC Layout, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560040	Member Secretary	Yes
3	Dr. Sunil Vittal Nayak	MBBS (MD - Pathology & Microbiology )	Padmashree Group Of Institutions	Mobile: 9448738112, email: sunil. emante@gmail.com Add: 204 1st Floor J J Galaxy Appartments Site 2, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560040	Basic Medical Scientist	Yes



4	Dr. Chandrika Anand	MBBS (MD - Obstetrics & Gynaecology )	Saraswathi Clinic	Mobile: 9448146699, email: chandrikadg19@gmail.com Add: 582/k 7th Main Road Vinayaka Layout, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560072	Clinician	No
5	Mr. Subbarao H V	BA (Not Applicable)	Yoga Parijnana Pratistana	Mobile: 9449002020, email: hvsubbarao@gmail.com Add: 621 Leela 80 Feet Rd, 2 Blk, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560010	Social Scientist	No
6	Ms. Krutika Raghavan	LLB (BA)	Indus Law Advocates	Mobile: 9972557098, email: krutika.raghavan@gmail.com Add: Flat No 101 Skyline Chalet Aparatment, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560004	Legal Expert	No
7	Mr. Raju N S	12th (Not Applicable)	Contractor	Mobile: 9448367878, email: padmaraj1088@gmail.com Add: 248, chithrakoota, 7th Main 10th Cross, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560072	Lay Person	No
8	Mr. Sadiq Pasha	BSc (MSc)	Bangalore University	Mobile: 9916683826, email: sadiqbujc@gmail.com Add: 4/2 4th Floor 5th Cross MD Block, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560018	Member	No



9	Mr. Sathish U Adiga	Other (Priest-theologist)	Free Lancing Priest	Mobile: 9844969463, email: sathishuadiga@gmail.com Add: 597, Prashantha Vana 7th Main 12th Cross, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560072	Member	No
10	Dr. Indu B K	BSc (MSc)	Padmashree Group Of Institutions	Mobile: 9513114756, email: Indu1508@gmail.com Add: 730 Shashwathi 17th Cross, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560078	Scientific Member	Yes
11	Mr. Rajesh Shenoy	BSc (MSc)	Padmashree Group Of Institutions	Mobile: 9663571097, email: ranjalrajesh@gmail.com Add: 201 Achuth Nest Apartment 7th Main Road, Bangalore, Bengaluru (Bangalore) Urban, Karnataka-560056	Scientific Member	Yes

#### 4. Commitments:

(1) The Committee shall review and accord its approval to a biomedical research and also carry ongoing review of the study at appropriate intervals, as specified in latest edition of National ethical guidelines for biomedical and health research involving human participants - ICMR for safeguarding the rights, safety and well- being of the research participants.

(2) In case of any serious adverse event occurring to research participants during the research study, the Committee shall analyze and forward its opinion as per procedures specified under National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

(3) The Committee shall allow experts/officials authorized by Department of Health Research (DHR) to enter its premises to inspect any record, data or any document related to research study and provide adequate replies to any query raised by such experts/officials, as the case may be, in relation to the conduct of biomedical and health research.

(4) We agree to maintain adequate and accurate records after the completion or termination of biomedical & health research study for not less than 3 years from the date of completion or termination of the study (both in hard and soft copies).





(Signature of the Chairperson)

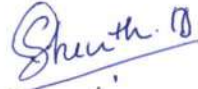
Date : 4/01/2023



**CHAIRPERSON**  
Institutional Ethics Committee  
Padmashree Group of Institutions  
EC/NEW/INST/2021/244  
Kempgowda Layout, B'lore-60  
Karnataka

(Signature of the Member secretary)

Date : 04/01/2023



**MEMBER SECRETARY**  
Institutional Ethics Committee  
Padmashree Group of Institutions  
EC/NEW/INST/2021/244  
Kempgowda Layout, B'lore-60  
Karnataka, India

**RESEARCH FACILITY**  
**PADMASHREE INSTITUTE OF MANAGEMENT**  
**AND SCIENCES**

**No 149, Padmashree Campus, Kommaghatta,**

**Kengeri, Bangalore – 560 060**

## RESEARCH INFRASTRUCTURE

An exclusive research wing is established with high end equipment such as High-performance liquid chromatography, Atomic Absorption Spectroscopy(AAS), Gas Chromatography(GC), Fast Protein Liquid Chromatography(FPLC), Nano drop spectrophotometer, UV spectrophotometer, BOD incubator, Fermenter, Florescent microscope.

### List of Research labs at Padmashree Institute of Management and Sciences

S. No.	Facility
1	Animal cell culture laboratory
2	Proximate laboratory
3	QC Biochemistry laboratory
4	Phytochemistry laboratory
5	Research laboratory
6	Plant tissue culture laboratory
7	Molecular Biology laboratory
8	Food Sensory laboratory
9	QC Microbiology laboratory
10	Central instrumentation laboratory
11	GC & AAS laboratory
12	Food processing laboratory

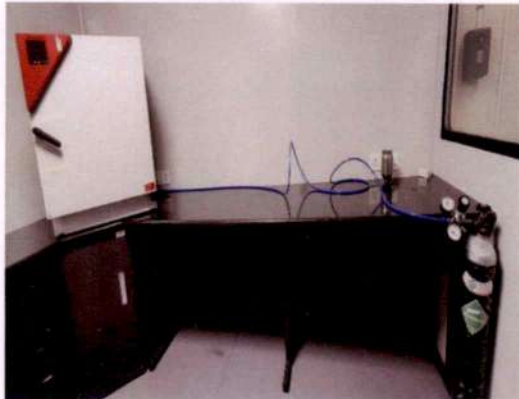


*Anuradha M*

**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

**Research Infrastructure**

**Animal cell culture laboratory**



**Proximate laboratory**



**QC Biochemistry laboratory**



**Phytochemistry laboratory**



**Research laboratory**









**Plant tissue culture laboratory**



*Dr. Anuradha M.*  
**Dr. Anuradha. M**  
Principal  
Padmashree Institute of  
Management & Sciences

**Research Infrastructure**

<p><b>Molecular Biology laboratory</b></p>	<p><b>Food Sensory laboratory</b></p>
	
<p><b>QC Microbiology laboratory</b></p>	<p><b>Central instrumentation laboratory</b></p>
	
<p><b>GC &amp; AAS laboratory</b></p>	<p><b>Food processing laboratory</b></p>
	



*Anuradha M*  
**Dr. Anuradha. M**  
Principal  
Padmashree Institute of



No.Aca-III/A3/PIMS&amp;SC/RC/2020-21

Jnanabharathi  
Bengaluru-560 056.  
20<sup>th</sup> January 2021**NOTIFICATION**

**Sub:** Recognition of Padmashree Institute of Management & Sciences, Bengaluru, as a Research Centre for conduct of Ph.D. Programme of Bangalore University.

**Ref:** 1. Expert Committee report dated: 02-03-2020.  
2. Resolution of the Academic Council dated:03-09-2020.  
3. Resolution of the Syndicate dated: 05-01-2021.

\* \* \*

Pursuant to the resolution of the Syndicate at its meeting held on 05-01-2021 and in exercise of the powers conferred under Section 66 of the KSU Act 2000, the Bangalore University hereby accords continuation/fresh recognition to **Padmashree Institute of Management & Sciences, Bengaluru**, as Research Centre for conducting research leading to Ph.D. programme in **Bio-Chemistry (fresh) and Biotechnology (continuation) from the year 2020-21 to 2023-24**, subject to the following conditions:-

1. The Centre should follow the Regulations Governing Doctoral Degree Programme of the Bangalore University and carry out the Ph.D. Programme as per the regulations as modified from time to time.
2. A Research Advisory Committee (RAC) should be set up with the Chairperson of concerned P.G. Department of the University. This Committee should meet twice a year, preferably in May and November, so that progress reports of research students are scrutinized and forwarded through the committee.
3. The observation/conditions as laid down by the Expert Committee of the Bangalore University in their report have to be fulfilled, a compliance in this regard shall be sent to the University within 15 days of the receipt of this notification.
4. **The Centre should submit an undertaking in the enclosed proforma within 15days of the receipt of this notification.**
5. The Centre will have to pay the prescribed annual affiliation and other fees (for Ph.D., programme), to the Bangalore University and seek renewal of recognition once in four years.
6. Guest/Temporary faculty of the Department are not eligible to guide students.

BY ORDER

REGISTRAR

To,

**The Principal,**  
Padmashree Institute of Management & Sciences,  
#149, Kommagatta Villegge, Kengeri Hobli, Bengaluru -560 060.

Copy to:

1. The Registrar(Eval), Bangalore University, Bengaluru-560 056.
2. The Dean, Faculty of Arts / Science / Commerce, Bangalore University, Bengaluru.
3. Chairman of the concerned PG Dept. of the University.
4. The Dy.Registrar/Superintendent, Ph.D. Section, Aca-IV, Bangalore University, Bengaluru.

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MoU) is signed between Padmashree Group of Institutions (PGI), located at # 149, Padmashree Campus Kommaghatta, Sulikere post, Kengeri, Bangalore -560060 by its Director, Prof. Rajesh Shenoy R - (**here in referred to as 1<sup>st</sup> Party**) and NITTE (Deemed to be University), 6<sup>th</sup> Floor University Enclave, Medical Sciences Complex, Deralakatte Mangaluru, Karnataka, India 575018 represented by its Vice-Chancellor Prof. (Dr) Satheesh Kumar Bhandary, having office at address as above. (**here in referred to as 2<sup>nd</sup> Party**) on this 27 day of AUGUST 2020.

### 1 Background:

- (a) 1<sup>st</sup> Party, Prof. Rajesh Shenoy R, Director, Padmashree Group of Institutions which was established in 1996, today has 8 colleges and 30 different courses in various disciplines. The courses offered here are affiliated to Rajiv Gandhi University of Health Sciences and Bangalore University.
- (b) 2<sup>nd</sup> Party NITTE (Deemed to be University) India is an esteemed Deemed-to-be-University in India established under section 3 of UGC Act 1956-accredited by NAAC with A grade & also ranked as A category deemed University by MHRD Govt of India.
- (c) Both parties, having come to know about the qualitative programmes and services of each other had shown willingness to enter into a MoU for the purpose of Research and Education in the mutually agreeable fields. Accordingly, both parties have agreed for the same and both parties have decided to enter upon this MoU.

### 2. Objective of MoU:

- (a) Both the parties mutually intend to conduct high quality research projects and publish in high impact journals
- (b) To combine the best of the technology with the best of the traditional wisdom to innovate new tools for health and wellness
- (c) To conduct and support joint workshops and seminars to disseminate usefulness of Technology in Traditional medicine.

### 3. Areas of Cooperation

- (a) Collaborative research projects on mutually agreeable fields.
- (b) Biostatistics and Bioinformatics services to NITTE.
- (c) Wet lab access to PGI

*Continued...*

(f) **Law of the land:** Both parties hereby agree and undertake to abide and confirm with the respective law of the land, and, terms and conditions of the agreements which might be entered upon under this MoU. Licenses/ Approval/s or / clearance/s from statutory authorities/bodies if any, shall be obtained by the respective parties where ever applicable.

**3. Term of the MoU:**

(a) This Memorandum of Understanding shall be valid and effective after approval of the terms and conditions of the agreement by the appropriate authorities of the both parties It will remain valid and effective for a period of Two years from 2020 to August 2023. There after the parties to this MoU are at liberty to review the period of this MoU by mutual consent for any further period, one Month before the expiry of the term vide a fresh MoU.

(b) This MoU may be treated as terminated / cancelled / withdrawn by either parties of MoU for any valid reason with one month prior notice to the other party, and in such case, the ongoing projects will be allowed to be completed as per the mutual understanding of both parties.

**4. Dispute resolution:** Notwithstanding anything contained in any other statute for the time being in force, if any genuine dispute arises between the parties in the discharge of their respective responsibilities and obligations under this MoU and in case such dispute is not settled amicably between the parties, it shall be referred to the VICE CHANCELLOR of NITTE (Deemed to be University) & The Director of the First Party for arbitration and both shall jointly appoint or nominate an arbitrator as per the procedures in vogue for resolving the said dispute and the decision of said Arbitrator shall be final as far as the dispute is concerned and the parties are bound by that decision.

In WITNESS WHERE OF the parties hereby have executed this MoU on 27 day of Aug 2020.

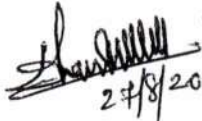
**SIGNED AND DELIVERED**

**For Padmashree Group of Institutions, Bangalore.**



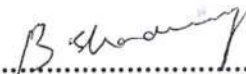
.....  
**Prof. Rajesh Shenoy R**  
**Director**

Witnesses

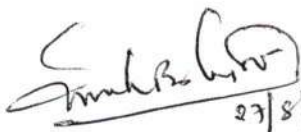
1.   
27/8/20

**SIGNED AND DELIVERED**

**For NITTE (Deemed to be University) Mangalore.**



.....  
**Prof. (Dr) Satheesh Kumar Bhandary**  
**Vice-Chancellor**

2.   
27/8/2020



**SALES INVOICE**

Invoice No : IPL-BC22-23-0010	Invoice Date : 27-04-2022
PO No : NEFT	PO Date : 04-04-2022
SO No : IPL-SO-2023-00088	SO Date : 27-04-2022
Place of Supply : 29-Karnataka	Payment Terms: Received
Customer Name : Padmashree Group of Institutions Billing Address : Sy. No.149, Kommaghatta Sulikere Post Kengeri Padmashree Campus Bangalore Karnataka, State Code: 29 PIN: 560060 India GSTIN: URD	Customer Name : Padmashree Group of Institutions Shipping Address : Sy. No.149, Kommaghatta Sulikere Post Kengeri Padmashree Campus Bangalore Karnataka, State Code: 29 PIN: 560060 India GSTIN: URD

Sr	Item	Description	HSN	Quantity	Rate	Amount
1	Koha_AMC Koha Annual Maintenance Charges (AMC)	Koha Annual Maintenance Charges (AMC) AMC Period : April 2022 - March 2023	998313	Nos 1.0	₹ 63,000.00	₹ 63,000.00
	<b>Total</b>			<b>1.0</b>		<b>63,000.00</b>

Total ₹ 63,000.00

SGST @ 9% ₹ 5,670.00

CGST @ 9% ₹ 5,670.00

Grand Total ₹ 74,340.00

In Words : INR Seventy Four Thousand, Three Hundred And Forty only.

**Bank Details:**

A/c Name: Informatics Publishing Ltd, Bank & Branch: Canara Bank, South End Road Branch, Bangalore, A/c Number:1173257000988, IFSC Code: CNRB0001173.

Payment Details: NEFT Cr-AXSK220940010819-UTIB0001447-PADMASHREE INSTITUTE OF NURSING-hull on 04-04-2022 for Rs. 73,080/-

**Declaration**

We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.

Informatics Publishing Limited

  
Authorized Signatory



PROFORMA INVOICE  
Proforma# PI/22-23/0016

**Pronteff IT Solutions Pvt Ltd**

Company ID : U72900TG2017PTC118318  
#1-48/243, 4th Floor, RR Plaza, Kavurihills, Madhapur  
Hyderabad Telangana 500081 India  
GSTIN 36AAJCP3092M1ZW

**Bill To**

**Padmashree Institute of Management and Sciences**  
Dr. Anuradha (Principal)  
Padmashree Institute of Management and Sciences  
No149, Padmashree campus,  
Kommaghatta, Sulikere, Kengeri,  
Bangalore  
560060 Karnataka  
India

Proforma Date : 13-10-2022

Expiry Date : 14-10-2022

Reference# : PIMS/PO/OCT/2022/001

Place Of Supply: Karnataka (29)

**Subject :**

Supply of IBM SPSS Statistics Slandered (Perpetual)

Item & Description	HSN/SAC	Qty	Rate	Amount
DOEKZLL IBM SPSS Statistics Standard Authorized User License + SW Subscription & Support 12 Months (Perpetual)	997331	1	2,05,133.29	2,05,133.29
Sub Total				2,05,133.29
IGST18 (18%)				36,923.99
<b>Total</b>				<b>₹2,42,057.28</b>

Total In Words: **Indian Rupee Two Lakh Forty-Two Thousand Fifty-Seven and Twenty-Eight Paise Only**

**Notes**

PAN no. AAATP1504C

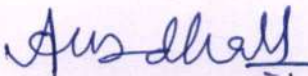
**Bank Details :**

Account Name: Pronteff IT Solutions Private Limited  
Account No: 50200026354988  
Type of Account: Current  
Name of Bank: HDFC Bank  
Branch Name: Begumpet, Hyderabad  
IFSC No: HDFC0000621  
MICR No: 500240002  
SWIFT Code No: HDFCINBBHYD

## LIST OF PATENTS

### List of patents granted

- US Patent No. 9565804 - Enhancing secondary metabolites and nutrients in plants and plant parts. Inventors: M. Anuradha and S. Balasubramanya
- Indian Patent No. 373689 - Post-harvesting techniques for enhancing nutrients and phytochemicals in plant/plant parts. Inventors: M. Anuradha and S. Balasubramanya
- Indian Patent No. 391963 - Method, system, and apparatus for growing and extracting plant and/or plant parts for enhanced benefits. Inventors: M. Anuradha and S. Balasubramanya
- Indian Patent No. 406599 - Enhancing secondary metabolites and nutrients in plants and plant parts. Inventors: M. Anuradha and S. Balasubramanya
- Indian Patent No. 417240 - Techniques for enhancing nutrients and phytochemicals in plant/plant parts. Inventors: M. Anuradha and S. Balasubramanya



**Dr. Anuradha. M**  
Principal  
Padmashree Institute of  
Management & Sciences



US009565804B2

(12) **United States Patent**  
**Maniyam et al.**(10) **Patent No.:** **US 9,565,804 B2**  
(45) **Date of Patent:** **Feb. 14, 2017**(54) **ENHANCING SECONDARY  
PHYTOCHEMICAL AND NUTRIENTS IN  
PLANTS AND PLANT PARTS**(76) Inventors: **Anuradha Maniyam**, Bangalore (IN);  
**Balasubramanya Subbanarashiman**,  
Bangalore (IN)(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.(21) Appl. No.: **13/805,079**(22) PCT Filed: **Jan. 31, 2011**(86) PCT No.: **PCT/IN2011/000065**§ 371 (c)(1),  
(2), (4) Date: **Dec. 18, 2012**(87) PCT Pub. No.: **WO2012/020420**PCT Pub. Date: **Feb. 16, 2012**(65) **Prior Publication Data**

US 2013/0139282 A1 May 30, 2013

(30) **Foreign Application Priority Data**

Aug. 12, 2010 (IN) ..... 2316/CHE/2010

(51) **Int. Cl.****A01G 1/00** (2006.01)  
**A01N 59/16** (2006.01)  
**A01N 37/44** (2006.01)  
**A01N 65/22** (2009.01)  
**C05D 9/02** (2006.01)  
**C05F 11/00** (2006.01)  
**C05F 11/10** (2006.01)  
**C05G 3/00** (2006.01)(52) **U.S. Cl.**CPC ..... **A01G 1/001** (2013.01); **A01N 37/44**  
(2013.01); **A01N 59/16** (2013.01); **A01N**  
**65/22** (2013.01); **C05D 9/02** (2013.01); **C05F**  
**11/00** (2013.01); **C05F 11/10** (2013.01); **C05G**  
**3/0064** (2013.01); **Y02E 50/343** (2013.01);  
**Y02W 30/47** (2015.05)(58) **Field of Classification Search**None  
See application file for complete search history.(56) **References Cited**

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\* cited by examiner

*Primary Examiner* — Tracy Vivemore*Assistant Examiner* — Monica Shin(57) **ABSTRACT**

According to the invention, the object is achieved by providing all necessary conditions at optimum level to produce plant and plant parts having higher nutrients and secondary metabolites, when compared to normal plants or grown in tap water. Formulated solution containing balanced nutrients, higher levels of targeted nutrient, required pH, single or multiple eliciting factors, required concentrations of natural preservatives and maintained at required temperature and light facilitated to achieve the above object.

**1 Claim, 3 Drawing Sheets**



Figure 1

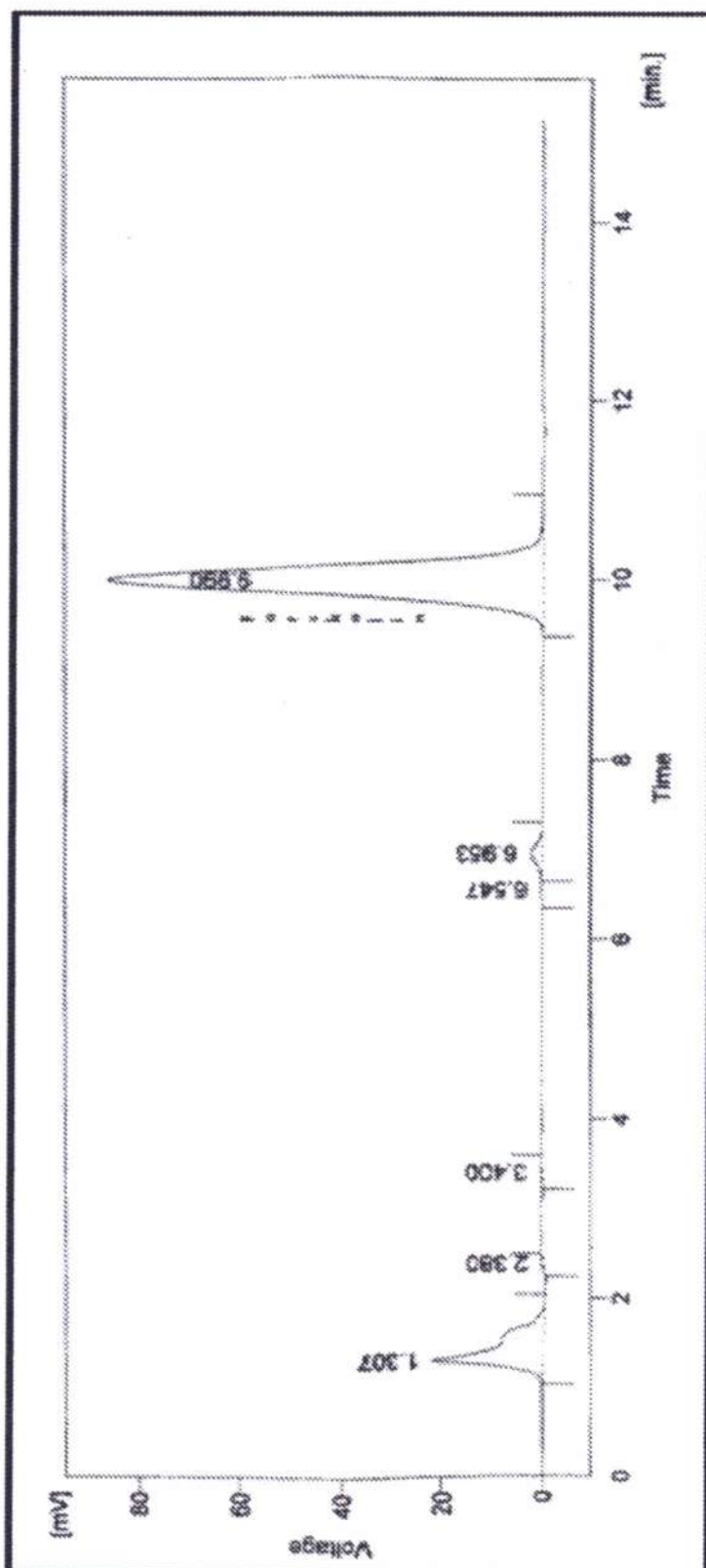


Figure 2

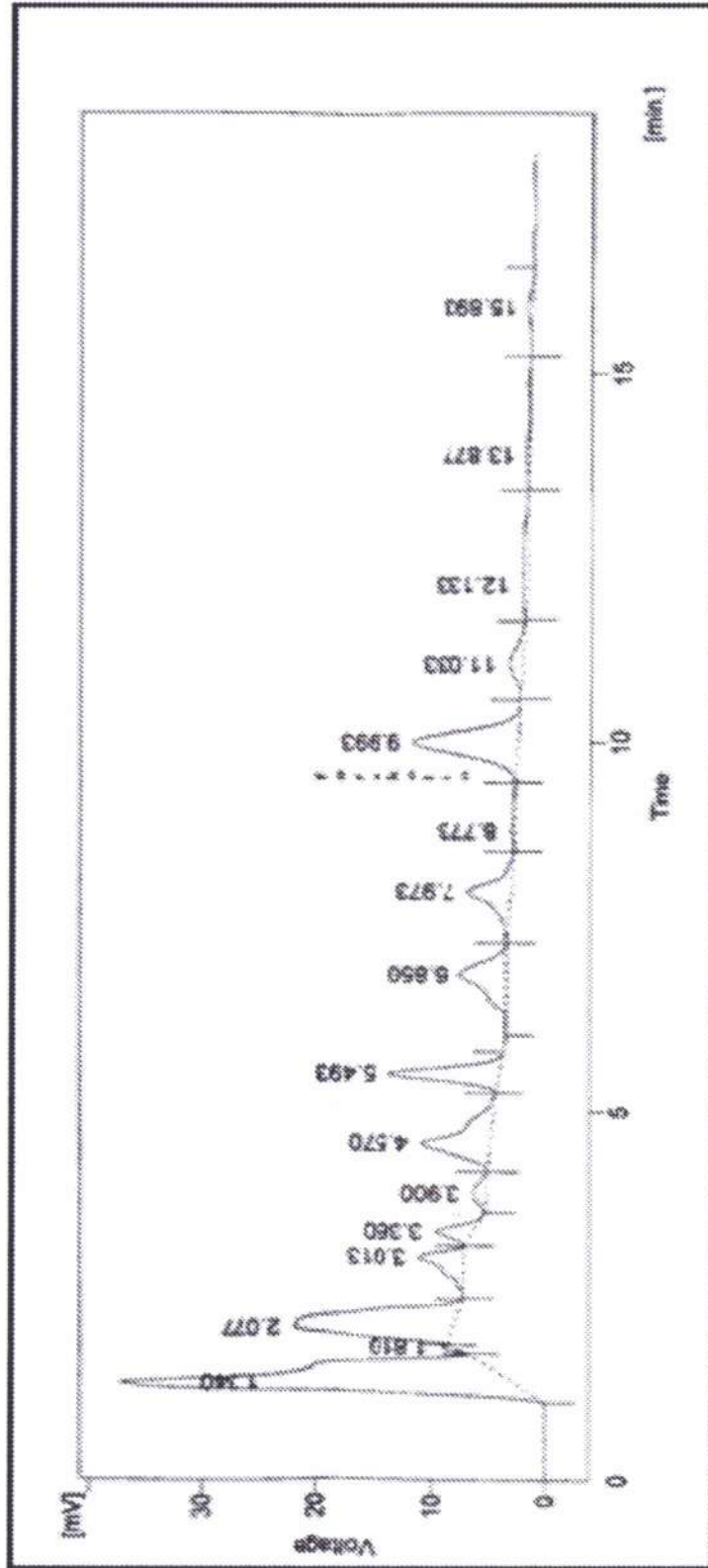


Figure 3

1

## ENHANCING SECONDARY PHYTOCHEMICAL AND NUTRIENTS IN PLANTS AND PLANT PARTS

### CROSS REFERENCES TO RELATED APPLICATIONS

This application claims priority from International PCT application No. PCT/IN2011/000065 filed on Jan. 31, 2011, which in turn claim priority from Indian patent application No. 2316/CHE/2010 filed on Aug. 12, 2010. Both applications are incorporated herein in its entirety by reference.

### BACKGROUND

#### Field of Invention

This invention in general relates to plants and plant parts and in particular to enhancing secondary metabolites and nutrients in plants and plant parts.

#### Related Art

Plants often selectively absorb and accumulate micro and macro-nutrients from the place where it is growing such as soil, water, substrate, hydroponics and other sources. Lesser amount of micro and macro nutrients in sources/soil not only affects its accumulation in plant/plant parts but also affects both primary and secondary metabolism in plants.

Often deficiency in nutrients in the source is due to varied geographical conditions and prolonged usage of same source (for example, agricultural fields) without any replenishment causing changes in composition of nutrients in the soil. Such deficiency often results in lesser uptake of nutrients by the plants and plant parts. Such deficiency in uptake may result in various undesirable results. For example, such deficiency may result in lesser accumulation of desired nutrients in the fruits and vegetables produced by the plants/plant parts.

In general, plants have an ability to synthesize and accumulate secondary metabolites for its defence purposes, combat stress and aid pollination. These secondary metabolites synthesized and accumulated by plant parts are often used for medicinal, nutritive and cosmetic purposes. Often plants and plant parts are processed to extract these accumulated secondary metabolites. It is therefore desirable to produce the plant/plant part with higher nutrients and secondary metabolites in order increase the processing yield.

According to one aspect of the present invention, secondary metabolites in plants and/or in parts of plants are enhanced by inducing stress condition within the plant.

Another aspect of the present invention, nutrients and metabolites are simultaneously enhanced in a plants or plants part. In an embodiment of the present invention, secondary metabolites and or nutrients in a plant or plant parts are enhanced by growing the plants/plants part in a formulated solutions comprising of natural preservatives, target nutrients and elicitors individually or in combination.

According to yet another embodiment of the present invention, a product of the process is used as source of macro and micro-nutrient with higher levels of secondary metabolites for cosmetic, nutritional, pharmaceutical and therapeutic functions.

Further, in yet another aspect, nutrients are enhanced in plants and plant parts thereby providing natural and bio-available sources.

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According to another aspect, the present invention provides cosmetic, nutritional, pharmaceutical and therapeutic products derived from natural source of phytochemicals and nutrients obtained from above technique.

According to another aspect of the present invention, metabolites and nutrients are extracted together or individually. Several aspects of the invention are described below with reference to examples for illustration. It should be understood that numerous specific details, relationships, and methods are set forth to provide a full understanding of the invention. One skilled in the relevant art, however, will readily recognize that the invention can be practiced without one or more of the specific details, or with other methods, etc. In other instances, well-known structures or operations are not shown in detail to avoid obscuring the features of the invention.

### BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be described with reference to the following accompanying drawings.

FIG. 1 shows freshly harvested roots of *Plectranthus barbatus* as described in an example embodiment.

FIG. 2 Shows Chromatogram (HPLC) of forskolin standard (95%) in an example embodiment

FIG. 3 Chromatogram (HPLC) of forskolin estimated in control dried roots *Plectranthus barbatus* after 7 days of treatment according to an example embodiment.

### DETAILED DESCRIPTION

According to one embodiment of the present invention, the uptake of nutrients is increased to accumulate larger quantity of nutrients. Further, the synthesis is enhanced in the plant/plant parts to accumulate larger quantity of phytochemicals/Secondary Metabolites.

As a result, plants and plant parts of the present invention may be used/processed to obtain various nutrients, secondary metabolite (SM) and other compounds with a higher yield, less cost, higher safety and may be used widely for having long term health promoting or medicinal properties more so in prevention, management and curing of diseases. However, SM/phytochemicals in plants and plant parts are produced in very low quantities and also dependent on its physiological and developmental stages. Certain plants selectively absorb and accumulate nutrients from soil, which when consumed can contribute to the higher intake of nutrients. But geographical variations of nutrients content in soil will have a major role in the actual nutrient content in these plants.

Further certain plants are made to selectively absorb and accumulate nutrients from the formulated solutions that enable plants to contribute to the larger quantity of nutrients.

According to an aspect of the invention, the objective is achieved by growing the plant/plants parts in a formulated solution providing, all necessary conditions at optimum level to produce plant and plant parts having higher nutrients and secondary metabolites, when compared to normal plants or grown in tap water. Formulated solution contains balanced nutrients, higher levels of targeted nutrient, required pH, single or multiple eliciting factors, required concentra-



tions of natural preservatives and maintained at required temperature and light at optimum level to produce plant and plant parts with larger quantity of nutrients and secondary metabolites, when compared to normal plants or grown in tap water. Thus, due to maintenance of light, temperature and pH level at a desired value, providing other nutrients for the overall growth and metabolism of the plant/plant part, the plant/plant parts are made to absorb the targeted nutrient in the formulated solution at a higher level there by accumulating the corresponding nutrients in the larger quantity. Further, the presence of natural preservatives in the formulated solution may prevent the growth and release of toxins by microbes which may further interfere with growth, metabolism and accumulation of targeted nutrients in the plants/plant parts grown in the formulated solution.

According to another aspect of the invention, the presence of the elicitors (otherwise absent in the other normal conditions in which plants are grown conventionally) in the formulated solution may trigger/cause enhanced synthesis in the plant/plant parts thereby may cause accumulation of larger quantity of phytochemicals/Secondary Metabolites in the plant part grown in the formulated solution. As a result, plants/plant parts are improved with increased amounts of nutrients and elevated levels of secondary metabolites simultaneously. The novelty of the entire process is using natural means to increase secondary metabolites and the product is unique having dual benefit of nutritional improvement with increased levels of secondary metabolites. Thus the present invention may be used for qualitatively improving plants and plant parts in terms of secondary metabolites and nutrients.

According to one aspect, a process for naturally improving the cosmetic, dietary, preventive and therapeutic properties of plants and plant parts is disclosed. According to another aspect, the metabolism is manipulated under controlled conditions, there by not leaving any residual effects in the soil.

The description in the sections below illustrates method of growing plants and plant parts under controlled conditions, supported with a formulated solution, controlled temperature, pH and required photoperiod.

The description in the sections below illustrates the usage of formulated solution for supporting growth and metabolism which include micronutrients, macronutrients, elicitors, increased levels of targeted nutrients and natural preservatives.

The description in the sections below illustrates the elicitor used in the solution, which triggers the secondary metabolism thereby enhancing the levels of same in the plants and plant parts.

The description in the sections below illustrates targeted nutrient source which is provided in more available form, the lethal concentration of the nutrient is also described which affects the plant growth if used at higher levels.

The description in the sections below illustrates method of eliciting the secondary metabolite and the detection and identification of elicited content is described.

The description in the sections below illustrates extraction process of the plants and plant parts used to retain dual secondary metabolites and nutrients is described.

The description in the sections below illustrates the end product, which is having enhanced levels of secondary metabolites and nutrients when compared to normal plant, plant parts, roots, stems, leaves, twigs, inflorescence, buds, flowers, fruits and seeds, its powder and its extracts thereof.

The description in the sections below illustrates Post process data, which shows the presence of natural form of nutrients, elevated levels of secondary metabolites when compared normal plants and plant parts.

While the following description and examples are provided to certain embodiments of the invention, they are not intended to be limiting to the scope of the invention.

Several embodiments of the present invention are described below as examples merely for illustration and other extensions, applications, and usage of the present invention may be apparent to one skilled in the art. All such extensions, applications and usages are covered within the scope of the presentation invention.

The description is further made illustrating the manner in which formulated solution may be prepared for growing a plant/plant parts. Formulated solution may be prepared by mixing balanced nutrient solution, targeted nutrient solution, elicitor solution and preservative solutions in a required proportion. Accordingly, manner in which each such solution may be prepared is described below.

#### Example of Preparation of Balanced Nutrient Solution

In one embodiment, balanced nutrient solution of the present invention comprise macro nutrients at concentrations of at least 100 mg/l of nitrogen, sulfur, calcium, phosphorus, potassium and magnesium in the form of its salts, micronutrients at concentrations at least 0.025 mg/l of Iodine, boron, manganese, zinc, molybdenum copper cobalt and iron in form of its salts are dissolved separately one after the other and mixed to distilled or de-ionised water thoroughly. The stock solutions of the same were stored in a refrigerator at 10° C. and used as balanced nutrient solution for preparing formulated solution. The stock solution may be discarded if there is precipitate or contamination.

#### Example of Preparation of Targeted Nutrient Solution:

There are different nutrient sources among them some are water soluble, non-water soluble, some exist in the form of salts, some are in chelated forms and some are having different valances. For example chromium exists in trivalent and hexavalent form where in the former is non-toxic and later is toxic. The uptake of nutrients depends on all above said objects whose affect is seen in form of health problems associated with diets deficient in such nutrient. Also local variations in nutrients in regular growth environment such as soil, has led to many levels of nutrients deficiencies.

In one embodiment, the form of the targeted nutrient source is converted to facilitate the higher absorption by the plant/plant parts.

For example, chromium targeted solution is prepared by converting chromium nitrate to chromium EDTA as described below.

Preparation of Chromium EDTA was done where in chromium nitrate (8.1 gms) was weighed and dissolved in 25 ml of distilled water. 10 gms of sodium EDTA was weighed and boiled to dissolve in 60 ml of distilled water. pH of the Sodium EDTA solution is adjusted to 5.5-5.6 with 70% sodium bicarbonate solution. The solution are mixed thoroughly and made up to 100 ml by adding distilled water. Required concentrations were added to the balanced nutrient solution.

Required concentration in one embodiment is selected to be below a (lethal) concentration. For example, chromium is used at 4 gm/liter.

Elicitor: An elicitor is an object that triggers the production of phytochemicals, as a defense response to stress. Plants tend to accumulate secondary metabolites in specific cells, at specific stage and very often in response to environmental stresses. In the event of attack of pathogens, pests,

herbivores or any other biotic and abiotic factors, plants respond by activating a range of defense mechanisms which includes induction of biosynthesis of secondary metabolites as phytoalexins.

Earlier the term elicitor was used for compounds that stimulate production of phytoalexins. It is possible that plants and plant parts accumulate more secondary metabolites when they are subjected to certain biotic and abiotic stresses. Now it is commonly used for agents that initiate any type of plant defense be it biotic or abiotic in origin. In present invention yield of the SM/phytochemicals were increased by subjecting the selected plant or plant parts to elicitor/s be it abiotic and biotic. In this invention the targeted nutrient at higher concentrations also behave as elicitor and contribute to the increase in SM/phytochemical and at the same time accumulate thus enhancing its nutritional properties.

#### Example of Preparation of Elicitor Solution:

Potatoes (200 gms) were cut into slices and boiled with 200 ml of distilled water and then filtered through muslin cloth. Twenty grams of dextrose was added to the filtrate and the volume was made up to 1000 ml. The pH of the medium was adjusted to 6.5. Into each 250 ml conical flask 50 ml of the media is dispensed and autoclaved. Loop full of *Aspergillus niger* inoculum grown on solid medium was inoculated into medium. The flasks were incubated and allowed to grow. After 20 days, during sporulation flasks with the cultures were autoclaved. The fungal mat was separated by filtration and then washed several times with distilled water. Aqueous extract was made by homogenizing the mat in a mortar and pestle using acid washed neutralized sand. The homogenized mat was filtered through muslin cloth to obtain mat extract. Required concentrations of mat extracts and mat filtrates were added to the balanced nutrient solution.

#### Example of Preparation of Preservative Solutions:

1% Rosemary Extract was added to the formulated solution.

#### Example of Preparation of Formulated Solution:

Solutions of example 1, 2, 3 and 4 were mixed at required concentration based on the plant and plant parts selected and this becomes the formulated solution of the present invention.

#### Example of Growing Plant/Plant Parts in the Formulated Solution:

Intact or freshly harvested plant parts or plants are fed/grown with/in formulated solution described above and the concentrations and duration of the same is adjusted to the type of plant or plant part selected and also to the targeted nutrient and phytochemicals to be enhanced. One example is described below.

Freshly harvested plant along with roots of *Plectranthus barbatus* was subjected to thorough washing to remove soil and dust. The washed roots were surface sterilized using 1% Teepol solution. 800 gms of intact roots were kept in containers immersed in formulated solutions leaving some portions of plants and plant parts above the solution. The entire process was carried under controlled (pH, temperature, light, preservative) and clean conditions. Required temperature and light was maintained at to induce growth and metabolism. The formulated solution was changed every 12 hours and growth and metabolism process was carried out for 3 hrs to 10 days. The roots of the plant thus grown in the formulated solution is then harvested, thoroughly washed, dried and powdered to suitable mesh.

#### Example of Extraction of Nutrients and SM/phytochemicals

The plants and extract comprises of active ingredient of the plant preserved in water or any other solvents. In the present embodiment active ingredient means targeted nutrient, as well as enhanced phytochemical. The following example further illustrates extracting nutrient/s and SM together.

The improvised and fully dried roots were pulverized to powder and further subjected to extraction with ethanol at 70° C. for two hours. The ethanolic extract was filtered and concentrated in vacuum.

#### Additional Example of Extracting Phytochemical

The improvised and fully dried roots were pulverized to powder and further subjected to extraction with ethyl acetate at 70° C. for two hours. The ethyl acetate extract was filtered and concentrated in vacuum.

#### Further Example of Extracting Nutrient

The improvised and fully dried roots were pulverized to powder and further subjected to extraction with water at 70° C. for two hours. The extract was filtered and concentrated in vacuum. The extract was then subjected to detection and quantified using ICP-OES for the targeted nutrient which has accumulated several fold when compared to control.

#### Detection and Estimation of Forskolin

The plants, plant parts and extract were assayed for forskolin content by High pressure liquid chromatography (HPLC)

Standard preparation: About 25 mg of standard forskolin was weighed accurately into a 25 ml volumetric flask, dissolved and diluted to volume with methanol and mixed well.

Sample preparation: One gram of sample was weighed into a 100 ml flask, 50 ml of methanol was added and refluxed for 30 minutes. The process was repeated with 3x50 ml of methanol. All the methanol extracts were combined and diluted to 250 ml with methanol, mixed and filtered through Whatman No. 42 to get a clear solution.

Mobile phase: Hexane, ethylacetate and methylene chloride were mixed in the proportion of 70:20:10 and degassed.

Chromatographic system: The liquid chromatograph (Shimadzu Corporation, Kyoto, Japan) was equipped with a 210 nm UV detector and C18 column (250x4.6 mm: M/s Spenco Biotech Pvt. Ltd., Bangalore, India). The mobile phase was pumped at the rate of 0.8 ml/min with a back pressure of 200 psi. The injector and the detector were flushed with the mobile phase. The refractive index of the detector was set at 4x and the potentiometer chart speed was set at 0.5 cm/min.

The column was equilibrated for half an hour. The flow rate was about 1.0 ml per minute. The standard preparation was chromatographed and the peak response for forskolin was recorded. Equal volumes of (10 µl) of the standard preparation and sample preparation were injected separately. Recorded the chromatograms and measured the responses for the peak corresponding to forskolin.

The said plants, plant parts and extract was further subjected to detection and quantified using inductively Coupled Plasma—Optically Emission Spectrophotometer (ICP-OES) for the targeted nutrient which has accumulated several fold when compared to control.

Preparation of standards: The working standard solutions were prepared in the range of 0 to 1.5 ppm (0, 0.5, 1, and 1.5 ppm) by diluting appropriately the standard chromium solution with dilute nitric acid.

Preparation of Sample: Weighed about 3 grams of the sample into a 30 ml silica crucible. Heated first over a low Bunsen flame to volatilize the organic matter until no more

smoke came out from the material. Then the crucible was transferred to as muffle furnace having temperature of 550° C. and kept for 5-6 hours for complete ashing. Removed the crucible from the furnace and allowed it to cool. The contents of the crucible were transferred quantitatively into a 150 ml beaker with help of distilled water using water jet. To the above 10 ml of dilute nitric acid and 10 ml of dilute hydrochloric acid was added. Boiled the contents for about 10-15 minutes and allowed it to cool. If any black particles were found, it indicated the incomplete ashing. The whole process was repeated with fresh sample keeping for more time in furnace for ashing. The cooled solution was made up to a known volume with help of distilled water. Performed a blank using all reagents except sample and apply proper correction for test concentration.

Procedure: AAS (M/s GBC Scientific Equipment, Australia, model 932AA) and ICP-OES (M/s Horiba Scientific, USA, Jobin Yvon, Series 24) was switched on as per the work instruction and allowed for the stabilization. The instruments were calibrated by aspirating the known standard solutions. The test solutions were also aspirated and noted down the readings in ppm.

While various embodiments of the present invention have been described above, it should be understood that they have been presented by way of example only, and not limitation. Thus, the breadth and scope of the present invention should

not be limited by any of the above described exemplary embodiments, but should be defined only in accordance with the following claims and their equivalents.

What is claimed is:

1. A method comprising:

preparing a formulated solution comprising an elicitor, a chromium EDTA in an organic form and an active agent; harvesting an unit of a *Plectranthus barbatus* comprising a first quantity of a forskolin and a substantially zero quantity of a chromium, the *Plectranthus barbatus* not requiring the chromium for active metabolism;

processing the *Plectranthus barbatus* with the formulated solution for 3 hours to 10 days to form a processed *Plectranthus barbatus* comprising a second quantity of forskolin and a third quantity of the chromium in an organic form, the second quantity being greater than the first quantity, the third quantity being adequate for extraction;

simultaneously extracting substantially the second quantity of the forskolin and the third quantity of the chromium in organic form from the unit of the processed *Plectranthus barbatus*; and forming a pharmaceutical composition comprising the chromium and the forskolin.

\* \* \* \* \*



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GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

क्रमांक : 044132549  
SL No :



पेटेंट सं. / Patent No. : 373689  
आवेदन सं. / Application No. : 2315/CHE/2013  
फाइल करने की तारीख / Date of Filing : 27/05/2013  
पेटेंटी / Patentee : 1.Anuradha Maniyam 2.Subbanarashimhan  
Balasubramanya

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित POST-HARVESTING TECHNIQUES FOR ENHANCING NUTRIENTS AND PHYTOCHEMICALS IN A PLANT/PLANT PARTS नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 27th day of May 2013 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled POST-HARVESTING TECHNIQUES FOR ENHANCING NUTRIENTS AND PHYTOCHEMICALS IN A PLANT/PLANT PARTS as disclosed in the above mentioned application for the term of 20 years from the 27th day of May 2013 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 03/08/2021  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 27th day of May 2015 को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 27th day of May 2015 and on the same day in every year thereafter.



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सत्यमेव जयते

क्रमांक : 044139428  
SL No :



भारत सरकार  
GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

पेटेंट सं. / Patent No. : 391963  
आवेदन सं. / Application No. : 2313/CHE/2013  
फाइल करने की तारीख / Date of Filing : 27/05/2013  
पेटेंटी / Patentee : 1.Anuradha Maniyam 2.Subbanarashimhan  
Balasubramanya

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित METHOD, SYSTEM AND APPARATUS FOR GROWING AND EXTRACTING PLANT AND/OR PLANT PARTS FOR ENHANCED BENEFITS नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 27th day of May 2013 से बीस वर्ष की अवधि के लिए पेटेंट अनुदान किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled METHOD, SYSTEM AND APPARATUS FOR GROWING AND EXTRACTING PLANT AND/OR PLANT PARTS FOR ENHANCED BENEFITS as disclosed in the above mentioned application for the term of 20 years from the 27th day of May 2013 in accordance with the provisions of the Patents Act, 1970.



अनुदान की तारीख : 15/03/2022  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 27th day of May 2015 को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 27th day of May 2015 and on the same day in every year thereafter.



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PATENT CERTIFICATE  
(Rule 74 of The Patents Rules)

क्रमांक : 044144759  
SL No :



पेटेंट सं. / Patent No.	:	406599
आवेदन सं. / Application No.	:	2316/CHE/2010
फाइल करने की तारीख / Date of Filing	:	12/08/2010
पेटेंटी / Patentee	:	1.ANURADHA MANIYAM 2.SUBBANARASHIMHAN BALASUBRAMANYA

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित ENHANCING PHYTOCHEMICALS AND NUTRIENTS IN PLANTS AND PLANT PARTS नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अगस्त 2010 के बारहवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled ENHANCING PHYTOCHEMICALS AND NUTRIENTS IN PLANTS AND PLANT PARTS as disclosed in the above mentioned application for the term of 20 years from the 12<sup>th</sup> day of August 2010 in accordance with the provisions of the Patents Act, 1970.



अनुदान की तारीख : 14/09/2022  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, अगस्त 2012 के बारहवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

**Note.** - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 12<sup>th</sup> day of August 2012 and on the same day in every year thereafter.



**INTELLECTUAL  
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PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

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GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 of The Patents Rules)

क्रमांक : 044148490  
SL No :



पेटेंट सं. / Patent No. : 417240  
आवेदन सं. / Application No. : 2314/CHE/2013  
फाइल करने की तारीख / Date of Filing : 27/05/2013  
पेटेंटी / Patentee : 1.Anuradha Maniyam 2.Subbanarashimhan  
Balasubramanya

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित TECHNIQUES FOR ENHANCING NUTRIENTS AND PHYTOCHEMICALS IN A PLANT/PLANT PARTS नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख मई 2013 के सत्ताईसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled TECHNIQUES FOR ENHANCING NUTRIENTS AND PHYTOCHEMICALS IN A PLANT/PLANT PARTS as disclosed in the above mentioned application for the term of 20 years from the 27<sup>th</sup> day of May 2013 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 09/01/2023  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

**टिप्पणी** - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, मई 2015 के सत्ताईसवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

**Note.** - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 27<sup>th</sup> day of May 2015 and on the same day in every year thereafter.

### LIST OF PROJECTS AND GRANTS SECURED BY PADMASHREE INSTITUTE OF MANAGEMENT AND SCIENCES

Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned Rs.	Duration of the project	Name of the Funding Agency	Type (Government/ non-Government)
Cost effective study for micropropagation of <i>Leptadenia reticulata</i> to make it feasible for commercial supply of elite germplasm for farmers.	Dr. Anuradha M.	Department of Biotechnology	2006	7,00,000.00	3 Years	National Medicinal Plants Board - I	Government of India
Isolation and characterisation of pregnane glycoside from <i>Caralluma fimbriata</i>	Dr. Anuradha M.	Department of Biotechnology	2009	40,000.00	6 Months	Sanat Products Pvt. Ltd.,	Non - Government
Identifying the mutagenicity of various commercially available hair dyes and hair colours	Ms. Julia Thomas Ms. Santwana D. Mentor: Ms. Rekha L.	Department of Biotechnology	2011	30,000.00	4.5 Months	VGST, Dept. of IT&BT, GOK	Government of Karnataka
Phytochemical and antibacterial analysis of leaf extracts of <i>Euphorbia neriifolia</i>	Mr. Neeraj Pokharen Mr. Santosh Dahal Mentor: M. Kumara Swamy	Department of Biotechnology	2011	30,000.00	4.5 Months	VGST, Dept. of IT&BT, GOK	Government of Karnataka
Phytochemical and antifungal evaluation of Castor plant leaves ( <i>Ricinus communis L.</i> )-	Ms. Gurmeet Kaur Ms. Geeta Devi Mentor: Dr. Ravikumar H.N.	Department of Biotechnology	2011	30,000.00	4.5 Months	VGST, Dept. of IT&BT, GOK	Government of Karnataka
Evaluation of Biodiesel production from microalgae collected from fresh water habitats	Mr. Sudeep Shah Mentor: Mr. Lokesh P.	Department of Biotechnology	2013	30,000.00	4.5 Months	VGST, Dept. of IT&BT, GOK	Government of Karnataka
Establishment of Biotechnology Finishing School	Dr. Anuradha M.	Department of Biotechnology	2011	1,00,00,000.00	5 Years	KBITS - BTFS	Government of India
"Tissue culture and conventional propagation of <i>Nothapodytes foetida</i> for large-scale supply of quality saplings and comparative study with <i>Camphotheca acuminata</i> "	Dr. Anuradha M.	Department of Biotechnology	2011	2,50,000.00	3 Years	National Medicinal Plants Board - II	Government of India



Endophytic Fungi from <i>Camptotheca Acuminata</i> as a potential source of Camptothecin - An Anticancer Agent	1. Kalisa Amarsingh Bogati 2. Laipubam Bhaskar Sharma	Department of Microbiology	2015	30,000.00	4.5 Months	VGST SPiCE Project - 2014-15	Government of India
VGST - TRIPS Project	1. Kiran Thapa 2. Rajat Revankar	Department of Biotechnology	2015	40,000.00	4.5 Months	VGST - TRIPS Project	Government of India
Application, replication, scientific validation and scale-up of the patented formula that can enhance the micronutrients in the staple food and its utilization towards improved nutritional and financial status of selected semi-rural poor woman of selected revenue villages of Kengeri, Hobli, Bangalore	Dr. Anuradha M.	Department of Biotechnology	2015	13,42,000.00	3 years	Women and Nutrition (DST), GOI	Government of India
Finding an economical and reliable source for production of anti-thrombotic and fibrinolytic agent, its economical purification and testing of efficacy in vitro and <i>in vivo</i> model for thrombolytic therapy	Dr. Sudipta Kumar Mohanty	Department of Biotechnology	2015	4,00,000.00	1 Year	VGST - SMYSR, Government of Karnataka	Government of India
Establishing advanced research and training facility for phytoceuticals	Dr. Anuradha M.	Department of Biotechnology	2015	40,00,000.00	2 Years	VGST, K-FIST Level II, Government of Karnataka	Government of India
National Post-Doctoral fellowship (N-PDF)	Dr. Preenon Bagchi	Science and Engineering Board (SERB)	2016	19,20,000.00	2yars	SERB	Government of India
To Strengthen research facilities in all science departments of the college	Dr. Anuradha M.	Department of Biotechnology	2016	30,00,000.00	3 years	DST, FIST. Government of Karnataka	Government of India
Science & Engineering Research Board (PDF)	Dr Preenon Bagchi	Department of Biotechnology	2016	19,20,000.00	2 Years	Science & Engineering Research Board	Government of India


Biotechnology Skill Enhancement Program (BiSEP)	Dr. Anuradha M.	Department of Nutraceuticals and Food Processing	2017	1,00,00,000.00	5 years	Department of IT-BT, Science and Technology, Government of Karnataka	Government of India & Government of Karnataka
Utilization of silkworm waste for poultry and fish feed production technology optimization and transfer to silk farmers	Dr. Umalatha	Department of Biochemistry	2018	37,00,000.00	3 years	WOS-B, DST, Government of India	Government of India
Bio-prospecting of chicken feather waste as source of bioactive peptides and bioactive compounds: a novel strategy for feather waste management	Dr. Sudipta Kumar Mohanty	Department of Biotechnology	2019	7,500.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
R&D consultant	Dr. Anuradha M.	Department of Food Processing and Nutraceuticals	2020	3,50,000.00	2 Years	N Ranga Rao Sons Pvt Ltd (NESSO)	Non-Government
Extraction of protein from desliked pupae for human consumption	Dr. Anuradha M.& Dr. Umalatha	Department of Food Processing and Nutraceuticals	2021	8,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Optimizing the process parameters for the food packaging material derived from freshwater fish (cycloid) scales	Mrs. Seba T. Jiso Thomas & Dr. Saradha Devi M.S.	Department of Food Processing and Nutraceuticals	2021	8,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Production of bioactive molecules from agro-industrial waste.	Dr. Mallikarjuna Gowda K. G. Dr. Preenon Bagchi	Department of Biochemistry	2022	7,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Isolation and characterization of potential microflora to enhance conversation of kitchen waste to biofertilizer	Dr. Indu B.K. Dr. Sudipta Kumar Mohanty	Department of Biotechnology	2022	10,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Synthesis of biodegradable empty drug capsule shells from fruit waste	Dr. Umalatha Dr. Nagamani J.E.	Department of Biotechnology	2022	10,000.00	4.5 Months	Karnataka State Council for	Government of Karnataka

						Science and Technology	
Designing and development of bio-air purifier using bio waste	Dr. Nethra Subramanya	Department of Biotechnology	2022	10,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
The development of nutraceuticals enriched food product by using processed technologies of Proso-millet for better covid-19 patients.	Ms. Rani S. Byadagi	Department of Food And Nutrition	2022	10,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Natural antioxidants used to reduce rancidity in oils	Mrs. Subbalakshmi G. Dr. Saradha Devi M. S.	Department of Food Technology and Quality Management	2022	10,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka
Development of a multilayer packaging material using jackfruit waste	Dr. Umalatha Ms. Alice Preethi	Department of Food Technology and Quality Management	2022	10,000.00	4.5 Months	Karnataka State Council for Science and Technology	Government of Karnataka





**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

Research Extension activities



विज्ञान एवं प्रौद्योगिकी विभाग  
DEPARTMENT OF  
**SCIENCE & TECHNOLOGY**



**PADMASHREE**  
INSTITUTE OF MANAGEMENT  
AND SCIENCES






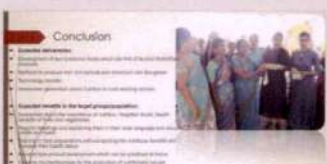

**WOMEN AND NUTRITION  
SCIENCE FOR EQUITY EMPOWERMENT AND DEVELOPMENT (SEED)**

SUPPORTED BY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
GOVERNMENT OF INDIA

PRINCIPAL INVESTIGATOR  
DR ANURADHA M.

website: [www.pims.org.in](http://www.pims.org.in)

Presentation of Women and Nutrition outreach program

<p>1</p> 	<p>2</p> <p>About the project and Objectives</p> 	<p>3</p> <p>Progress of the Project so far</p> 
<p>4</p> <p>Impact</p> 	<p>5</p> <p>Awareness programs</p> 	<p>6</p> <p>Technical back-up support &amp; linkages with nearby institutions/organisations etc.</p> 
<p>Work to be done</p> 	<p>Conclusion</p> 	<p>Thank you</p> 

**List of beneficiaries**

S. No.	Name	Address	Telephone No.
1	Sarojamma	Thindlu	9611447446
2	Rajalakshmi P.S.	Yelanpura	9620301287
3	Chikkadevamma	# 163, 2nd Main road, Saddapaji Temple	7760494499
4	Lalitha	# 3, MMC Lane, 3rd cross, RT street , Bangalore 560053	8105324177
5	Priya	#138, 4th cross, 2nd main, Prakashnagar, Bangalore	805077677
6	Bindhushree	# 12, Jaishree Nagar, Kurubarahalli	9980233942
7	Nirmala	# 34AA, 6th cross, Gayathrinagar, Bangalore -21	9964557884
8	Nagarathnama	Swasanthanagara, Srirampura, Bangalore - 560021	8105839199
9	Mahadeva Shetty	Swasanthanagara, Srirampura, Bangalore - 560021	8105037421
10	L. Soumya	# 50, 25th cross, Kilari Road, Bangalore 560003	9880694925
11	Ninnaggama	-	8970935240
12	Rajjama	-	9844530508
13	Venkateshan	#135/4, 6th Main, 4th cross, Prakash Nagar, Bangalore 560021	7795953120
14	Vinod. K.	#15,25th cross, Kilari road, Bangalore 560053	850097824
15	Nagamma	Nanjappa Block, Kempegowda nagar	9945042335
16	Savithamma	#273/C, 2nd cross, 2nd Main road, Prakashnagar, Bangalore	9036040860
17	Ananad. H.	# 13/3, 2nd Cross, Malleswaram, Bangalore -03	8904113717
18	Lakshmana Murthy V. L.	#12, 21st cross, Malgala Village, 2nd Stage, Bangalore 560072	9035563675
19	Kokila. S.	# 113, 13th cross, Yellanpuram, Bangalore 560021	8792264559
20	Srinivasa. V.	#5/4, Malgala, Nagarbavi 2nd Stage, Bangalore 560072	7259059330
21	Venkataramana Raju. A.	3rd Main, Kilari Road, Bangalore - 560056	9844406362
22	Krishna. H.	# 12, Jaishree Nagar, Kurubarahalli	9980233942
23	Raju	# 3558, 7th cross, Gayithri Nagar	9663771643
24	Ravi Kiran S.	Kurubarahalli	9686001198
25	Shobha N.	# 244, Akkipete Main Road	9964461966
26	Jayalakshmi	# 78, 2nd main road, Ramachandrapuram 560021	9060475529
27	Vijayalakshmi	6020, Devayapark Bangalore	9844986202
28	R. Rangaraju	# 8, Magadi Road, Bangalore 560023	988084620
29	Parvathi. A.	# 8, Magadi Road, Bangalore 560023	9880846270
30	Shobha. P.	Kamashipalya, Vrushabavathi Nagar	810566468
31	Roopa	#3534, 1st Cross, Gayathrinagar, Bangalore 560021	9066666643
32	Shashikala. P.	#11, 2nd cross, Chikpet, Bangalore 560053	7204453495
33	Suma V. Raju	3rd Main, Kilari Road, Bangalore - 560056	9964999644
34	Geetha	# 14/1, 4th main 2nd cross, Maruthi Layout, Bangalore 560021	9880095592
35	Nagaratha K.	# 89, 4th main road, Basaveshwanagar Bangalore 560079	8095948845
36	Ramesha	#293, Bangalore 560021	9036160840
36	Shanthalakshmi	#293, Prakashnagar, Bangalore 560021	9686526347
37	Joythi	-	9900226357

38	Gawramma	#3, NMC lane, 3rd cross, RT Street, Bangalore 560053	8105324177
39	Padmashree. S.	#53, 2nd main road, Ramachandrapuram, Bangalore 21	7829252794
40	Pavitra. S.	#53, 2nd main road, Ramachandrapuram, Bangalore 21	7829252794
41	Lakshamma	Magadi Road, Dasarahalli, 10th Cross	9845780901
42	Shobha Shirali	#49, 5th cross, Srirampura, Bangalore 560029	9611220140
43	Vijayalakshmi	#278/65, 2nd main, 9th cross, Prakashnagar	8147549662
44	Nagaratamma	-	8147549662
45	Radhamma	#53, 2nd main, Ramachandrapuram, Bangalore 560021	7829252794
46	Shivvana	#3470, 7th cross, Gayathrinagar	9739848659
47	Manjula. D.	#278/65, 2nd main, 9th cross, Prakashnagar, Bangalore 29	9900577325
48	Lalithamma	Gayathrinagar	9945067665
49	Praveen Kumar	Chikkabanawara	8431511077
50	Madevi	#3470, 6th cross Gayathrinagar,	8546919819
51	Chandrika	Chikkabanawara, Ragavendra Layout	8431511077
52	G. Manjula	#3443, Gayathri Nahar,	9739070193
53	Bhanu J,	#10/72, Mount Senoria School, FF colony, Laggere Bangalore 560058	7795592604
54	Netra	-	9844986202
55	Savitramma	-	-
56	Manjula	-	7760749982
57	Mangalamma	#3470, 7th cross, Gayathrinagar	9739848659
58	Bhanumathi	Lakshminarayanapura, 5th cross, 5th main	9531631311
59	Gannamurthi	# 40/1, 5th cross, 5th main, LN Puram - 560021	9945095690
60	Seethalakshmi	Lakshminarayanapura, 5th cross, 5th main	9538677704
61	Neela	# 114, 13th cross, LN Puram, Bangalore 560021	9845709620
62	C. Vijayalakshmi	#1016/5, 7th cross, 10th main road prakashnagar, Bangalore	9740848367
63	Barathi K.	# 114, 13th cross, LN Puram, Bangalore 560021	9141602483
64	Bhanu. J.	#10/72 FF Colony Laggerre, Bangalore 560058	7795592604
65	G. Mungala	Gayathri Nagar	9739070193
66	Chandrika	Chikkabanawara, Ragavendra Nagar	8431511077

### Program Summary

Awareness programs on nutrition and health were organized and over 300 beneficiaries attended. The programs included a questionnaire that was developed with the help of nutritionists and dieticians. During the event volunteers collected data on the health status of the beneficiaries. To further understand their health status, Padmashree Diagnostics, Bengaluru conducted tests for haemoglobin content, blood sugar levels, and BMI of the participants. The project aimed to provide these women with the tools and resources they need to enhance their nutritional and financial well-being.

**Photo gallery of Women and Nutrition outreach program**



**Student volunteers collecting the health and nutrition data from the women**



*Anuradha*

**Dr. Anuradha. M**  
Principal  
Padmashree Institute of  
Management & Sciences

TRAINING PROGRAMS ON

UTILIZATION OF SILK WORM PUPAE FOR THE DEVELOPMENT OF FISH AND POULTRY FEED

**PADMASHREE**  
INSTITUTE OF MANAGEMENT  
AND SCIENCES

GOVERNMENT OF INDIA  
DEPARTMENT OF SCIENCE & TECHNOLOGY

**The utilization of silkworm pupae as poultry and fish feed**

ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆ ತ್ಯಾಜ್ಯವನ್ನು ಕೋಳಿ ಮತ್ತು ಮೀನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

Supported by DST-New Delhi  
ಡಿಎಸ್ಟಿ-ನವದೆಹಲಿಯಿಂದ ಬೆಂಬಲಿತವಾಗಿದೆ

Padmashree Institute of Management and Sciences,  
Komraghatta, Kengeri, Bangalore  
ಪದ್ಮಶ್ರೀ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಆಂಡ್ ಸೈನ್ಸಸ್,  
ಕೊಮ್ಮಳಟ್ಟು, ಕೆಂಗೇರಿ, ಬೆಂಗಳೂರು

Presentation in local language (Kannada)

1. ಮೀನು ಮತ್ತು ಕೋಳಿ ಆಹಾರವಾಗಿ ಪ್ಯೂಪೆಗಳನ್ನು ಬಳಸುವುದು

2. ಪರಿಚಯ

3. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

4. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

5. ಪೌಲ್ಟರಿ ಫೀಡ್

6. ಮೀನು ಫೀಡ್

7. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

8. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

9. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

10. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

11. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು

12. ರೇಷ್ಮೆ ಹುಳು ಪ್ಯೂಪೆಗಳನ್ನು ಆಹಾರವಾಗಿ ಬಳಸುವುದು



### PROGRAMS CONDUCTED AT CHIKKAMUNAVADI, RAMANAGARA DISTRICT

Dr. Umalatha conducted an extension training program on December 7, 2020 as a part of DST Project to utilize Silkworm pupae waste for the development of a value-added product for resellers in Ramanagara district. The waste was used to make feed for poultry and fish. The resellers discussed and cleared all doubts about fish feed preparation. The presentation was given in the local language, Kannada and explained the process of making the feed step-by-step, emphasizing the right proportions of ingredients. The fish and poultry feed was made using nutritious silkworm pupae waste.



**Dr. Umalatha explaining the importance of utilization of silkworm pupae waste into value added product**



Training and awareness programs on the preparation of feed from silkworm pupae were conducted for farmers in the villages of Ramanagara district on January 23 and February 8, 2021, in Kalya village. These programs aimed to educate the farmers on how to make nutritious feed for their poultry and fish using silkworm pupae waste.



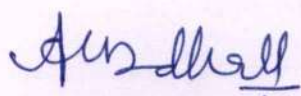
**Dr.Umalatha explaining the importance of utilization of silkworm pupae waste into value added product.**

## Program Summary

### Training programs on Utilization of silk worm pupae for the development of fish and poultry feed:

Dr. Umalatha conducted an extension training program on the utilization of silkworm pupae for the development of a value-added product for resellers in Ramanagara district as part of a DST project. Ramanagara district is a hub for silk reeling, resulting in a large amount of waste generated from silkworm pupae. The aim of the project was to convert this waste into a valuable product like feed for poultry and fish. The training program was held on January 23 and February 8, 2021, in Thagikuppae Villages of Ramanagara district and demonstrated how to prepare the feed, emphasizing the importance of using the right proportions of ingredients. The importance of this training for the resellers of Ramanagara was also discussed. Unscientific disposal of the silkworm pupae waste can cause environmental hazards and a foul odour, leading to a lower market price for the unprocessed pupae. By using the waste to make nutritional feed for fish and poultry, the resellers could improve their income.



  
Dr. Anuradha. M  
Principal  
Padmashree Institute of  
Management & Sciences

## **COLLABORATING INSTITUTES AND INDUSTRIES**

### **Collaboration with Foreign Institutions (MOU)**

1. Oklahoma State University, USA
2. Indiana University of Pennsylvania – under process
3. Harrisburg University – under process

### **Collaboration with Research Institutes (MOU)**

1. GKVK, University of Agricultural Sciences, Bengaluru.
2. Karnataka Science and Technology Academy, Bengaluru
3. Bangalore Bio innovation Centre, Bengaluru
4. Institute of Bioinformatics and Applied Biotechnology, Bengaluru

### **Collaboration with Industries/NGOs (MOU)**

1. Rishi Herbal Technologies Pvt. Ltd., Bengaluru
2. Katra Phytochem India Pvt. Ltd., Bengaluru
3. Biogenero Labs Pvt. Ltd., Bengaluru
4. Natural Remedies Pvt. Ltd., Bengaluru
5. Pelican Biotech and Chemical Labs Pvt. Ltd., Kerala
6. Radiant Research Services Pvt. Ltd., Bengaluru
7. Star Hi Herbs Pvt. Ltd., Bengaluru
8. TUV SUD South Asia Pvt. Ltd., Mumbai
9. Biocon Academy, Bengaluru
10. Kanti Lab Services Pvt. Ltd., Bengaluru
11. Protein Design Pvt. Ltd., Bengaluru
12. Rubizon Pvt. Ltd., Bengaluru
13. Dextrose Technologies Pvt. Ltd., Bengaluru
14. Triphase Pharmaceuticals Pvt. Ltd., Mysore
15. Manipal Natural Pvt. Ltd., Bengaluru
16. Genotypic Technology Pvt. Ltd., Bengaluru
17. Sanathana Yoga Vignana Kendra, Bengaluru
18. Paramount Nutrition's India Pvt. Ltd., Bengaluru
19. Merck Life Science Pvt. Ltd., Mumbai
20. Healthminds Consulting Pvt. Ltd., Bengaluru
21. Samath Global Food Consultants, Hyderabad
22. Padmashree Diagnostic Centre, Bengaluru
23. Trident Diagnostics, Bengaluru

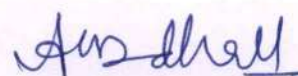
### Consultancies (MOU)

1. N Ranga Rao & sons Pvt. Ltd., Mysore

### Programs conducted in collaboration with Industries and institutions

S. No.	Event Name	Collaboration	Year
1	4th International Conference on Public Health & Neurosciences (ICPMN)	Sarvasumana Association, Bangalore	2017
2	Seminar on Science Vocational Education	Bangalore University, Rajiv Gandhi University of Health Sciences, Healthcare sector skill council, LSSSDC, India Didactics Association	2017
3	5th International Conference on Public Health & Neurosciences (ICPMN)	Sarvasumana Association, Bangalore	2018
4	Train the Trainers	K.Tech., LSSSDC, BiSEP	2018
5	Workshop on Gene cloning	GeNei Labs Pvt ltd	2018
6	Workshop on HPLC	Waters India Pvt ltd	2018
7	Career Preparation	Scital Pvt ltd	2019
8	International Yoga Day	Yoga Parijnana Prathistana & Vibhu Foundation	2019
9	Suicide Prevention Day	Abhaya Hospital	2019
10	Green Sunday : Nature Camp	Yoga Parijnana Prathistana	2019
11	Food Safety Supervisor, foSTaC Training	fssai	2019
12	6th International Conference on Public Health & Neurosciences (ICPMN)	Sarvasumana Association	2019
13	Webinar on Grow your greens	Ktech, LSSSDC, BiSEP	2020
14	Webinar on A Holistic approach to mental wellness	Ktech, LSSSDC, BiSEP	2020
15	Webinar on Intellectual Property Rights and Innovation	Karnataka State Council for science and Technology	2020
16	Webinar on The Fascinating World of Edible Mushrooms	Ktech, BiSEP	2020
17	National webinar on Language and Literature: A Synthesis	Bangalore University English Teachers Association	2020
18	National Webinar and Virtual Workshop on Food Adulteration and Labelling: Consumer Awareness	Netprofan, Ktech, BiSEP, fssai, Afsii	2020
19	Webinar on Sustainable urban waste management	Ktech, BiSEP	2020
20	International Yoga Day	Sarvasumana Association	2020
21	Webinar on Entrepreneurship prospects in Apiculture	Ktech, BiSEP	2020
22	National webinar on Aquaculture a new opportunity for young entrepreneurs	Netprofan, Ktech, BiSEP, DST WOS-B, Nutrition Society of India	2020
23	Webinar on Myths and facts of COVID-19	Trident diagnostic, ACBM	2020

24	World breast feeding week	Institute of Health Management and Research	2020
25	Health and wellness in the new normal	IAPEN	2020
26	Food Safety Supervisor Training	fssai, FoStac	2020
27	National workshop on best practices in SSR preparation	NAAC	2020
28	National Youth day	Disha Bharat	2021
29	The Nutraceutical world	Ktech, BiSEP	2021
30	Food Safety Supervisor Training	fssai, FoStac	2021
31	National webinar on Brain storming on Assessment and Accreditation Framework	NAAC	2021
32	Upskill yourself for your dream career get future ready	Raise to PT	2021
33	FDP on Molecular docking	Vasishth Academy	2021
34	National seminar on scholarship & loan	Briks academy	2021
35	Importance of professional training & readiness for successful industrial placement	Clini India	2021
36	Two-day workshop on Industry Connect-Beginners session	FMBC	2021
37	Lecture on Advances in Science technology	Indian Women scientist Association	2021
38	Ergonomics for Teachers	Federation of Indian Manual Therapists, Phyzioin	2021
39	An awareness program on Intellectual Property Rights	NIPAM	2022
40	National Youth Day	Disha Bharat	2022
41	Food Safety Supervisor Training	fssai, FoStac	2022
42	International Yoga Day	Yoga Parijnana Prathistana & Vibhu Foundation	2022
43	A day with nature	Yoga Parijnana Prathistana & Vibhu Foundation	2022

**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

# WORKSHOP ON **QUALITY CONTROL AND ANALYTICAL TECHNIQUES**



**3RD-5TH JULY  
2019**



**09:30AM  
TO  
04:30 PM**

**DR. SUDIPTA KUMAR MOHANTY**  
HOD, DEPT OF BIOTECHNOLOGY,  
PIMS

**MRS. SUBBALAKSHMI G**  
ASSISTANT PROFESSOR,  
DEPT OF BIOCHEMISTRY, PIMS

**MR. AKSHAY KUMAR**  
DEPT OF FOOD SCIENCE AND  
NUTRITION, PIMS



ORGANISED BY



**PADMASHREE**  
INSTITUTE OF MANAGEMENT  
AND SCIENCES

WEBSITE:  
[WWW.PIMS.ORG.IN](http://WWW.PIMS.ORG.IN)

## QUALITY CONTROL AND ANALYTICALS TECHNIQUES

<b>Date</b>	03.07.2019 to 05.07.2019
<b>Resource Person</b>	Dr. Sudipta Kumar Mohanty, HOD, Dept. of Biotechnology, PIMS Mrs. Subbalakshmi G., Assistant Professor, Dept. of Biochemistry, PIMS Mr. Akshay Kumar, Assistant Professor, Dept. of Food Science and Nutrition, PIMS
<b>Participants</b>	18 students
<b>Event</b>	Workshop on Skill development

### Program schedule

Date	Particulars
03/07/2019	Basic analytical techniques in food analysis
04/07/2019	Spectroscopic techniques
05/07/2019	Basic biochemical techniques

### Resource Person/s



**Name: Mrs. Subbalakshmi G.**

Designation: Assistant Professor,

Affiliation: Padmashree Institute of Management and Sciences.

Phone No: 9538348896

Email Address: shubagsl@gmail.com



**Name: Dr. Sudipta Kumar Mohanty**

Designation: Associate professor,

Affiliation: Padmashree Institute of Management and Sciences,

Phone No: 9741433466

Email Address: academiccellpims@gmail.com

### List of participants

S. No.	Names	S. No.	Names
1	Govindaraju H S	10	Akanksha
2	Amira	11	Priyanka
3	Beulah	12	Shehzan
4	Chethan	13	Shravani
5	Deva varsha	14	Niroja
6	Kavana	15	Tanushree
7	Komala	16	Teja
8	Maneesha	17	Yedam
9	Nandini	18	Sneha



**Photo gallery: Quality Control and Analytical Techniques**









1/12/2019

**Feedback Form:**  
**WORKSHOP ON QUALITY CONTROL AND ANALYTICAL TECHNIQUES**  
 DATE: 01/01/2019- 05/01/2019, TIME: 9.30 a.m - 4.30 p.m.  
 Venue: Padmasree Institute of Management and Sciences, Kottagatta, Kengeri, Bangalore  
 Name of the Participant: Teacher NS Bhat  
 Phone number and Email ID: 930103367 Teacher ns@pimsg.com  
 Course and semester: \_\_\_\_\_

1-Strongly disagree 2-Disagree 3-Moderate agree 4-Agree 5-Strongly agree

Sl NO	Organization and impact of the workshop	1	2	3	4	5
1	Well Organized					✓
2	Objectives and contents of the workshop were relevant					✓
3	Time allocation was right					✓
4	Enhancement of knowledge					✓
5	Presentations and information given were useful					✓
6	Questions were adequately answered					✓
7	Overall performance of the workshop					✓

What did you most appreciate/enjoy/like best about the course? Any suggestions for improvement?

\_\_\_\_\_

Signature of the participant: [Signature]

**Feedback Form:**  
**WORKSHOP ON QUALITY CONTROL AND ANALYTICAL TECHNIQUES**  
 DATE: 01/01/2019- 05/01/2019, TIME: 9.30 a.m - 4.30 p.m.  
 Venue: Padmasree Institute of Management and Sciences, Kottagatta, Kengeri, Bangalore  
 Name of the Participant: [Signature]  
 Phone number and Email ID: [Signature]  
 Course and semester: \_\_\_\_\_

1-Strongly disagree 2-Disagree 3-Moderate agree 4-Agree 5-Strongly agree

Sl NO	Organization and impact of the workshop	1	2	3	4	5
1	Well Organized					✓
2	Objectives and contents of the workshop were relevant					✓
3	Time allocation was right					✓
4	Enhancement of knowledge					✓
5	Presentations and information given were useful					✓
6	Questions were adequately answered					✓
7	Overall performance of the workshop					✓

What did you most appreciate/enjoy/like best about the course? Any suggestions for improvement?

Mostly experts were more knowledgeable and it was a great opportunity to learn about their experience. The food was very nice also. Finally, I thank all the lecturers and non-teaching staff for their cooperation.

Thank you  
Signature of the participant: [Signature]

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**Feedback Form:**  
**WORKSHOP ON QUALITY CONTROL AND ANALYTICAL TECHNIQUES**  
 DATE: 01/01/2019- 05/01/2019, TIME: 9.30 a.m - 4.30 p.m.  
 Venue: Padmasree Institute of Management and Sciences, Kottagatta, Kengeri, Bangalore  
 Name of the Participant: [Signature]  
 Phone number and Email ID: [Signature]  
 Course and semester: [Signature]

1-Strongly disagree 2-Disagree 3-Moderate agree 4-Agree 5-Strongly agree

Sl NO	Organization and impact of the workshop	1	2	3	4	5
1	Well Organized					✓
2	Objectives and contents of the workshop were relevant					✓
3	Time allocation was right					✓
4	Enhancement of knowledge					✓
5	Presentations and information given were useful					✓
6	Questions were adequately answered					✓
7	Overall performance of the workshop					✓

What did you most appreciate/enjoy/like best about the course? Any suggestions for improvement?

Very informative & useful course

Signature of the participant: [Signature]

**Feedback Form:**  
**WORKSHOP ON QUALITY CONTROL AND ANALYTICAL TECHNIQUES**  
 DATE: 01/01/2019- 05/01/2019, TIME: 9.30 a.m - 4.30 p.m.  
 Venue: Padmasree Institute of Management and Sciences, Kottagatta, Kengeri, Bangalore  
 Name of the Participant: NIRJANA P  
 Phone number and Email ID: 9013350501, nirjanap@pimsg.com  
 Course and semester: BSI VI

1-Strongly disagree 2-Disagree 3-Moderate agree 4-Agree 5-Strongly agree

Sl NO	Organization and impact of the workshop	1	2	3	4	5
1	Well Organized					✓
2	Objectives and contents of the workshop were relevant					✓
3	Time allocation was right					✓
4	Enhancement of knowledge					✓
5	Presentations and information given were useful					✓
6	Questions were adequately answered					✓
7	Overall performance of the workshop					✓

What did you most appreciate/enjoy/like best about the course? Any suggestions for improvement?

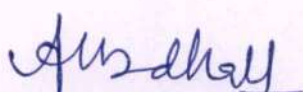
There was lots of information given regarding the topics. I found a lot of information in the CC not necessary topics various and techniques were explained.

Signature of the participant: [Signature]

## Program Summary

Padmashree Institute of Management and Sciences organized a three-day workshop on quality control and analytical methods at Padmashree Campus from 3rd - 5th July 2019. The workshop was inaugurated by Dr. Anuradha, Principal, PIMS. 18 students were participated in the workshop to learn laboratory method validation techniques. Dr. Sudipta Kumar Mohanty, Assistant Professor, PIMS, Mr. Akshay Kumar, Assistant Professor, PIMS, and Ms. Subbalakshmi, Assistant Professor, PIMS were assigned to guide the students in the workshop. The participants acquired theoretical as well as practical knowledge about several analytical techniques during the training program and will help in their research projects. The participated students were trained with analysis of food adulterants, quantification hardness of water, sensory evaluation, estimation of density, crude ash, moisture content and pH of various food samples. The students gained the experience of handling HPLC, Spectrophotometer, cooling centrifuge, pH meter, muffle furnace, densitometer etc. As per the feedback received from the participants, the workshop was much useful for them to gain valuable knowledge and analytical skills in food validation techniques.



  
Dr. Anuradha. M  
Principal  
Padmashree Institute of  
Management & Sciences

**Kuvempu**



**University**

From:

Dr. Raja Naika

Professor

Dept of P.G studies and Research in Botany

Jnana Shayadri, Shankaraghatta-577451

Shimoga Dist, Karnataka, India.

To,

Principal

Padmashree Campus,

Tavarekere-Kengeri Road, Kommagatta, Kengeri,

Bengaluru, Karnataka-560060

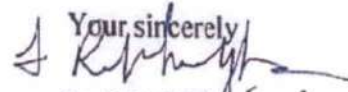
Dear Madam,

**Sub: regarding permission to visit your institute.**

With reference to the above, my student Manjula T working under my guidance for Ph.D, as part of her research work. She need to do nutritional analysis of leaf and fruit samples. Kindly provide and cooperate the necessary help during her visit to your center.

Date: 28-1-2020

Place: shankaraghatta

Your sincerely  
  
Prof. RajNaika

To  
The Vice Chancellor  
PES University

08.11.2021

Through,  
Dean-Research, PESU

Respected Sir,

Sub: Approval of external Co-guide to Mrs. Subbalakshmi G

I wish to bring to your kind notice that the following is a doctoral committee formed to my Ph D candidate Mrs. Subbalakshmi G registered for part time PhD in June 2021

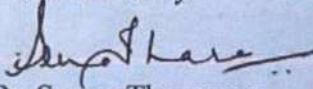
Chairperson: Dean of Research- Dr. Sudarshan T S B  
Member Secretary/ Research Supervisor: Dr. Seema Tharannum  
Member: Dr. Shanti K N  
Member: Dr. Leela V

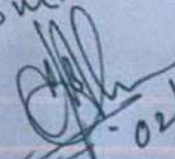
Ms. Subbalakshmi G, is a faculty in Padmashree Institute of Management and Sciences (PIMS) has registered for part time Ph D and will be doing major part of her research work in her workplace and Dr. Anuradha, Principal at PIMS has additional expertise which may help enhance Ms. Subbalakshmi'S research. Hence request you to kindly permit Dr. Anuradha M, Principal-PIMS to be the external co supervisor.

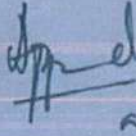
Hence I am attaching Dr. Anuradha's resume for your kind consideration and I request you to kindly do the needful.


Thanking you

Yours Sincerely

  
Dr. Seema Tharannum

Recommended  
  
02/02/2022

  
as per univ guidelines

  
24/02/2022



**From**

28/12/2022

Mrs. Prabhavati S. Erimani,  
Assistant Professor,  
PIMS, Bangalore -560060.

**To**

The Principal,  
Padmashree Institute of Management and Sciences  
Kengeri, Bangalore -560060.

**Through:** Research supervisor, Department of studies in Food Technology, Davangere University, Davanagere.

**Sub:** Permission to conduct some my Ph. D. work in this esteemed institution.

**Respected Madam,**

With reference to the subject cited above, I have registered and working for my Ph. D. in Food Technology (from 2021-22) as part time scholar, in the Department of Food Technology, Davangere University, under the guidance of Dr. Sadashiv S. O. Assistant Professor, Department of Studies in Food Technology, Davangere University Davangere.

I have successfully completed my Ph. D. course work (Registration No: 21PHFT06). Presently as a part of my research work, I wish to do the laboratory analysis which involves moisture analysis and bulk density measurement. Hence, I kindly request you to permit to do the laboratory analysis in this esteemed institution.

Thanking You,  
Warm Regards

Yours faithfully

  
Prabhavati S Erimani

*Respected madam,  
Kindly do the needful*

  
Dr. SADASHIV S. O. M. Sc., M. Phil., Ph. D.  
Assistant Professor  
Department of Food Technology  
Davangere University, Shivagangotri  
Davangere-577007, Karnataka, India.

  
Principal  
Padmashree Institute of  
Management & Sciences  
Bangalore

Date: 07-03-2022

To  
THE PRINCIPAL,  
Padmashree Institute of Management and Sciences  
Kengeri, Bangalore

From  
**Mrs. Hemamalini Subramanyam**  
Research Scholar (Reg.No: PhDBOT/05/2019-2020)  
Department of Studies in Botany  
Davangere University, Shivagangotri  
Davangere- 577007

Dear Madam,

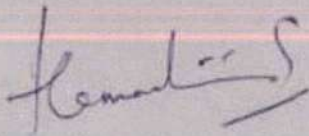
Sub: Permission to conduct my PhD research work in your esteemed institution

I have registered for my PhD in Botany in 2019-2020 under the guidance of Dr. Govindappa, Professor, Department of studies in Botany, Davangere University, Davangere.

I have successfully completed my coursework. I wish to do the required lab work which involves fungal endophytes and subsequent protein work in your esteemed institution.

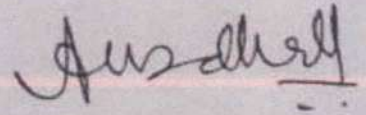
I request you to kindly grant me permission for the same.

Thank you

  
Regards

Hemamalini Subramanyam

Rs 5000/- Per month



Approval J.H.

Padmashree Institute of Management and Sciences

149. Kommaghatta, Kengeri, Bengaluru

Invoice

Invoice No: 1 State: Karnataka  
Date of Issue: 27.05.2019 State Code: 29

Bill to Party		Ship to Party	
Name: N. Ranga Rao & Sons Pvt. Ltd.		Name: N. Ranga Rao & Sons Pvt. Ltd.	
Address: #1553 Vanivilasa Road, MYSORE - 570 004		Address: #1553 Vanivilasa Road, MYSORE - 570 004	
GSTIN/UIN: 29AAECN8103G1ZH		GSTIN: 29AAECN8103G1ZH	
State: Karnataka	Code 29	State: Karnataka	Code 29

Sr.No	Service Description	SAC	Value of supply
1	R&D services	998111	100000
TOTAL			100000

Total Invoice Amount Rupees one lakh only)

**Bank Details**  
Name of the account holder: Padmashree Institute of Management and Sciences  
Account number: 842310210000001  
Bank details: Bank of India, RPC layout, Vijayanagar  
Type of account: SB  
IFSC Code BKID0008423

Certified that the particulars given above are true and correct  
For Padmashree Institute of Management and Sciences

*[Signature]*

Authorised Signatory





सत्यमेव जयते

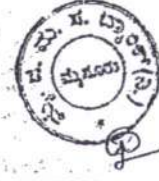
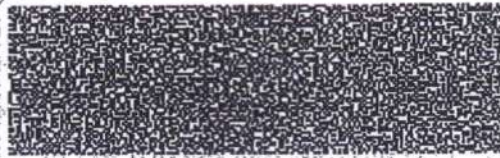
INDIA NON JUDICIAL

Government of Karnataka

Rs. 100

e-Stamp

**Certificate No.** : IN-KA14812721219526R  
**Certificate Issued Date** : 27-May-2019 11:02 AM  
**Account Reference** : NONACC (BK)/ kakscub08/ MYSORE SOUTH4/ KA-MY  
**Unique Doc. Reference** : SUBIN-KAKAKSCUB0858592193633113R  
**Purchased by** : N RANGA RAO AND SONS PVT LTD  
**Description of Document** : Article 12 Bond  
**Description** : AGREEMENT  
**Consideration Price (Rs.)** : 0  
 (Zero)  
**First Party** : N RANGA RAO AND SONS PVT LTD  
**Second Party** : PADMASHREE INSTITUTE OF MANAGEMENT AND SCIENCES  
**Stamp Duty Paid By** : N RANGA RAO AND SONS PVT LTD  
**Stamp Duty Amount(Rs.)** : 100  
 (One Hundred only)  
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RESEARCH AND DEVELOPMENT AGREEMENT

This Research & Development Agreement ("Agreement") is made and executed on 27<sup>th</sup> May 2019 ("Effective Date") by and between:

1. N Ranga Rao & Sons Private Limited, a company incorporated under the Companies Act, 2013 and having its registered office at 1553, Vanivilasa Road, Mysore 570004 (hereinafter referred

*[Signature]*  
 N RANGA RAO & SONS PRIVATE LIMITED  
 Vani Vilas Road  
 Mysore-570004

*[Signature]*  
 PADMASHREE INSTITUTE OF MANAGEMENT AND SCIENCES

*[Signature]*  
 Justice B.R

Statutory Alert:

1. The authenticity of this Stamp Certificate should be verified at [www.shclestamp.com](http://www.shclestamp.com) and discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

to as the "Company", which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include its successors and assigns) of the FIRST PART

AND

2. Padmashree Institute of Management and Sciences, Bengaluru, affiliated to Bangalore University educational and research institute registered under the Padmashree Charitable Trust having its principal registered office address at [149, Kommaghatta, Kengeri, Bengaluru, represented by its authorized signatories Dr. M. Anuradha and Dr. Indu B.K. (hereinafter referred to as "Consultant", which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include its successors-in-interest and permitted assigns) of the SECOND PART

The Company and the Consultant shall hereinafter be collectively referred to as "Parties" and individually as "Party".

WHEREAS

- A. The Company is inter alia engaged in the business of manufacturing and selling incense sticks and prayer products ("Business") and is desirous of availing certain research and development services in connection with its Business from persons skilled in the field of food and plant sciences.
- B. The Consultant is an agency, which specializes in implementing technology to create innovative food segments, and comprises of a team of experts in the field of food and plant sciences. The Consultant has represented to the Company that it has the requisite expertise and manpower to render research and development services, the details of which are more specifically outlined in Annexure A to this Agreement ("R&D Services").
- C. Relying on the representations of the Consultant, the Company hereby agrees to engage the Consultant, and the Consultant hereby agrees to render the R&D Services in accordance with the terms and conditions hereinafter set forth in this Agreement.

NOW THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATIONS

In this Agreement, including in the Recitals hereof, the following words, expressions and abbreviations shall have the following meanings, unless the context otherwise requires:

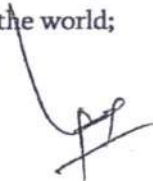
- 1.1. "Agreement" shall mean this Research and Development Services Agreement and any Annexures hereto, whether attached or incorporated by reference;



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- 1.2. "Applicable Law" shall mean any statute, law, regulation, ordinance, rule, judgment, notification, rule of common law, Order, decree, bye-law, government approval, directive, guideline, requirement or other governmental restriction, or any similar form of decision of, or determination by, or any interpretation, policy or administration, having the force of law of any of the foregoing, by any Governmental Authority (as defined below) having jurisdiction over the matter in question, whether in effect as of the date of this Agreement or thereafter;
- 1.3. "Business Day" shall mean any day (other than Saturday or Sunday);
- 1.4. "Confidential Information" shall mean any information disclosed by the Company including but is not limited to, business information, business plans, financial statements, specifications, research, trade secrets, discoveries, ideas, know-how, designs, drawings, flow charts, data, reports, programs, marketing plans, user information, content, works, media, budget figures, recipes, formulas, study reports, test reports, toxicity data and other technical, financial and business information concerning the Company and or its Business, which may be disclosed to the Consultant for the purposes of rendering R&D Services under this Agreement.
- 1.5. "Force Majeure" shall mean an act of God, war, civil disturbance, strike, lockout, act of terrorism, flood, fire, explosion or legislation or restriction by any Governmental Authority (as defined below), or any other similar circumstance beyond the control of any Party, which has the effect of wholly or partially suspending the obligations hereunder, of the Party concerned during the continuance and to the extent of such prevention, interruption or hindrance;
- 1.6. "Governmental Authority" shall mean any national, state, provincial, local or similar government, governmental, regulatory or administrative authority, branch, agency, any statutory body or commission or any non-governmental regulatory or administrative authority, body or other organization to the extent that the rules, regulations and standards, requirements, procedures or Orders of such authority, body or other organization have the force of Applicable Law or any court, tribunal, arbitral or judicial body, or any stock exchange of the India or any other country;
- 1.7. "Intellectual Property" or "Intellectual Property Rights" shall mean any and all trademarks and services marks (whether or not registered), copyrights, design rights (whether or not registered), moral rights, patents, performance rights, database rights, internet, WAP and other new media rights, names, logos and codes, publicity rights, and any and all other intellectual property and proprietary rights of any nature whatsoever that subsist, or may subsist, or be capable of registration, in each case, in relation to the work done by the Consultant as a part of its R&D Services or any part thereof and which exists, or may exist around the world;




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*Aus shall*

*Indu B.K*

- 1.8. "Products" shall mean and include the products developed by the Consultant pursuant to the R&D Services rendered under this Agreement including but not limited to (a) ready to use theerthams; and (b) panchaamrudham.

## 2. SCOPE OF ENGAGEMENT

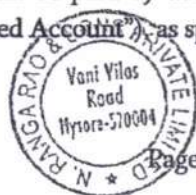
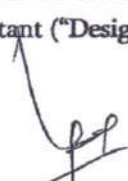
- 2.1. With effect from the Effective Date, the Company hereby appoints the Consultant on a non-exclusive basis to provide the Company, the R&D Services as specified in Annexure A to this Agreement.
- 2.2. The Parties agree that the scope of R&D Services and the specifications of the Products to be developed may be varied from time to time during the Term of this Agreement, as may be mutually agreed to between the Parties in writing from time to time.

## 3. TERM OF PROJECT

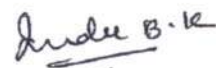
- 3.1. This Agreement shall come into force with effect from the Effective Date, and unless otherwise terminated by the Parties pursuant to Clause 12 of this Agreement (Termination), it shall to remain in existence for a period of twenty four months. ("Term").
- 3.2. Unless this Agreement is terminated pursuant to Clause 12 of this Agreement (Termination), the Company shall notify the Consultant at least Sixty days prior to the expiration of the Term as to whether the Company desires to renew this Agreement ("Renewal Term") and the terms and conditions pursuant to which such renewal shall take effect. If the Parties are unable to agree on the terms and conditions of any renewal, then the Agreement shall terminate upon expiry of the Term, without any further action required to be taken by either Party.

## 4. CONSIDERATION

- 4.1. In consideration of the Consultant providing R&D Services to the Company and developing the Products, the Company agrees to pay the Consultant, sufficient and valid consideration, the details of which are outlined in Annexure B to this Agreement ("Consideration"). The Consideration shall be payable upon an invoice being raised by the Consultant on the Company and in accordance with the payment terms stipulated in Annexure B to this Agreement.
- 4.2. The Consideration shall be paid by the Company to the designated bank account of the Consultant ("~~Designated Account~~") as specified in Annexure B to this Agreement.



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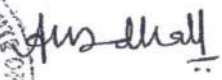
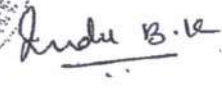
4.3. All payments made to the Consultant under this Agreement shall be net of all applicable taxes, excluding Goods and Services Tax (GST).

**5. REPRESENTATIONS, WARRANTIES AND COVENANTS**

5.1. The Consultant hereby represents, warrants and covenants to the Company that:

- (a) it has the facilities, resources, skilled personnel and cutting-edge technology required for rendering the R&D Services and developing the Products in a timely and efficient manner;
- (b) it has the scientific, technological and technical expertise, and the existing know-how required to perform and shall perform such R&D Services in a competent and professional manner;
- (c) it shall strictly adhere to the confidentiality obligations as outlined in Clause 8 of this Agreement and hold all Confidential Information made available by the Company or any such information which the Consultant may have access to in course of providing the R&D Services under this Agreement in strict confidence;
- (d) it shall strictly comply with all Applicable Law, now or hereafter in effect, relating to their performance of this Agreement and maintain in full force and effect all licenses, permits, authorizations, registrations and qualification from any authority to the extent necessary to perform its obligations hereunder;
- (e) this Agreement does not conflict with any of the Consultant's existing agreements;
- (f) all works submitted/delivered by the Consultant to the Company in relation to the R&D Services and development of the Products ("Works") that contribute towards the concerned novelty and idea, are and will be, the Consultant's original work and the same does not and shall not, infringe the copyright, trademark or other Intellectual Property Rights, privacy rights, or any other legal or moral rights of any third party;
- (g) all information contained in the Consultant's Works, including, but not limited to, the Reports and Studies undertaken, is not false, plagiarized, misleading, incomprehensible, inadequate, inconsistent, inaccurate or unknowingly incorrect;
- (h) for the purpose of this Agreement, the products are developed in accordance with ancient Hindu traditions
- (i) it shall be liable for all performance deficiencies such as a lack of technical feasibility or usefulness of the developed Products, if they were aware of the same or unaware of the same due to negligence;



- (j) it shall not be entitled to commission any third party with the implementation of partial tasks without the prior written permission of the Company;
- (k) it shall deploy its employees/personnel who have the technical expertise and knowledge in performing the R&D Services as envisaged under this Agreement; and
- (l) it will use its best endeavours to promote the interests of the Company, and perform the R&D Services to the best of its ability.

5.2. Each Party represents and warrants to the other Party that:

- (a) They are qualified and registered to transact business in all locations where the performance of their respective obligations hereunder would require such qualification; and
- (b) They have all the necessary rights, powers and authority to enter into and perform this Agreement and the execution, delivery and performance of this Agreement by the Parties have been duly authorized by all necessary corporate action.

6. **CONSULTANT'S OBLIGATIONS AND DELIVERABLES**

6.1. In addition to the obligations outlined in Annexure A to this Agreement, the Consultant shall have the following obligations:

- (a) To maintain the facilities, resources, skilled personnel and cutting-edge technology required for rendering the R&D Services and developing the Products in a timely and efficient manner;
- (b) To provide the R&D Services and carry out its obligations under this Agreement to the best of its ability and in a timely an efficient manner; and
- (c) To provide any information sought from it under this Agreement to the Company in the manner prescribed by the Company.

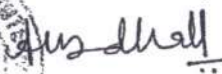
6.2. The following shall be the deliverables of the Consultant:

- (a) Share the detailed design of the Products and related standard operative procedure with the Company within the timelines prescribed in Annexure A to this Agreement. The standard operative procedure document must detail all the steps, processes, details of the hindu traditions followed and procedures involved in the development of the products.



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- (b) Conduct relevant '*Toxicity Studies*' on Products and accordingly share reports on the same, with the Company. If required, such studies may be outsourced by the Company to laboratories accredited by the National Board of Accreditation (NBA) or other authorized bodies;
- (c) Conduct relevant in-vitro '*Efficacy Studies*' on the Products and accordingly share reports on the same, with the Company. Such studies shall consist of anti-oxidant assays, anti-microbial assays, enzyme assays, and biochemical assays, as and if required. However, animal or animal cell culture studies shall not form a part of these '*Efficacy Studies*';
- (d) Conduct relevant '*Quality Studies*' on the Products and accordingly share reports on the same, with the Company. The quality of the Products would be tested on their microbial load, heavy metal load, mineral content, TDS, pH, moisture, proximate analysis, active principle (for required Products), ash content (for solid and semi-solid Products), bulk density (for solid Products), and other such factors laid down specifically under Annexure A of this Agreement. Further, an appropriate Certificate of Analysis (COA) of the Products shall be forwarded to the Company;
- (e) Conduct relevant '*Shelf Life Studies*' on the Products and accordingly share reports on the same, with the Company. These tests must ensure that the Products' properties, quality, and safety be maintained throughout its Shelf-life and stated Storage conditions;
- (f) Perform accelerated Stability tests on the Products;
- (g) The tests and studies referred to in clauses (b) to (f) above, shall be carried out by the Consultant only after the Consultant has received prior written consent for the same from the Company. Further, all the costs for the tests and studies mentioned above in clause (b) to (f) shall have to be pre-approved by the Consultant from the Company.
- (h) The tests and studies mentioned above in clauses (b) to (f) shall be performed by the Consultant in an accredited lab to be selected by the Company.
- (i) Submit relevant '*Literature*' on the ingredients and the traditional usages of the developed Products, to the Company;
- (j) Send monthly reports on developments within the Project to the Company, and on the successful completion of the Project, a dossier along with procedure and product data sheets, shall be submitted to the Company;
- (k) Convene a meeting with the Company's Representative(s), once every two weeks after the commencement of R&D Services in order to allow the Company to evaluate the efficiency of the provided R&D Services and discuss the future plan of action.

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- (l) Provide technical inputs and other such inputs required, for the Company to obtain a Foods Safety and Standards Authority of India (FSSAI) license in these developed Products.
- (m) Ensure that it achieves the goals/targets with regard to the R&D Services as set out in Annexure A to this Agreement.
- (n) assist the Company's personnel with any and all queries regarding the R&D Services provided by the Consultant;
- (o) deliver the Services in accordance with the service levels and the timelines as indicated by the Company from time to time;
- (p) provide e-mail and telephone support to the Company's staff during normal working hours on Business Days, for any critical escalation during the term of this Agreement;
- (q) deliver such R&D Services in a manner as specifically outlined in Annexure A to this Agreement; and
- (r) Not subcontract any part of the R&D Services assigned to the Consultant by Company in this Agreement, to any third party without obtaining prior written approval of the Company.

## 7. INTELLECTUAL PROPERTY RIGHTS

- 7.1. The Intellectual Property Rights in and to the Works created/developed by the Consultant as part of its R&D Services under the Agreement shall solely vest with the Company. Nothing contained in this Agreement constitutes or implies grant of any form of license to the Consultant to develop, use, sell or sub-license the Works, Products of the Company.
- 7.2. The Consultant, shall at its own expense, defend, or at its option settle any action brought against the Company which consists of a claim that the use of such Intellectual Property within the scope of any activity contemplated under this Agreement infringes any Intellectual Property right belonging to a third party, and the Consultant agrees to be responsible for and indemnify the Company against all losses, costs (including reasonable legal costs), damages, liabilities, claims and expenses suffered or incurred by the Company in connection with any such claim.



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- 7.3. The Consultant represents that the performance of its R&D Services under this Agreement will not breach any assignment of works, proprietary information, confidentiality or similar agreement with any other third party. The Consultant represents that it shall not bring or use in the performance of its R&D Services for the Company any documents or materials or intangibles of any third party that are not generally available to the public or have not been legally transferred to the Company.
- 7.4. No individuals or entities other than the Consultant and the Consultant's employees and independent contractors (who shall be appointed subject to the prior written consent of the Company) shall undertake any work in connection with this Agreement. The Consultant shall obtain and maintain in effect written agreements with each of its employees/personnel/sub-contractors who participate in any of the Consultant's R&D Services hereunder. Such agreements shall contain terms and conditions sufficient for the Consultant to comply with this Clause and Clause 8 (Confidentiality Obligations).
- 7.5. All intellectual property rights existing prior to the Agreement shall continue to vest with the owner/proprietor of such intellectual property rights.
- 7.6. The Parties recognize that all third-party intellectual property rights are the exclusive property of their respective owners. The Consultant shall inform the Company of any third-party intellectual property rights that may be required to perform the R&D Services, required under the terms of this Agreement. Under such circumstances, the Consultant shall procure appropriate licenses to use such third-party Intellectual Property Rights from the owner of such third-party Intellectual Property Rights.

8. CONFIDENTIALITY OBLIGATIONS

- 8.1. If and when required, both parties may be given access to each other's Confidential Information in connection with this Agreement. For the purpose of this Agreement, the party receiving such information is determined to be the "Receiving Party" while the party that discloses such information is determined to be the "Disclosing Party".
- 8.2. The Receiving Party acknowledges that the Confidential Information is received on a confidential basis, and that the Disclosing Party shall remain the exclusive owner of its Confidential Information and of Intellectual Property Rights contained therein. No license or conveyance of any such rights to the Receiving Party is granted or implied under this Agreement.



*Asst. Mgr.*  
*Indu B. K.*

- 8.3. The Consultant agrees and confirms that it shall not use, share and reveal the Company's Confidential Information for any purpose other than as envisaged under this Agreement and provide it only on a need to know basis for the sole purpose of the provision of the R&D Services. The Receiving Party will ensure that all the parties to whom information has been disclosed pursuant to this Agreement have signed appropriate confidentiality and non-disclosure agreements (with terms no less onerous than terms appearing in this Agreement) to ensure the Disclosing Party's Confidential Information disclosed under this Agreement is protected from unauthorized use and disclosure.
- 8.4. The Receiving Party shall:
- (a) take all steps as may be reasonably necessary to protect the integrity of the Confidential Information and to ensure against any unauthorized disclosure thereof;
  - (b) promptly inform the Disclosing Party of any potential or accidental disclosure of the Confidential Information and take all steps to retrieve and protect the said Confidential Information;
  - (c) use the Confidential Information only for the purpose for which it was provided and not profit from the same in any unauthorized manner to the exclusion of the Disclosing Party;
  - (d) destroy or return all the Confidential Information in its possession to the Disclosing Party either during or after the termination of this Agreement as requested by the Disclosing Party;
  - (e) not retain copies, notes or excerpts of such Confidential Information upon destroying such Confidential Information; and
  - (f) provide a written confirmation to the Disclosing Party once the requested Confidential Information is destroyed from his database.
- 8.5. The Parties acknowledges that in the event of any breach or threatened breach of this Clause by the Receiving Party, monetary damages may not be an adequate remedy, and therefore, the Disclosing Party shall be entitled to injunctive relief to restrain the Receiving Party from any such breach, actual or threatened.
- 8.6. The confidentiality obligations stipulated under this Clause shall survive the termination of the Agreement.
- 8.7. This Clause will not apply to Confidential Information to the extent that:



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- (a) such Confidential Information has been placed in the public domain other than through the fault of the Receiving Party;
- (b) has already been in possession of the Receiving Party or its agents before the date of receipt from Disclosing Party;
- (c) has been received by the Receiving Party from a third party who has lawfully acquired it and who is under no obligation restricting its disclosure;
- (d) is independently developed by the Receiving Party or its agents without reference to or use of Data or Confidential Information; and
- (e) the Disclosing Party has approved in writing the disclosure of the Confidential Information.

9. NON-SOLICITATION

9.1. During the Term of this Agreement and for a period of 12 (Twelve) months after the date of termination of the Consultant's engagement with Company, the Consultant shall not: (a) endeavor to entice away from the Company, any employee, consultant or any freelancer engaged by Company, by terminating their contract or leaving their employment with Company as the case may be; and/or (b) assist any person to do any of the acts referred to in clause (a) above.

10. INDEMNIFICATION

10.1. The Consultant shall indemnify, defend and hold harmless the Company its directors, employees, affiliates against any and all claims, liabilities, actions, losses, judgments, payments made in settlements, suits, proceedings, demands, damages, costs and expenses including reasonable attorney's fees, resulting from/relating to:

- (a) any actual or alleged breach of the Consultant's representations, warranties, or obligations set forth in this Agreement;
- (b) any act of wilful misconduct or gross negligence by the Consultant during the performance of its duties under this Agreement that is detrimental to the pecuniary interests, reputation or goodwill of the Company;
- (c) misappropriation by the Consultant of any property of the Company or the commission of an act or acts by the Consultant constituting fraud against the Company;
- (d) any infringement of Intellectual Property Rights or other rights of authorized third-parties by the Consultant, while providing R&D Services under this Agreement;
- (e) any deficiency within the developed Products;

*[Handwritten signature]*



*[Handwritten signature]*

*[Handwritten signature]*

- (f) any failure to provide or delay in the provision of, any of the R&D Services to the Company even if such failure or delay is directly or is contributed to directly by any failure of a third party provider to provide an element of the R&D Services; or
- (g) any act, commission or omission that is in violation of any of the terms and conditions of this Agreement or Applicable Law.

**11. LIMITATION OF LIABILITY**

- 11.1. The Consultant agrees that the Company shall not be liable for any indirect, incidental, contingent, consequential, ancillary, punitive, exemplary, special or similar damages, including but not limited to, loss of profits or loss of data, whether incurred as a result of negligence or otherwise. Such liability shall also not arise even if foreseeable or if the Company has been advised of the possibility of such losses.
- 11.2. Nothing in this Agreement shall be taken to exclude or limit the Consultant's liability under or arising out of this Agreement whether based in contract, tort (including negligence and strict liability) or otherwise to the extent that such liability cannot be excluded by law.

**12. TERMINATION & CONSEQUENCES OF TERMINATION**

The Company shall have the right to terminate this Agreement without cause by providing not less than 1 (one) month's prior written notice to the Consultant.

- 12.1. In the event that the Consultant commits a material breach of this Agreement which is incapable of remedy or which in the case of a breach capable of remedy shall not have been remedied within 7 (Seven) days of the receipt of a written notice from the Company identifying the breach and requiring its remedy, the Company reserves the right to terminate the Agreement immediately after the expiry of the above stipulated 7 (Seven) day time period.
- 12.2. The Company shall be entitled to terminate the Agreement forthwith in the event: (i) the Consultant commits an act of wilful misconduct or gross negligence during the performance of its duties under this Agreement that is detrimental to the pecuniary interests, reputation or goodwill of the Company; (ii) there is any misappropriation by the Consultant of property of the Company or the commission of an act or acts by the Consultant constituting fraud against the Company; and/or (iii) breach of confidentiality obligations by the Consultant under this Agreement. In the event the Company terminates the Agreement pursuant to the grounds stipulated in Clause 12.2 and Clause 12.3, the Company shall be entitled to full refund of the Consideration that has been paid to the Consultant till the date of such termination.



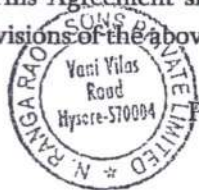
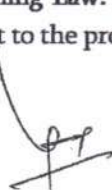
- 12.3. Upon termination of this Agreement, any rights or authority granted by either Party to the other Party shall terminate with immediate effect and all payments accrued before or on the effective date of termination will become immediately due and payable.
- 12.4. Within 5 (Five) Business Days after the termination of this Agreement, upon the request of the Disclosing Party, the Receiving Party will return or destroy, at the option of the Disclosing Party, all Confidential Information of the Disclosing Party.
- 12.5. The accrued rights of the Parties as at termination or the continuation after termination of any provision expressly stated to survive or implicitly surviving termination shall not be affected or prejudiced in any manner.

### 13. DISPUTE RESOLUTION

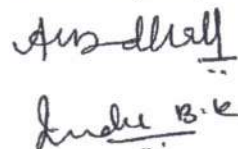
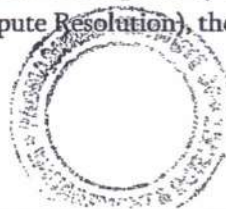
- 13.1. In the event of any dispute, claim or controversy arising under, or in relation to, this Agreement ("Dispute"), such Dispute shall be resolved by arbitration in accordance with the Arbitration and Conciliation Act, 1996. The Dispute shall be settled by a sole arbitrator to be appointed mutually by the parties to the Dispute. If the parties are unable to appoint a sole arbitrator by way of mutual consent, then such arbitrator shall be appointed pursuant to the provisions of Section 11 of the Arbitration and Conciliation Act, 1996. The seat of arbitration shall be Mysore, India and the arbitration proceedings shall be governed by the provisions of the Arbitration and Conciliation Act, 1996, as amended from time to time. All arbitration proceedings shall be conducted in English. The arbitration award shall be final and binding on the Parties and shall be enforceable in any competent court of law, and the Parties agree to be bound thereby and to act accordingly.

### 14. MISCELLANEOUS

- 14.1. **Force Majeure:** Neither Party shall be liable for any failure or delay in performance of any obligation, under this Agreement to the extent such failure nor delay is due to a Force Majeure Event. The Party having any such cause shall promptly notify the other Party in writing of the nature of such cause and the expected delay. If, however, it is not feasible for a Party to prevent the occurrence of the Force Majeure Event as a result of which that Party is prevented from performing its obligation for more than 30 (Thirty) days due to such Force Majeure Event ("Aggrieved Party"), the other Party may decide to release the Aggrieved Party from performing its obligation hereunder or may modify the relevant provisions of this Agreement affected by the Force Majeure Event so long as the Force Majeure Event continues, in order to enable the Aggrieved Party to perform its other obligations hereunder as so modified.
- 14.2. **Governing Law:** This Agreement shall be governed in all respects by the laws of India. Subject to the provisions of the above Clause 13 (Dispute Resolution), the courts at Mysore,



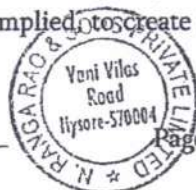
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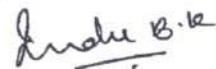
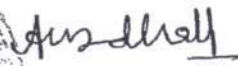


India shall have exclusive jurisdiction to determine any disputes arising out of or in relation to this Agreement.

- 14.3. **Assignment:** The Consultant may not assign its rights and obligations under this Agreement without the prior written consent of the Company.
- 14.4. **Amendments and Waivers:** Any provision of this Agreement may be amended, varied or waived if, and only if such amendment, variation or waiver is in writing and signed, in the case of an amendment/variation by each of the Parties, or in the case of a waiver, by the Party against whom the waiver is to be effective. No waiver by any Party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be or construed as a waiver of the same or any other term or condition of this Agreement on any future occasion.
- 14.5. **Severability:** The invalidity or unenforceability of any provision in this Agreement shall in no way affect the validity or enforceability of any other provision herein. In the event of the invalidity or unenforceability of any provision of this Agreement, the Parties will immediately negotiate in good faith to replace such a provision with another, which is not prohibited or unenforceable and has, as far as possible, the same legal and commercial effect as that which it replaces.
- 14.6. **Entire Agreement:** This Agreement, the Annexure attached herewith and recitals hereto (which are hereby expressly incorporated herein by reference) constitutes the entire understanding between the Parties and supersedes all other discussions and understanding between the Parties.
- 14.7. **Notices:** Except as may be otherwise provided herein, all notices, requests, waivers and other communications ("Notices") shall be delivered at the addresses provided for above.
- 14.8. **Survival:** Clauses 7 to 11 of this Agreement shall be enforceable despite termination of this Agreement. Any other provisions of this Agreement, which are by their nature, intended to survive the termination of this Agreement, shall survive the termination of this Agreement.
- 14.9. **Non-Exclusive:** This Agreement shall not limit or restrain the Company's right to execute similar agreements for obtaining similar research and development services from other consultants.
- 14.10. **Independent Parties:** Nothing contained herein shall be deemed to create any partnership, joint venture, or relationship of principal and agent between the Parties hereto or any of their affiliates or subsidiaries, or to provide either Party with any right, power, or authority, whether express or implied, to create any such duty or obligation on behalf of the other Party.







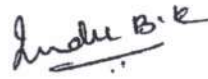
Page 14 of 18



14.11. **Authority to Sign:** Each Person signing the Agreement represents and warrants that he/she is duly authorized and has legal capacity to execute and deliver the Agreement.

14.12. **Counterparts:** This Agreement may be executed in 2 (Two) counterparts, each of which when executed and delivered shall constitute an original of this Agreement but shall together constitute one and only the Agreement.

IN WITNESS WHEREOF the Parties hereto have duly executed this Agreement as of the date and year hereinabove first written.

For and on behalf of N Ranga Rao & Sons Private Limited (Company)	For and on behalf of Samedha Innovations (Consultant)
  <p data-bbox="268 1064 667 1137">Name: Ganesha K U Designation: Authorised Signatory</p>	  <p data-bbox="809 1064 1208 1137">Name: Dr. M. Anuradha Designation: Authorised Signatory</p>  <p data-bbox="809 1339 1208 1413">Name: Dr. Indhu B.K. Designation: Authorised Signatory</p>

ANNEXURE A  
R&D SERVICES

Ready to use Theertham: (Liquid concentrate)

1. Product design and development
2. Sensory evaluation
3. Literature about the ingredients and traditional usages
4. Quality parameters (microbial load, heavy metal load)
5. Stability and shelf life studies

Time lines:

0-6 months: Product design and development

Sensory evaluation

Literature survey

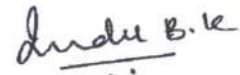
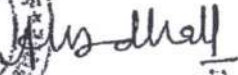
Stability and shelf life studies

6-9 months: Repetition of the formulation

Process data sheet preparation (lab scale)

Quality parameters (microbial load, heavy metal load, pH, density, colour, taste)

9-10 months: Dossier preparation with all the technical details



## ANNEXURE B

### CONSIDERATION AND PAYMENT TERMS

The Company shall pay the Consultant, sufficient and valid consideration in a manner as set forth below:

- Initial advance shall be paid to the Consultant for consumables and other outsourcing work by on signing the agreement.
- The remainder of the payments, in accordance with the payment structure below, shall be forwarded to the Consultant only after the completion of the Project.
- GST and other indirect taxes, as applicable, will be extra.

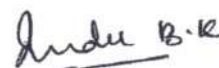
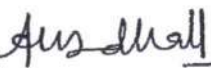
#### Initial Payments

- (i) Initial Advance: INR 1,00,000/- (Rupees One Lakh Only) can be paid as advance towards the product development, chemicals, glass ware and other expenditure, against an invoice raised in the name of the Company.

#### Payments Contingent Upon Tests & Studies:

- (i) Cost of Acute Oral Toxicity :
- INR 2,00,000/- (at the request of the Company out sourced and done at Accredited labs approved by the Company);
  - 50% advance payable before assigning the toxicity studies etc. as mutually agreed at the time of such assignment.
- (ii) Cost of Sub-acute oral Toxicity:
- INR 5,00,000/- (at the request of the Company out sourced and done at Accredited labs approved by the Company)
  - 50% advance payable before assigning the toxicity studies etc. as mutually agreed at the time of such assignment.

- (iii) Cost of Efficacy studies (cell lines) :



- Rs. 2,00, 000 (Cytotoxicity, modulatory effect) (at the request of the Company out sourced and done at Accredited labs approved by the Company)
- 50% advance payable before assigning the toxicity studies etc. as mutually agreed at the time of such assignment.
- (i) Literature search : Require 10 days with 5 man hours per day; fee included in the product development fee
- (ii) Quality parameters : in house, Actuals
- (iii) Stability and shelf life : In house, Actuals
- (iv) Product development: 3 to six months including studies (one person): INR 3,00,000/- (Rupees Three Lakhs Only) per product. TDs at the applicable rate shall be deducted from the payment.

**DESIGNATED BANK ACCOUNT DETAILS:**

1. Name of the account holder: Padmashree Institute of Management and Sciences
2. Account number: 842310210000001
3. Bank details: Bank of India, RPC layout , Vijayanagar
4. Type of account: SB
5. IFSC Code BKID0008423




*Handwritten signature*  
*Handwritten signature B.K*

### List of Eminent Scholars, Scientists and Professionals Visited the institution

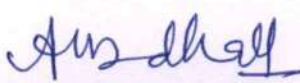
The Padmashree Institute of Management and Sciences regularly holds various skill-building and research-focused seminars, conferences, and workshops for the benefit of its students and faculty. Experts, including scientists, industrialists, prominent speakers, and professionals from various fields, are invited to share their knowledge and provide students with valuable insights into the research world. These guest speakers also engage in lively discussions, deliver inspiring speeches, and motivate students to pursue research and develop their research skills.

S. No	Name of the Speaker	Name of the Organisation	Title of the Seminar/ Workshop/ Talk
<b>2017-18</b>			
1	Mr. Darlane Duikar, Scientific Support Executive	Biomerieux India Pvt. Ltd.	Biochemical and microbial identification: API
2	Ms. Merlin Varghese, Scientific Support Executive	Biomerieux India Pvt. Ltd.	Biochemical and microbial identification: API
3	Mr. Shantha Kumar S., Technical Scientist	Hi Media Laboratories Pvt. Ltd.	Workshop on “Insta – PCR
4	Mr. Aravind, Managing Director	Dextrose Technologies Pvt. Ltd	Workshop on analytical techniques
<b>2018-19</b>			
1	Mr. K. K. Narayanan, Chairman	Kottaram Agro Foods Pvt. Ltd.	Food entrepreneurship - challenges and opportunities
2	Mr. Krishnappa, Chairman	Paramount Nutrition Pvt. Ltd.	Food entrepreneurship - challenges and opportunities
3	Ms. Shwetha, Consultant	Health Minds Pvt. Ltd.	Skills on scientific writing and statistical analysis
4	Mr. Velumurugan Shanmugam V.P.	Biogeno Pvt. Ltd., Bengaluru.	Workshop on quality control
5	Dr. Raghunath, Research Coordinator.	Azyme Biosciences, Bengaluru	Skills and Strategies for a successful research career.
6	Mr. Abhilash N., Manager.	Genei Laboratories Pvt. Ltd.	Hands-on workshop on gene cloning
7	Dr. Ramesh, CEO	Biogeno Pvt. Ltd., Bengaluru	Hands-on training on Spray dryer
8	Mr. Suresh Kumar, COO	Biogeno Pvt. Ltd., Bengaluru	Hands-on training on Spray dryer
9	Dr. Savithri H.S., Professor	IISC, Bengaluru	Importance of research in higher education
10	Dr. Krishnamurthy V. Registrar	PES university, Bengaluru	Selection and designing of a research Problem
11	Dr. Somu, Professor	Christ University, Bengaluru	Importance of intellectual property rights in research
12	Dr. Balasubramanya S, Senior Consultant	Department of ITBT, K-Tech	Securing grants for research- “A beginner’s guide”
12	Dr. Savithri Bhat, Head of the Department.	BMS. College of Engineering	Plagiarism

13	Dr. Kshitish K. Acharya, Professor	IBAB, Bengaluru	literature search and data mining
14	Dr. Madhumathi B. Shankar, Deputy Manager	Anthem Biosciences, Bengaluru	Research management
15	Dr. Seema Tharannum, Professor	PES University, Bengaluru	Significance of publications in research
16	Mr. Hariharan M, Senior Application Specialist	Waters India Pvt. Ltd. Bengaluru	Workshop on HPLC
17	Dr. Padmavathi, Dean and professor	IIT, Kharagpur	Basics of intellectual property rights
18	Mr. Vikram N. Prabhu, Co-Founder	Rubizon Pvt. Ltd. Bengaluru	Hands-on training on HPLC
19	Umesh T. G., Co-Founder	Rubizon Pvt. Ltd. Bengaluru	Hands-on training on FPLC
<b>2019-20</b>			
1	Dr. S. Shivakumara, Scientist	IBAB, Bengaluru	Research publication- a tool for career advancement
2	Dr. Savithri. M. Bhat, Professor	BMS. College of Engineering,	Beginner's guide for publications
3	Dr. N. Sathish Gowda, Assistant Professor	University of Law College,	Significance of IPR in research
4	Dr. Priyankana Mukherjee, Funding advisor	IKP Knowledge park, Bengaluru	Translation of academic research to reality
5	Dr. Indrani Karunasagar, Scientist	NITTE University	Career option in research
6	Dr. Ramgopal Rao S., Academic Manager	Biocon Academy, Bengaluru	Quality, regulatory and manufacturing functions
7	Mr. Vikrama N. Prabhu, Co-Founder	Rubizon Pvt. Ltd., Bengaluru	Hands-on training on HPLC
8	Umesh T. G., Co-Founder	Rubizon Pvt. Ltd., Bengaluru	Industrial hands-on training on FPLC
9	Dr. Mamatha Mishra, Director	Greentick Food Tech Pvt. Ltd.,	Food safety training and certification
10	Mr. Velumurugan Shanmugam, VP	Biogenero Labs Pvt. Ltd., Bengaluru	Lab safety skills and practices
11	Dr. Prapulla S. G., Chief Scientist (Rtd),	CFTRI, Mysore	Talk on probiotics and prebiotics
12	Dr. Balasubramanya S., Senior Consultant	Dept. of IT, BT, K-Tech, GOK,	Talk on grants and funding
13	Dr. Usha Ravindra, Professor	GKVK, Bengaluru	Microgreens and its potential benefits
14	Dr. Seema Tharanum, Associate Professor	PES University, Bengaluru	Research aspects related to Nutraceuticals
15	Mr. Thammaiah A. Thelapanda, Trainer	TUV SUD South Asia Pvt. Ltd.	HACCP certification training
16	Mr. Jairaj Marcose, Trainer	TUV SUD South Asia Pvt. Ltd.	ISO 20000 certification training
17	Dr. Ravishankar, Principal Scientist (Rtd)	CFTRI, Mysore	<i>Invitro</i> secondary metabolite production

18	Dr. Savithri. M. Bhat, Professor	BMS. College of Engineering	Technology development of transgenic plants
19	Ms. Prathiba N., Assistant Professor	BMS. College of Engineering,	Bioreactors in plant tissue culture
20	Mr. Velumurugan Shanmugam, VP	Biogeno Labs Pvt. Ltd., Bengaluru	Essentials of quality control and quality assurance.
21	Dr. Ramgopal Rao S., Senior Manager	Biocon Academy, Bengaluru	Regulatory policies in life science industry
22	Dr. Deepti Saini, Director- Research	Protein Design Pvt. Ltd., Bengaluru	Quality control in protein drugs
23	Mr.s. Deepa, Head- R & D, Quality	Kottaram Agro Foods Pvt. Ltd.	Reporting and documentation in quality
24	Mr. Thammaiah A Thelapanda, Trainer	TUV SUD South Asia Pvt. Ltd.	Quality control aspects in microbiology
25	Dr. Muruganantham N. Scientific affairs officer	Natural Remedies Pvt. Ltd., Bengaluru	Regulations (India) of nutraceuticals
26	Dr. Vasanth S. Director	Biomyz Pvt. Ltd., Bengaluru	Importance of quality control skills in bioindustry
27	Dr. B. Y. Satish Kumar, Dept of Biotechnology	JSS college	Life science skills
28	Mr. H. Hemanth Kumar, Executive Secretary	KSCST, Bengaluru	Opening remarks IPR and KSCST
29	Mr. Vivek Anand Sagar IP attorney,	KSCST, Bengaluru	Tackling Covid-19
30	Mr. Nagarjun M. G. Project Associate,	KSCST, Bengaluru	Overview of intellectual property rights
31	Dr. Meera Pandey, Principal Scientist	IIHR, Bengaluru	Mushroom technology
32	Mr. Rakesh Arakere, CFO	Taegu Tech India Pvt. Ltd. Bangalore	Indian economy and challenges in post Covid
<b>2020-21</b>			
1	Dr. H. R. Bhargava, CEO	Sri Annapoorneshwari Naturals	Apiculture and entrepreneurship
2	Dr. Angshuman Bagchi, Associate Professor	University of Kalyani, West Bengal	Lecture series- protein functional sites
3	Mr. Jesse Smiles Dondapati, Graduate teaching asst.	University of Guelph, Canada	Lecture Series- bioinformatics and drug discovery
4	Dr. Deepti Saini, Director	Protein Design Pvt. Ltd., Bengaluru	Bioinformatics in protein design
5	Dr. Shubhada Hegde, DST- Inspire Faculty Scientist	IBAB, Bengaluru	Bioinformatic approach in studying infectious disease

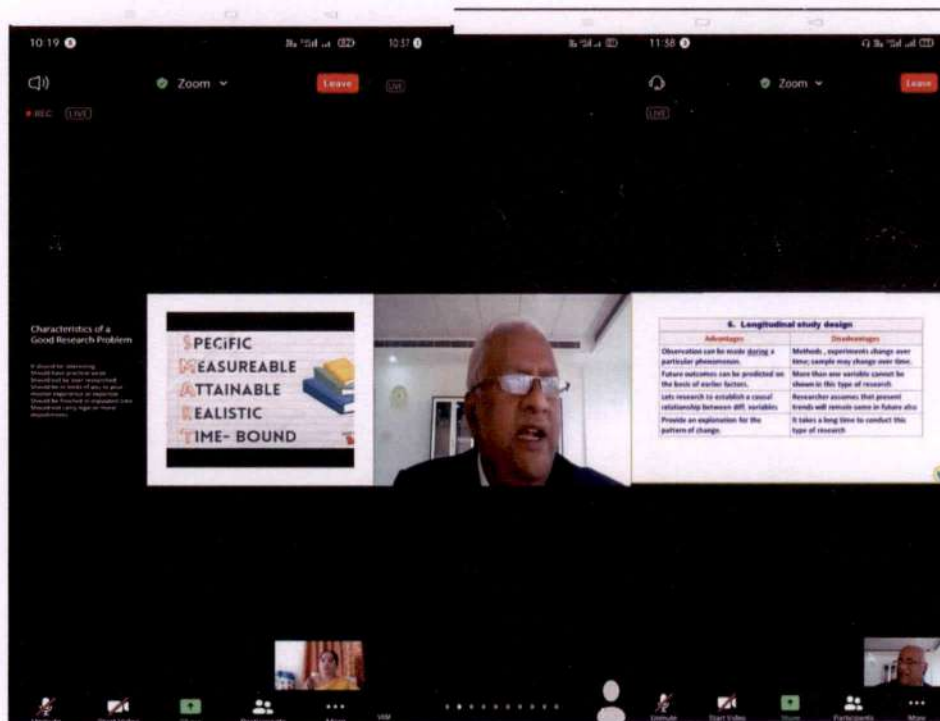


  
**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences



### List of Eminent Scholars, Scientists and Professionals Visited the institution

#### Photo gallery



*Anuradha M*  
**Dr. Anuradha. M**  
Principal  
Padmashree Institute of  
Management & Sciences

### LIST OF AWARDS AND RECOGNITIONS

S. No.	Particulars
1	Mr. Anooj O and Ms. Roopika V. won the third prize for poster presentation at the Bangalore Tech Summit 2018.
2	Ms. Pooja Yadav won the first prize for poster presentation at the Bangalore Tech Summit 2019.
3	Ms. Divya K. won the consolation prize for poster presentation at the Bangalore Tech Summit 2019
4	Dr. Umalatha and Dr. M. Anuradha won the second prize for poster presentation at the Bangalore Tech Summit 2020.
5	Mr. Udaya Ravi won the second prize for poster presentation at the Bangalore Tech Summit 2022.
6	Dr. Nethra S. won the reviewer excellence award from the Indian Journal of Agricultural Research.
7	Dr. Preenon Bagchi was selected as a post-doctoral fellow at the Institute National de la Santé et de la Recherche Médicale.
8	Dr. Preenon Bagchi received registration and travel support for the 3rd RSU National and International Research Conference (RSUSSH-2018) held in Pathumthani, Thailand
9	Dr. Eranna G. was awarded the Dr. APJ Abdul Kalam Lifetime Achievement Award for National Outstanding Excellence in the field of teaching, research, and publication, by the international institute for social and economic reforms, Bengaluru.
10	Dr. Preenon Bagchi was awarded the National Post-Doctoral Fellowship (N-PDF) from the Science and Engineering Board (SERB) Fund for Science and Engineering Research (FSER), by the Government of India.
11	Dr. Umalatha selected for Women Scientist B project Department of Science and Technology
12	Mrs. Manju Bhargavi O. J. won the ACS Poster Presentation award at the ICAMR-2019, held at M.S. Ramaiah University of Applied Sciences, Bangalore.
13	Dr. D. V. Sriharsha won the Dr. M. J. Thirumalachar Young Scientist Award - second prize for oral presentation, from the Mycological Society of India, Pondicherry.
14	Mrs. Chaitra H. M. won the IWSA's Nanik Gurnani Award for poster presentation from the Indian Women Scientist Association.
15	Dr. Preenon Bagchi received an appreciation message from the Prime Minister of India at the 7th International Conference on Public Mental Health and Neurosciences (ICPMN - 2020).



*Anuradha M*

**Dr. Anuradha. M**  
 Principal  
 Padmashree Institute of  
 Management & Sciences

# Certificate



**INDIABIO**

@ BENGALURU TECH SUMMIT

29<sup>th</sup> NOV - 1<sup>st</sup> DEC, 2018 | BENGALURU PALACE

This Certificate is awarded to

**Anooj O / Roopika.V**

from Padmashree Institute Of Management And Sciences

for securing **Third Prize** for the Poster titled '**Studies on Microbial Biodegradation of Paints**'

in the '**Poster - Walkway of Discovery**' at Bengaluru Tech Summit 2018.

INNOVATE  
KARNATAKA

k-tech

credit  
STPI

Vinoth Priya, IAS

Director, Dept. of IT and BT, Government of Karnataka



**INDIABIO**

@ BENGALURU TECH SUMMIT

18<sup>th</sup> - 20<sup>th</sup> NOV 2019 | BENGALURU PALACE

## CERTIFICATE

This Certificate is awarded to

**Pooja Yadav**

from **Padmashree Institute of Management and Sciences**

for securing **First Prize** for the Poster titled

**'Synthesis of magnetite nanoparticle from Moringa oleifera and Strychnos potatorum seed – A cost effective technology to treat polluted water'**  
in the 'Poster - Walkway of Discovery' at **Bengaluru Tech Summit 2019.**

Bengaluru  
Tuesday, 19 November, 2019

**Dr. E.V. Ramana Reddy, IAS**

Additional Chief Secretary, Dept. of IT, BT and S&T and  
Urban Development Department, Government of Karnataka



**INDIABIO**

@ BENGALURU TECH SUMMIT

18<sup>th</sup> - 20<sup>th</sup> NOV 2019 BENGALURU PALACE

## CERTIFICATE

This Certificate is awarded to

Divya K

from **Padmashree Institute of Management and Sciences**

for securing Consolation Prize for the Poster titled

**'Bio weedicide activity of Parthenium extract nanoparticles'**

in the 'Poster - Walkway of Discovery' at **Bengaluru Tech Summit 2019.**

Bengaluru  
Tuesday, 19 November, 2019

Dr. E.V. Ramana Reddy, AS

Additional Chief Secretary, Dept. of IT, BT and S&T and  
Urban Development Department, Government of Karnataka



INNOVATE  
KARNATAKA

k-tech

**NEXTIS  
NOW**

**CERTIFICATE**

| **VIRTUAL** EVENT |



**BTS2020**

**BENGALURUTECH SUMMIT**

19<sup>th</sup> - 21<sup>st</sup> NOV 2020

This Certificate is awarded to

**Umalatha and M Anuradha**

from **Padmashree Institute of Management and Sciences**

for securing **Second Prize** for the Poster titled

**'Purification and characterization of trypsin from the visceral waste of**

**Labeorohita for Utilization in biotech industry'**

in the 'Poster - Walkway of Discovery' at BTS 2020.

Bengaluru  
Saturday, 21 November, 2020

**DR. E.V. RAMANA REDDY, IAS**

Additional Chief Secretary to Chief Minister and  
Department of Electronics, IT, Bt and S&T, Government of Karnataka



# BENGALURU TECH SUMMIT

16-18, NOV 2022 • BANGALORE PALACE

## Certificate

This Certificate is awarded to

**MR. UDAYA RAVI**

from **Padmashree Institute of Management and Sciences**

for securing **Second Prize** for the poster titled

*Bioremediation of textile dye by immobilized fungi*

in the 'Bio Poster - Walkway of Discovery' at Bengaluru Tech Summit 2022

Friday, 18th November, 2022  
Bengaluru, India

DR. E.V. RAMANA REDDY, IAS  
Additional Chief Secretary, Dept. of Electronics, IT, Bt and S&T;  
Dept. of Commerce & Industries, Government of Karnataka



# REVIEWER EXCELLENCE AWARD

is awarded to

**Dr. Nethra Subramanya**

As Reviewer of  
*Indian Journal of Agricultural Research*

With sincere thanks and very best wishes from the Editors of  
**ARCC Journals**

In recognition of significant and outstanding contribution to the Journal and reviewing the article.

**Article Title :-**

***Field efficacy of Cowpathy products and biological control agents in controlling banded leaf and sheath blight disease and increasing maize yield***

Date  
30-09-2022



**Agricultural Research Communication Center**  
[www.arccjournals.com](http://www.arccjournals.com)

  
**Gaurav Gupta**  
Managing Editor



12 MARS 2019

INSERM DR EST

Référence : DR ALSACE / J. HART  
Acte : 000500734  
Matricule : 00555852

## CONTRAT D'ENGAGEMENT

Entre les soussignés :

L'Institut national de la santé et de la recherche médicale représenté par son Président-directeur général et dont le siège est situé 101 rue de Tolbiac - 75654 Paris Cedex 13, ci-après dénommé « l'Inserm »

### D'UNE PART,

et Monsieur Preenon BAGCHI,  
demeurant : 17 Rue Jean Jaurès - 54550 PONT ST VINCENT  
ci-après dénommé « l'agent »

### D'AUTRE PART,

**Vu** le code de l'entrée et du séjour des étrangers et du droit d'asile ;

**Vu** la loi n° 83-634 du 13 juillet 1983 modifiée portant droits et obligations des fonctionnaires, et notamment son article 32 ;

**Vu** la loi n° 84-16 du 11 janvier 1984 modifiée portant dispositions statutaires relatives à la fonction publique de l'Etat, et notamment son article 4-2° ;

**Vu** le décret n° 83-975 du 10 novembre 1983 modifié portant organisation et fonctionnement de l'Institut national de la santé et de la recherche médicale ;

**Vu** le décret n° 86-83 du 17 janvier 1986 modifié relatif aux dispositions générales applicables aux agents contractuels de l'Etat pris pour l'application de l'article 7 de la loi du 11 janvier 1984 susvisée ;

**Vu** la décision n° 2016-73 du 22 août 2016 fixant les modalités de rémunération des agents contractuels de l'Institut national de la santé et de la recherche médicale ;

**Vu** le financement accordé par l'Agence Nationale de la Recherche ;

Considérant que la nature des fonctions ou les besoins des services justifie le recrutement d'un agent contractuel et qu'aucun fonctionnaire n'a pu être recruté dans les conditions prévues par la loi,

Il a été convenu ce qui suit :

### **ARTICLE 1<sup>er</sup> - CONDITIONS GÉNÉRALES**

Monsieur Preenon BAGCHI est engagé à l'Inserm en qualité d'agent contractuel à temps complet, en tant qu'ingénieur de recherche en épidémiologie génétique et bio-informatique (emploi relevant de la catégorie hiérarchique A de la fonction publique) pour effectuer des travaux techniques hautement spécialisés dans le cadre du projet « FIGHT HF : Combattre l'Insuffisance Cardiaque ».

L'agent est placé sous l'autorité hiérarchique du responsable de la structure d'affectation suivante : Unité de Recherche Inserm U 1122 à Nancy.

Le présent contrat ne constitue pas un engagement à caractère permanent et ne confère en aucun cas le droit à une intégration dans le cadre des personnels statutaires de l'Inserm.

Il est soumis à l'ensemble des dispositions du décret du 17 janvier 1986 susvisé.

## **ARTICLE 2 - DURÉE DU CONTRAT**

Le présent contrat est conclu pour une durée de 11 mois et 13 jours du 18/02/2019 au 31/01/2020 inclus. Il ne pourra être renouvelé que par reconduction expresse.

Le présent contrat ne deviendra définitif qu'à l'issue d'une période d'essai de 1 mois, qui pourra, à l'initiative de l'Inserm ou de l'agent et avec l'accord exprès de chaque partie, être renouvelée une fois pour une durée au plus égale à sa durée initiale.

Toute absence intervenant au cours de la période d'essai pour une autre cause qu'un congé annuel, un congé résultant d'une fête légale ou une autorisation exceptionnelle d'absence, prolonge d'autant la durée de cette période.

## **ARTICLE 3 - RÉMUNERATION**

L'agent percevra mensuellement, à terme échu, une rémunération brute de 2 792.17 euros, exclusive de toutes primes.

Cette rémunération suivra la même évolution que celle de la fonction publique.

Elle pourra être complétée, si l'agent remplit les conditions requises, du versement du supplément familial de traitement et de la prise en charge partielle de ses frais d'abonnement de transport en commun.

## **ARTICLE 4 - PROTECTION SOCIALE**

L'agent est affilié au régime général de la sécurité sociale pour les assurances maladie, maternité, invalidité et décès, de la couverture du congé de paternité et des dispositions relatives au temps partiel pour motif thérapeutique.

Les prestations dues au titre de la législation sur les accidents du travail et maladies professionnelles sont servies, selon le cas, par l'Inserm ou le régime général de la sécurité sociale.

L'agent est affilié au régime de retraite complémentaire de l'Institution de retraite complémentaire des agents non titulaires de l'État et des collectivités publiques (IRCANTEC).

Sous réserve de remplir les conditions requises, l'agent peut, le cas échéant, bénéficier des allocations d'assurance chômage versées par Pôle emploi.

## **ARTICLE 5 - HORAIRES DE TRAVAIL - CONGÉS ANNUELS - FRAIS DE DÉPLACEMENT - CUMULS**

S'agissant des horaires de travail, des congés annuels, des autorisations exceptionnelles d'absence, des frais de déplacement et des cumuls d'activités, l'agent relève des règles applicables aux agents titulaires de l'Inserm et de celles prévues par le règlement intérieur de la structure où il exerce ses fonctions.

Les droits à congés annuels doivent être exercés avant le terme du présent contrat.

## **ARTICLE 6 - OBLIGATIONS**

L'agent est soumis aux obligations incombant à l'ensemble des agents publics, notamment à celles d'obéissance hiérarchique et à l'obligation de réserve ; il est également tenu à la discrétion et au secret

professionnels et doit, dans ce cadre, s'abstenir de divulguer à des tiers ou à des personnels de l'Inserm qui ne sont pas habilités à en connaître, les faits, informations et documents dont il a connaissance dans l'exercice ou à l'occasion de l'exercice de ses fonctions.

L'agent doit solliciter de manière expresse de l'autorité hiérarchique l'autorisation d'effectuer toute communication écrite ou orale.

Sans préjudice des mécanismes de cession automatique prévue par la législation applicable, les résultats obtenus par l'agent dans le cadre des travaux de recherche qu'il réalise, notamment et de manière non limitative les données, bases de données, logiciels, matériels, modèles, méthodes, descriptifs, savoir-faire, procédés, applications, inventions et/ou connaissances brevetables ou non, sous quelque forme et de quelque nature qu'ils soient, quel que soit le support utilisé (ci-après, les « Résultats »), sont la propriété exclusive et entière de l'Inserm.

A cette fin, au fur et à mesure de leur création, l'agent cède à l'Inserm à titre exclusif l'ensemble des droits légalement cessibles, en ce compris les droits patrimoniaux de propriété intellectuelle, qu'il détient sur les Résultats, pour toute la durée de protection desdits droits et pour le monde entier.

Les parties entendent notamment par l'ensemble des droits patrimoniaux de propriété intellectuelle :

- le droit d'utilisation et d'exploitation commerciale, sous toutes formes, même non prévues ou non prévisibles à la date de signature du présent contrat ;
- le droit de reproduction par tous moyens et sur tous supports, connus ou inconnus au jour de la signature des présentes ;
- le droit de représentation par tous procédés, connus et inconnus au jour de la signature, y compris par voie hertzienne, câble, satellite...;
- le droit de modification, adaptation, traduction, évolution, adjonction, édition, suppression de tout ou partie de l'œuvre cédée et ce sur tous supports connus ou inconnus à ce jour ;
- le droit de céder tout ou partie de l'œuvre cédée et notamment de consentir à tout tiers tous contrats de reproduction, de distribution, de diffusion, de commercialisation, d'exploitation, de fabrication, sous quelle que forme, quel que support et quelque moyen que ce soit à titre onéreux ou gratuit ;
- et de manière générale toutes les prérogatives patrimoniales de l'auteur sur sa création.

Sans préjudice du droit pour l'agent de procéder à des publications ou communications scientifiques des Résultats après autorisation de son autorité hiérarchique, l'agent s'engage à ne pas déposer de titre ou désignation relatif aux Résultats en son nom propre.

Les mécanismes de rémunération prévus par la législation applicable en lien avec la valorisation des Résultats s'appliquent.

L'agent s'engage à fournir à l'Inserm, ou à tout tiers désigné par celui-ci, toutes signatures, pièces ou tous documents nécessaires à la procédure de dépôt, d'extension, de maintien en vigueur ou de défense des droits ou titres de propriété intellectuelle relatifs aux Résultats précités, tant en France qu'à l'étranger. Il s'engage, à cet effet, à donner à l'Inserm toute indication sur son adresse et les moyens d'entrer en contact avec lui, en quelque lieu qu'il se trouve, pendant les cinq années suivant l'échéance ou la résiliation anticipée pour quelque cause que ce soit du présent contrat.

En cas de manquement à ses obligations, l'agent s'expose aux sanctions disciplinaires prévues par le décret du 17 janvier 1986 susvisé.

## **ARTICLE 7 - FIN DU CONTRAT**

Le présent contrat prend normalement fin à son terme et ne donne lieu au versement d'aucune indemnité.

Il peut cependant être résilié :

- à l'initiative de l'agent :
  - sans indemnité, au cours ou à l'expiration de la période d'essai fixée à l'article 2 ;
  - sans indemnité, postérieurement à la période d'essai. Dans ce cas, l'agent adresse préalablement à l'Inserm, par lettre recommandée, une demande de démission formulée de manière claire et non équivoque ;
- à l'initiative de l'Inserm, par décision du Président-directeur général :
  - sans indemnité, au cours ou à l'expiration de la période d'essai fixée à l'article 2, à l'issue d'un entretien préalable ;
  - postérieurement à la période d'essai, suite à un entretien préalable et à l'avis de la commission consultative paritaire, notamment pour faute disciplinaire ou insuffisance professionnelle. Dans ce cas, l'agent est notamment informé des motifs du licenciement et mis en mesure de présenter ses observations.

Aucun préavis n'est requis lorsque la décision de mettre fin au contrat intervient en cours ou à l'expiration d'une période d'essai ni en cas de licenciement pour faute disciplinaire.

Le non-renouvellement de l'éventuel document de séjour, la déchéance des droits civiques ou l'interdiction d'exercer un emploi public prononcée par décision de justice sur le fondement de l'article 131-26 du code pénal entraînent de plein droit la cessation du contrat, sans préavis ni versement de l'indemnité de licenciement.

Dans les autres situations de rupture anticipée du présent contrat, un préavis doit être respecté par l'une et l'autre des parties, dont la durée est fixée comme suit :

- huit jours, si l'agent justifie auprès de l'Inserm d'une ancienneté de services d'une durée inférieure à six mois,
- un mois, si l'agent justifie auprès de l'Inserm d'une ancienneté de services d'une durée supérieure ou égale à six mois et inférieure à deux ans,
- deux mois, si l'agent justifie auprès de l'Inserm d'une ancienneté de services d'une durée supérieure ou égale à deux ans.

#### **ARTICLE 8 - LITIGES**

Tout litige pouvant résulter de l'exécution du présent contrat relève de la compétence du tribunal administratif du ressort duquel se trouve le lieu d'affectation de l'agent.

L'agent

(Signature précédée de la mention « lu et approuvé »)

*Lu et approuvé*  
*Freemon Baychi*

Fait en deux exemplaires originaux

à Strasbourg, le 07/03/2019

Pour le Président-directeur général  
et par délégation,  
La Responsable des Ressources Humaines  
Anna LAZAR



Déclaration Préalable  
A l'Embauche  
Accusé de Réception

URSSAF DE LORRAINE  
6 RUE PASTEUR - BP 80582  
57032 METZ CEDEX 1  
Tél. : 3957  
Fax. : 0329454329

NOM : BAGCHI  
Prénom : PREENON  
Référence dossier : K1344

INSTITUT NATIONAL DE LA SANTE  
ET  
DE LA RECHERCHE MEDICALE

SIRET : 18003604800114 APE/NAF : 7219Z  
Raison sociale : INSTITUT NATIONAL DE LA SANTE ET  
DE LA RECHERCHE MEDICALE  
Adresse de l'établissement : U 1122 - 30 RUE LIONNOIS  
54000 NANCY

U 1122 - 30 RUE LIONNOIS  
54000 NANCY

Nous avons pris bonne note de votre DPAE reçue le 04/03/2019  
concernant BAGCHI PREENON  
enregistrée sous la référence dossier K1344.  
En procédant à cette DPAE, vous avez permis l'enregistrement des formalités dont la liste figure ci-dessous. Les  
informations communiquées seront transmises de manière automatique aux partenaires concernés.  
Pour toute information complémentaire, votre Urssaf reste à votre disposition.

Le Directeur

FORMALITÉS ENREGISTRÉES	DATE	FORMALITÉS ENREGISTRÉES	DATE
Données en vue du pré-établissement de la DADS	04/03/2019 13:37	Demande d'immatriculation d'un travailleur	04/03/2019 13:37
Médecine du travail	04/03/2019 13:37	Declaration de première embauche dans un établissement	04/03/2019 13:37

ATTESTATION DE DÉCLARATION PRÉALABLE À L'EMBAUCHE reçue le 04/03/2019

SALARIÉ Réf. Dossier : K1344		INFORMATION EMPLOYEUR	
Date et heure d'embauche : 18/02/2019 08:00		APE/NAF : 7219Z	
NOM	BAGCHI	SIRET	18003604800114
Prénom	PREENON	Raison sociale	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE
N° sécurité sociale		Adresse de l'établissement	U 1122 - 30 RUE LIONNOIS 54000 NANCY
Date de naissance	02/05/1983		
Lieu de naissance	BAIDYANATH DHAM		

La loi 78-17 du 06/01/1978 relative à l'informatique, aux fichiers et aux libertés vous garantit un droit d'accès, de rectification des données vous concernant et vous permet de refuser, conformément à l'article 27, leur maintien dans le fichier au cas de motif légitime. Ce droit s'exerce auprès de l'Urssaf destinataire de la déclaration.



REPUBLIQUE FRANCAISE

### CONVENTION D'ACCUEIL D'UN CHERCHEUR OU ENSEIGNANT-CHERCHEUR ETRANGER

En vue de l'admission au séjour en France en qualité de « scientifique » d'un étranger non ressortissant de l'Union européenne, de l'Espace économique européen ou de la Confédération suisse, invité par un organisme français agréé à cet effet, pour y exercer une activité de recherche ou d'enseignement de niveau universitaire (en application de l'article L.313-8 du code de l'entrée et du séjour des étrangers et du droit d'asile).

**Cadre A** Informations relatives à l'organisme d'accueil agréé

L'organisme désigné ci-après :

Dénomination (en lettres capitales) : INSERM.....

Statut Juridique : EPST .....

Code SIREN ou SIRET de l'établissement d'accueil : 18003604800114 .....

Responsable du projet de recherche ou d'enseignement universitaire:

Nom (M, Mme, Mlle) : SIEST..... Prénom : Sophie .....

Adresse de l'unité ou centre de recherche ou d'enseignement d'accueil : UMR INSERM U1122 ; IGE-PCV,  
Université de Lorraine - Présidence site Lionnois - 30 rue Lionnois.....

**5 4 0 0 0 1 1** NANCY |

Code postal Commune / arrondissement

Représentant de l'organisme, responsable de l'accueil ci-après dénommé « le référent » :

Nom (M, Mme, Mlle) LAZAR..... Prénom : Anna.....

Qualité (Président, Directeur, etc.) : Responsable des Ressources Humaines.....

Certifie accueillir en qualité de chercheur ou d'enseignant chercheur,

Nom (M, Mme, Mlle) BAGCHI..... Prénom : Preenon.....

qui justifie des ressources requises pour couvrir ses frais de séjour en France et son rapatriement dans son pays d'origine et s'engage à ce qu'il bénéficie d'une couverture santé pour la durée de son séjour ainsi que d'une couverture contre les accidents qui pourraient survenir à l'occasion de son travail de recherche ou d'enseignement au sein de l'organisme d'accueil. en application de l'article 6 de la directive n°2005/71/CE du Conseil du 12 octobre 2005 relative à une procédure d'admission spécifique des ressortissants de pays tiers aux fins de recherche scientifique

Le référent, responsable de l'accueil du chercheur ou de l'enseignant chercheur, atteste sur l'honneur l'exactitude des déclarations portées sur ce document :

Fait à Strasbourg....., le 23/01/2019.....

Signature du référent responsable de l'accueil  
  
Inserm Délégation Régionale Grand Est  
Pour les régions Alsace, Bourgogne, Champagne-Ardenne  
Franche-Comté, Lorraine  
Responsable des Ressources Humaines

Cachet de l'organisme  
Délégation Régionale Grand Est  
5, Rue Jacob Mayer  
BP 10005  
67037 STRASBOURG CEDEX 2  
Tél. 03 88 10 86 30 - Fax 03 88 10 81 75

La loi 78/17 du 6 janvier 1978 modifiée relative à l'informatique et aux libertés s'applique aux renseignements contenus dans ce formulaire et garantit un droit d'accès et de rectification pour les données vous concernant auprès de la préfecture de votre département de résidence.

Cadre B	Informations relatives au chercheur ou à l'enseignant chercheur
<p>Nom (M, <del>Mme</del>, <del>Mlle</del>) : BAGCHI..... Prénom : Preenon.....</p> <p>Date de naissance :   0   2   /   0   5   /   1   9   8   3   Nationalité : Indienne.....</p> <p>Qualité : Chercheur <input checked="" type="checkbox"/> Enseignant-chercheur <input type="checkbox"/></p> <p>Adresse (dans le pays de résidence habituelle) : Boudyanath Dhom, Deagher, Jharkhand, India</p> <p>Nom de l'organisme/employeur ou établissement d'enseignement supérieur fréquenté dans le pays de résidence : .....</p> <p><b>Pour le projet de recherche ou d'enseignement universitaire suivant :</b>            Nature de la recherche ou de l'enseignement universitaire : ANR TELARTA project, telemore lenght will be measured in several cohorts of patients at high risk for development of HF.....            Durée prévue du séjour :  <input checked="" type="checkbox"/> du 01/02/2019 au 31/01/2020  <input type="checkbox"/> à durée indéterminée</p> <p>Adresse du domicile prévu en France (à défaut, adresse de l'unité de recherche) : UMR INSERM U1122 ; IGE-PCV, Université de Lorraine - Présidence site Lionnois - 30 rue Lionnois.....</p> <p><b>  5   4   0   0   10  </b> <b>NANCY</b>              Code postal Commune / arrondissement</p> <p>Sous le statut de :  <input checked="" type="checkbox"/> Salarié dont le salaire est versé en France ou étranger détaché en application de l'article L. 342-2 du code du travail (durée du contrat conclu - montant du salaire brut mensuel)) : 12 mois - 2 792,16€.....  <input type="checkbox"/> Autre (préciser) : .....</p> <p><b>Cas spécifique des doctorants salariés</b> (salaire obligatoire si le chercheur est accueilli en qualité de doctorant) :            Si le scientifique envisage de s'inscrire ou s'est inscrit dans un établissement d'enseignement supérieur pour y préparer une thèse de doctorat, veuillez indiquer :            Le nom de l'établissement : .....</p> <p>Le sujet de la thèse de doctorat : .....</p> <p>Organisme auprès duquel est souscrit le contrat (contrat de travail, contrat d'agent non titulaire de l'Etat) sur la base duquel le scientifique est rémunéré : .....</p> <p><b>Le chercheur ou l'enseignant - chercheur atteste sur l'honneur l'exactitude des déclarations ci-dessus :</b>            Fait à <u>Nancy</u>....., le <u>18/2/2019</u>.....            Signature : <u>Preenon Bogchi</u></p>	
<b>Autorité consulaire</b> (Lorsque l'entrée en France est subordonnée à la présentation d'un visa)	<b>Préfecture :</b>
Date et cachet :	Date et Cachet <u>29/07/19</u> Pour le Préfet et par délégation Le chef de bureau du service Angelique TOUSSAINT

INTERNATIONAL INSTITUTE FOR SOCIAL  
AND ECONOMIC REFORMS (R), BENGALURU

Proudly Presents

Dr. A.P.J. Abdul Kalam Life Time  
Achievement National Award



DR. ERANNA. G  
Bangalore

for your distinguished contributions to the development of the  
Nation and achieving outstanding excellence in the field of  
**Teaching, Research and Publications.**

Today the 26th January 2019 at Bengaluru

A handwritten signature in green ink, appearing to read 'Shivappa'.

**Dr. H.V. SHIVAPPA**  
President

A handwritten signature in green ink, appearing to read 'Desai'.

**G.S. DESAI**  
Secretary



Dated: 13-Oct-2016

**ORDER**

Subject: Financial Sanction under National Post-Doctoral Fellowship to Mr. Preenon Bagchi, under the mentorship of Dr. M. Anuradha, at Padmashree Institute Of Management And Sciences, Padmashree Campus, Sy. No. 149, Kommaghatta, Sulikere Post, Kengeri, KARNATAKA-560060- Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned fellowship at a total cost of Rs. 19,20,000/- (Rs. Nineteen Lakh Twenty Thousand Only) for a duration of Two years.

The date of start of the fellowship will be 24 June, 2016

The items of expenditure for which the total allocation of Rs. 19,20,000/- has been approved are given below:

Sl. No.	Budget Head	Amount
1.	Fellowship	Rs. 13,20,000 ( @55,000/- per month (consolidated))
2.	Research Grant	Rs. 2,00,000/- per annum
3.	Overheads	Rs. 1,00,000/- per annum

2. Sanction of the SERB is also accorded to the payment of Rs. 9,60,000/- (Rupees Nine Lakh Sixty Thousand only) under 'Grants-in-aid General' to Padmashree Institute Of Management And Sciences, Padmashree Campus, Sy. No. 149, Kommaghatta, Sulikere Post, Kengeri being the first installment of the grant for the year 2016-2017 for implementation of the said research project.

3. The expenditure involved is debitable to

Fund for Science & Engineering Research (FSER)

This release is being made under National Post Doctoral Fellowship (N-PDF). (Life Sciences)

4. The Sanction has been issued to with the approval of the competent authority vide Diary No. SERB/F/5100/2016-17 dated 13 October, 2016

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website ([www.serb.gov.in](http://www.serb.gov.in)).

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

7. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

8. The release amount of Rs. 9,60,000/- (Rupees Nine Lakh Sixty Thousand only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

Account Name	Padmashree Institute of Management & Sciences
Account Number	842310210000001
Bank Name & Branch	Bank of India Branch RPC, Layout No 46, 5th Main, RPC Layout, Vijayanagara, Bangalore 560040
IFSC/RTGS Code	BKID0008423
Email id of A/C Holder	pimsprincipal@gmail.com
Email id of PI	prithish.bagchi@gmail.com
Email id of Mentor	pimsprincipal@gmail.com

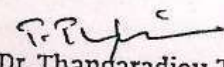
9. The institute will furnish Utilization certificate(UCs) financial year wise to the SERB and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

10. The institute will maintain separate audited accounts for the fellowship. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

11. The File no. PDF/2015/000047 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

12. As this is the first grant for the fellowship, no previous U/C is required.

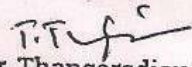
13. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

  
(Dr. Thangaradjou T)  
Scientist E  
ttradjou@serb.gov.in

To,  
Finance & Budget Officer  
SERB, New Delhi

Copy forwarded for information and necessary action to :-

1.	The Principal Director of Audit, A.G.C.R. Building, IIIrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB, New Delhi.
3.	File Copy
4.	<p>Mr. Preenon Bagchi Department of Biotechnology and Microbiology Padmashree Institute of Management and Sciences, Padmashree Campus, Sy. No. 149, Kommaghatta, Sulikere Post, Kengeri, KARNATAKA-560060 Email: prithish.bagchi@gmail.com Mobile: 919986274603</p> <p>Dr. M. Anuradha Principal Biotechnology Padmashree Institute of Management and Sciences, Padmashree Campus, Sy. No. 149, Kommaghatta, Sulikere Post, Kengeri, BANGALORE URBAN DISTRICT-560060 pimsprincipal@gmail.com (Start date of the project may be intimated by name to the undersigned. For guidance, terms &amp; Conditions etc. Please visit <a href="http://www.serb.gov.in">www.serb.gov.in</a>.)</p>
5.	<p>Principal, Padmashree Institute Of Management And Sciences, Padmashree Campus, Sy. No. 149, Kommaghatta, Sulikere Post, Kengeri</p> <p>(Receipt of Grant may be intimated by name to the undersigned)</p>

  
(Dr. Thangaradjou T)  
Scientist E  
ttradjou@serb.gov.in

**No. DST/WOS-B/2017/331-AAS (G)**  
**Government of India**  
**Ministry of Science & Technology**  
**Department of Science & Technology**  
**KIRAN DIVISION**

Technology Bhawan  
 New Mehrauli Road  
 New Delhi-110016  
 Dated 11.03.2019

**ORDER**

**Sub:** Financial approval of the project under Women Scientist Scheme-B (WOS-B) entitled "**Utilization of silkworm waste for poultry and fish feed production: technology optimization and transfer to silk farmers**".

PI Dr. Umalatha, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benaguru-560060, Karnataka.

Sanction of the President is hereby accorded to the approval of the above mentioned project at a total cost of **Rs 31,74,000/- (Rupees Thirty One Lac Seventy Four Thousand Only)** for a duration of **3 years**. The detailed breakup of the grant for General (**Rs 28,34,000/-**) as well as Capital (**Rs 3,40,000/-**) Components are given below:

Sl. No.	Heads	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
<b>A.</b>	<b>Non-Recurring (Capital Items)</b>				
	Equipments: pH state, Extruder	3,40,000/-	-----	-----	3,40,000/-
<b>B.</b>	<b>Recurring(General)</b>				
	Fellowship for Ph.D@ Rs. 55,000/-	6,60,000/-	6,60,000/-	6,60,000/-	19,80,000/-
	Consumables	50,000/-	50,000/-	50,000/-	1,50,000/-
	Contingencies	25,000/-	25,000/-	25,000/-	75,000/-
	Travel	40,000/-	30,000/-	30,000/-	1,00,000/-
	Other Cost (For Field Testing)	1,00,000/-	1,00,000/-	1,00,000/-	3,00,000/-
<b>C.</b>	<b>Overhead</b>	77,000/-	76,000/-	76,000/-	2,29,000/-
<b>D.</b>	<b>Total of Recurring Grant (B+C)</b>	<b>9,52,000/-</b>	<b>9,41,000/-</b>	<b>9,41,000/-</b>	<b>28,34,000/-</b>
<b>E.</b>	<b>GRAND TOTAL (A+D)</b>	<b>12,92,000/-</b>	<b>9,41,000/-</b>	<b>9,41,000/-</b>	<b>31,74,000/-</b>

2. Sanction of the grant is subject to the conditions as detailed in website [www.dst.gov.in](http://www.dst.gov.in).

3. The sanction of the President is also accorded to the release of **Rs. 9,52,000/- (Rupees Nine Lac Fifty Two Thousand only)** under "General Component" to The **Principal, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benaguru-560060, Karnataka** being the first installment of the grant for the year 2018-2019 for implementation of the above mentioned project.

4. This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & technology, financial year wise Utilization Certificate (UC) in the proforma prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned / accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.

5. The grantee organization will have to enter & upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division. The subsequent/final installment will be released only after confirmation of the acceptance of the UC by the Division and entry of previous Utilization Certificate in the PFMS.

6. If the grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant.

7. The grant-in-aid being released is subject to condition that:-

(a) A transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/ Organization under the appropriate rules of the grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant.

(b) While submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grant under the project shall be considered only on receipt of the said documents.

Contd..p/-2

8. The Grantee Institute (GI) will maintain separate audited as per GFR 2017 Rule 230 (8) account for the project and the entire amount of grant will be kept in an interest bearing bank account. For Grants released during FY 2017-2018 and onwards interest and other earnings, against released Grant shall be remitted to Consolidated Fund of India, immediately after finalization of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with statement of expenditure/utilization certificate for considering subsequent release of grant/closure of project accounts. GI should also follow Rule 230 (17) of GFR 2017 concerning to reservation of SC/ST/OBC, if applicable.

9. DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without obtaining the prior approval of DST.

10 The Principal Investigator under Women Scientist Scheme is not permitted to withdraw any emoluments/ salary/fellowship from any other source/project either supported by DST or by any other funding agency.

11. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C& AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.

12. Due acknowledgement of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publications / media releases as well as in the opening paragraphs of their Annual Reports during and after the completion of the project.

13. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.

14. The expenditure involved is debit to Demand No.84, Department of Science & Technology for the year 2017-18.

3425 Other Scientific Research (Major Head)  
60 Others (Sub-Major Head)  
60.200 Assistance to other Scientific Bodies (Minor Head)  
68 Science and Technology Institutional and Human Capacity Building (Sub Head)  
01 Disha Programme for Women in Science  
68.01.31 Grants-in-aid General for the year 2018-2019 (Voted)  
(Previous: Disha Programme for Women in Science 3425.60.200.55.01.31)

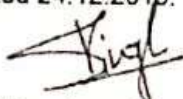
15. The amount of Rs. 9,52,000/- (Rupees Nine Lac Fifty Two Thousand only) will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to The Principal, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benagloru-560060, Karnataka. The bank details for electronic transfer of funds through RTGS are given below:-

Institute name : Padmashree Institute of Management & Science, Benagloru  
Bank Name : Bank of India  
Account No : 842310210000001  
Branch : RPCL Layout Vijay Nagar, Bangalore  
IFSC code : BKID0008423

16. The NGO DARPAN Portal Unique Id of Host Institute is KA/2017/0157033.

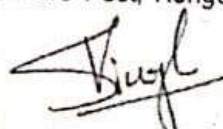
17. As per Rule 234 of GFR 2017, this sanction has been entered at S. No. 695 in the register of grants maintained in the KIRAN Division for scheme (KIRAN: WOS-B).

18. This issues with the concurrence of IFD Vide their Concurrence Dy.No/4328/2018-19 dated 24.12.2019.

  
(Vandana Singh)  
Scientist-E

Copy for information and necessary action to:-

1. The Director of Audit (CW & M-II), AGCR Building, IP Estate, New Delhi-110 002.
2. Copy with two spare copies of the sanction to the Drawing & Disbursing Officer, DST, Cash Section.
3. The Principal, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benagloru-560060, Karnataka.
4. Dr. M. Anuradha, Principal, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benagloru-560060, Karnataka.
5. Dr. Umalatha, Padmashree Institute of Management & Science, 149, Kommaghatta, Sulikere Post, Kengeri, Benagloru-560060, Karnataka.
6. Pay & Accounts Officer, DST, New Delhi.
7. IFD, DST, New Delhi.
8. Sanction Folder.

  
(Vandana Singh)  
Scientist-E



**RAMAIAH  
UNIVERSITY  
OF APPLIED SCIENCES**



The Catalysis Society of India

## Certificate of Appreciation

This is to certify that Prof./Dr./Mr./Ms./ O. J. Manjubhargavi  
from Bharathiya University, Coimbatore has won the Best AGS-Oral Presentation /  
ACS Poster Presentation award in the International Conference on Advances in Materials  
Research (ICAMR-2019) organized by Departments of Chemistry and Mechanical &  
Manufacturing Engineering, RUAS in association with Catalysis Society of India – Bangalore  
Chapter at Ramaiah University of Applied Sciences, on 25–27 July 2019.

Title of the Article: Synthesis Characterisation of New Polynucleating Ligands  
and their Biological Studies

Prof. Govind R. Kadambi  
Chairman - Organizing Committee, ICAMR-2019  
Pro-Vice Chancellor - Research  
Ramaiah University of Applied Sciences

Dr. T. Niranjana Prabhu  
Organizing Secretary, ICAMR-2019  
Head-Department of Chemistry  
Ramaiah University of Applied Sciences



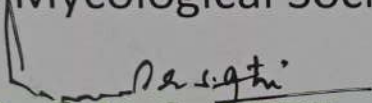
**National Conference on Recent Advances in Biodiversity, Biology and  
Biotechnology of Fungi &**

**46<sup>th</sup> Annual Meeting of the Mycological Society of India**

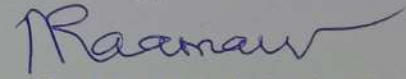
**7<sup>th</sup> to 9<sup>th</sup> November, 2019**

**Dr. M. J. Thirumalachar Young Scientist Award**

This is to certify that Dr./Mr./Ms. **D. V. SRIHARSHA** BANGALORE UNIVERSITY was selected for **Best Oral Presentation for Dr. M. J. Thirumalachar Young Scientist Award – II Prize** on 9<sup>th</sup> November, 2019 during the National Conference on Recent Advances in Biodiversity, Biology and Biotechnology of Fungi & 46<sup>th</sup> Annual Meeting of the Mycological Society of India held at Pondicherry University, Pondicherry.

  
**Prof. N. S. ATRI**

President, MSI

  
**Prof. N. RAAMAN**

Secretary, MSI

Issued under the seal of Mycological Society of India, Chennai, India



# INDIAN WOMEN SCIENTISTS' ASSOCIATION (IWSA)

Hyderabad Branch

## *Certificate of Recognition*

### IWSA's Nanik Gurnani Award

presented to

Dr./Mr./Ms. ....

*Chaitra H. M.*

of .....

has been awarded IWSA's Nanik Gurnani Award for the Travel / Innovation / Best Oral / Poster Presentation ✓

at the XIV Triennial National Conference of IWSA on "Women Led Science, Technology and Innovation"

held from 11<sup>th</sup> - 13<sup>th</sup> December 2019 at the ICMR-National Institute of Nutrition

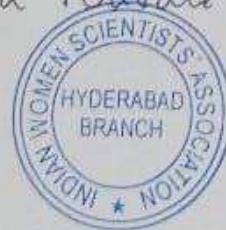
Hyderabad, Telangana State, India,

Title of the Presentation: .....

*Food and Nutrient Intake of Pre-Schoolers from an Anganwadi and a Private Institution in Kadajji Village*

*Sulatawani*

Convener



*Vijaya*  
11/12/19

Organizing Secretary



सत्यमेव जयते

प्रधान मंत्री  
Prime Minister

MESSAGE

It is heartening to learn that Sarvasumana Association is conducting the 7<sup>th</sup> International Conference on Public Mental Health and Neurosciences (ICPMN – 2020) on December 12-13, 2020. To bring together various stakeholders of the field through a virtual platform for a valued takeaway on the theme 'Functional Genomics of Mind' is laudable.

When we talk of fitness, it is as much about mental as physical. A healthy mind and a sound body are interlinked. Pace and stress of today's lifestyle are often viewed as a factor for the increasing number of lifestyle diseases across societies and nations.

The challenging times of Corona pandemic have brought the spotlight upon mental health issues and it is crucial to look into the issue with a wider perspective. Our emphasis must be on creating an environment of more openness and sensitivity while discussing the issue of mental health.

One effective way towards curing psychological ailments is not to be silent about depression and to discuss issues related to mental health with family members, friends and colleagues. Active lifestyle, Yoga and meditation can be of significant help in overcoming depression.

Yoga helps rejuvenate the body, mind and spirit and ushers in harmony and balance in everyday life. To include a special session of Yoga in the Conference is thoughtful.

Technology, as also medical advancements are constantly transforming the field of healthcare. We must leverage technology to conquer new frontiers in genomics and bioinformatics.

The gathering of experts at the online international Conference will surely discuss and analyse various issues and perspectives related to mental well-being and more. I am sure that the deliberations at the Conference will come up with a practical roadmap for larger benefit.

Best wishes for all success of the Conference.

(Narendra Modi)

New Delhi

अग्रहायण 20, शक संवत्, 1942

11<sup>th</sup> December, 2020

**Dr. Preenon Bagchi**

Executive Secretary

Sarvasumana Association

#168 A, 1<sup>st</sup> Cross, 1<sup>st</sup> Block

3<sup>rd</sup> Phase, BSK 3<sup>rd</sup> Stage

Bengaluru, Karnataka – 560085