


3.4.1 The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the-job training, research etc during the year

Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration	Duration	Nature of the activity	Link to the relevant document
1	My Story: Start up founder, owner, Marketing director & Innovator	(Organization, Ayush Group of companies, Nagrota) Name of Institutions Senior secondary schools of Himachal Pradesh)	NSS CLUB AND STUDENTS	2022-23	01 DAY	Collaborative	
2	World Youth Day	Collaboration with Municipal Council Jwalanukhi, 02/12/2022	NSS CLUB AND STUDENTS	2022-23	01 DAY	Collaborative	
3	National Pollution control Day	Collaboration with Social Justice and Empowerment Department, Jwalanukhi, H.P.	NSS CLUB AND STUDENTS	2022-23	01 DAY	Collaborative	
4	Awareness Rally on 'Drug Abuse'	<b>4 Patents filed in Collaboration</b>					
5	Phospholipid vesicular nanocarriers for topical delivery of tea tree oil in management of atopic dermatitis	(Collaboration with Dr. Dinesh Kumar Sharma, School of Pharmacy, Sanskriti University, Mathura Collaboration with Dr. Dinesh Kumar Sharma, School of Pharmacy, Sanskriti University, Mathura	DR. MS ASHAWAT, DR. PRAVIN KUMAR	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/patents/">https://www.laureateinstitute.in/patents/</a>
6	Piperine loaded lipid nanocarriers for management of atopic dermatitis	Collaboration with HKES's Matoshree Taradevi Rampure Institute of Pharmaceutical Collaboration with Central University, Himachal Pradesh	DR. MS ASHAWAT, DR. PRAVIN KUMAR	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/patents/">https://www.laureateinstitute.in/patents/</a>
7	In vivo balloon method for measuring uterine contractions of the uterus in wistar rats	Department of Pharmaceutical sciences, MRSPPTU, Bhatinda, Punjab and School of Pharmaceutical sciences, Central University of Punjab	DR. SANJAY KUMAR	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/patents/">https://www.laureateinstitute.in/patents/</a>
8	A polyherbal formulation as an immunity booster						

**Project with another Institute**

Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration	Duration	Nature of the activity	Link to the relevant document
9	Agro climatic zoning, good agricultural practices and quality mapping cultivation feasibility studies on medicinal plants in himachal Pradesh	Department of Pharmaceutical sciences, MRSPPTU, Bhatinda, Punjab and School of Pharmaceutical sciences, Central University of Punjab	DR. MS ASHAWAT	2022-23	TWO YEARS	Collaborative	
<b>4 Research Publications in Collaborations with other institutes</b>							
11	Hydrogels for localized drug delivery: A special emphasis on dermatologic applications	In Collaboration with School of Pharmaceutical Sciences, Amity University, NOIDA,	DR. SHAMMY JINDAL	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/paper-published/">https://www.laureateinstitute.in/paper-published/</a>
12	Overview: Impact of hydrogen sulphide on some advanced molecular modulators involved in cardiac hypertrophy	Department of Pharmaceutical sciences, MRSPPTU, Bhatinda, Punjab and School of Pharmaceutical sciences, Central University of Punjab	MIR SHIV KUMAR KUSHAWAHA	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/paper-published/">https://www.laureateinstitute.in/paper-published/</a>
13	Pharmacotoxic, preliminary physicochemical screening and antimicrobial activity of Lantana Camara	Lantana Camara in Collaboration with Himachal Institute of Pharmaceutical Education and Research, Kala, Naldun, Himachal Pradesh	MIR SHIV KUMAR KUSHAWAHA	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/paper-published/">https://www.laureateinstitute.in/paper-published/</a>
14	Development and Evaluation of Novel Aqueous Neem Leaf Extract A Parent contraceptive agent	Collaboration with VHS Purvanchal University, Jaunpur, UP,	MIR SHIV KUMAR KUSHAWAHA	2022-23	SIX MONTH	Collaborative	<a href="https://www.laureateinstitute.in/paper-published/">https://www.laureateinstitute.in/paper-published/</a>

  
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# INSTITUTION'S INNOVATION COUNCIL

IC202216219, ESTB. 28 JUNE 2022



Report on IIC Calendar Activity

On

**My Story: Start UP Founder, Owner, Marketing Director & Innovator for Ayush Group of Companies India**

**Name of Resource Person:** Er. Jitendra Sodhi

**Designation:** Chairman Cum Managing Director(CMD)

**Name of Institute/Company:** Ayush Group of Companies , Ayush Herb Pvt. Ltd, Ketav's Ayush Health Paradise

**Date of Program:** 16 Sep 2022

**Venue:** Conference Hall, Laureate Institute of Pharmacy-HP

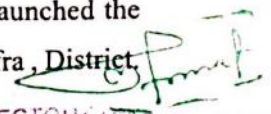
**Time:** 2:00-3:30PM

The function started with lamp lighting ceremony and Saraswati Vandana. **Prof.(Dr.) Mahendra Singh Ashawat** , Professor cum Director , Laureate Institute of Pharmacy and Covener of Institution's Innovation Council welcomed the resource person , **Er. Jitendra Sodhi** ,CMD, **Ayush Group of Companies** by presenting the bouquet. Prof. (Dr.) Amar Deep Ankalgi, NISP Co-ordinator welcomed Dr. Seema Santoshi .HOD Panchkarma, Ketav's Ayush Health Paradise , special guest by presenting the bouquet.

In his welcome speech, Prof. Mahendra Singh Ashawat welcomed the resource person and participants at Laureate institute . He highlighted the importance of Entrepreneurship and Start up to the participants.

**Prof. (Dr.) Amar Deep Ankalgi**, Professor and Head, Pharmaceutical Analysis and Quality Assurance Cum Pharmaceutical Chemistry , Laureate Institute of Pharmacy and NISP co-ordinator informed that **154 participants** registered for the event . He further elaborated about IIC constituted committee in LIPh and its function.

**Er . Jitendra Sodhi, eminent speaker** shared his overall journey to Participants as Innovator, Entrepreneur, Marketing Director to Managing Director. He explained about his challenges he faced during his stay in USA. He mentioned that there was huge demand of Ayurvedic formulation during 80's. He established Ayush Herbs Inc in USA in 1988 and launched the products in the year 1990. In the year 1994, He set the Ayurs Herbs Pvt Ltd in Kanfra, District

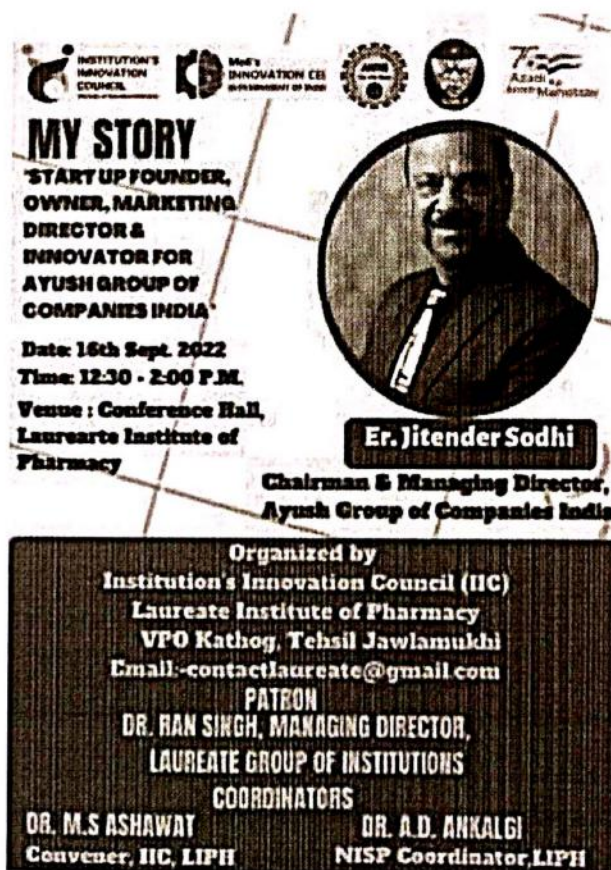
  
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IC202216219, ESTB. 28 JUNE 2022

At present, his company is manufacturing 200 herbs in the list of USDA organically certified NOP NOP. During his presentation, he showed the videos of his manufacturing unit. He provided the tips to the participants to never give up and mentioned that being the engineer by professions he succeeded as innovator in Ayurvedic formulations. He narrated his whole life journey as the student to recent CDM of big corporate having revenue in millions. There was an interactive session where he answered the queries of the participants.

**Professor (Dr.) CPS Verma**, Dean student Welfare delivered vote of thanks to the resource person, special guest, and all teaching and non teaching faculty members of Laureate Institute of Pharmacy and participants for making the event successful.

Flyer of the event:



**MY STORY**  
START UP FOUNDER,  
OWNER, MARKETING  
DIRECTOR &  
INNOVATOR FOR  
AYUSH GROUP OF  
COMPANIES INDIA


Date: 16th Sept. 2022  
Time: 12:30 - 2:00 P.M.  
Venue: Conference Hall,  
Laureate Institute of  
Pharmacy

**Er. Jitender Sodhi**  
Chairman & Managing Director,  
Ayush Group of Companies India

Organized by  
Institution's Innovation Council (IIC)  
Laureate Institute of Pharmacy  
VPO Kathog, Tehsil Jawalamukhi  
Email: contactlaureate@gmail.com

PATRON  
DR. RAN SINGH, MANAGING DIRECTOR,  
LAUREATE GROUP OF INSTITUTIONS

COORDINATORS  
DR. M.S ASHAWAT Convener, IIC, LIPH  
DR. A.D. ANKALGI NISP Coordinator, LIPH

  
DIRECTOR (IN CHARGE)  
LAUREATE INSTITUTE OF  
PHARMACY KATHOG  
TEH. JAWALAMUKHI  
DISTT. KANGRA (H.P.)

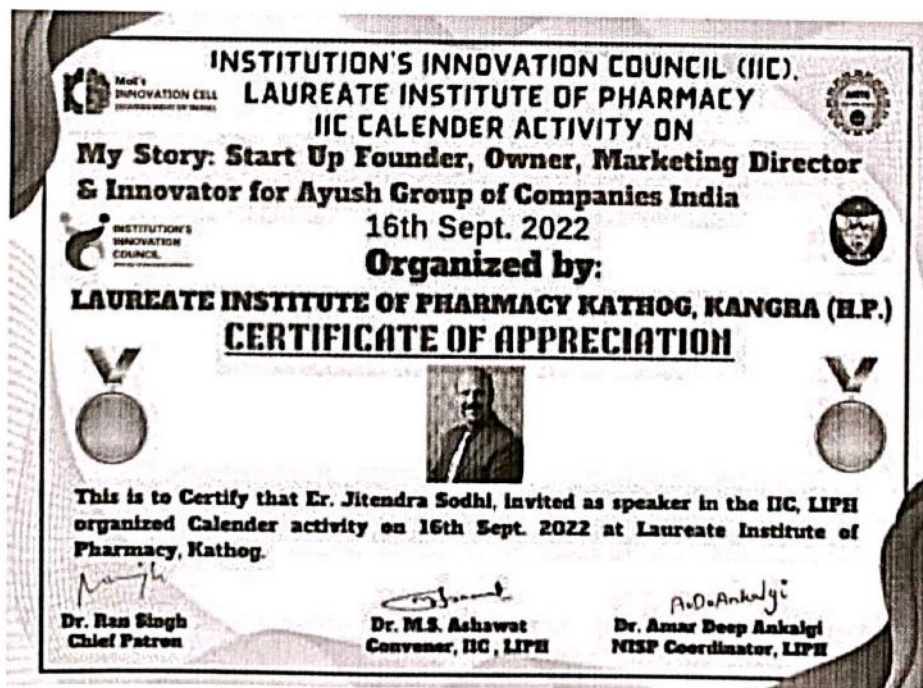
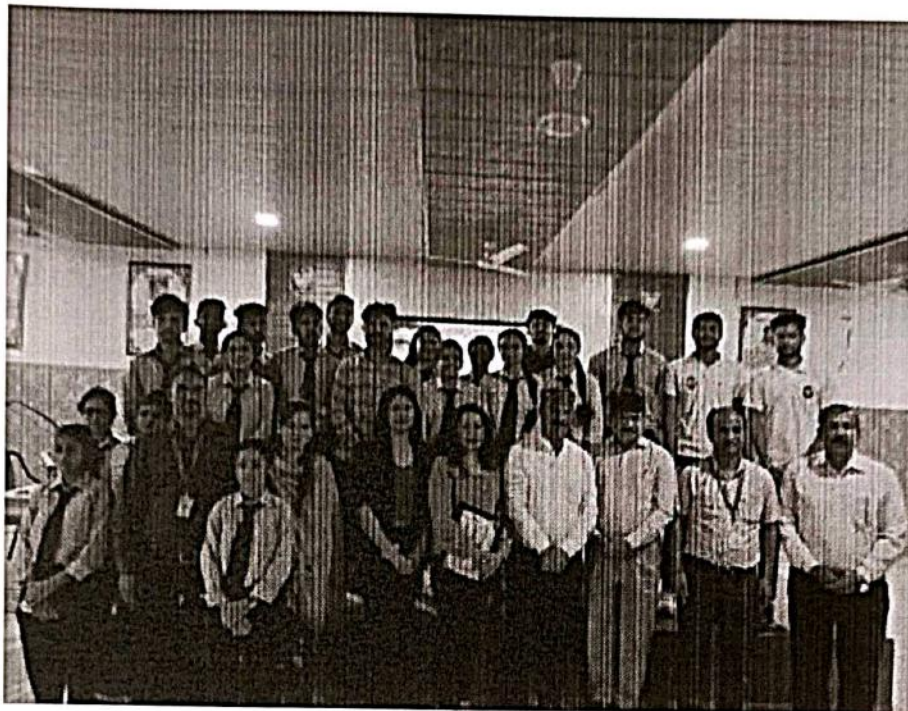


Glimpses of the event:



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*[Signature]*  
DIRECTOR CUM F.O.  
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You Tube Link: <https://youtu.be/Qg6HfjX2LjE>

News and Media: Hindi newspaper: Punjan Keshari 18 Sep 22



Sample Certificate distributed to participants:



IIC Calendar Activity On 'My Story: Start-Up Founder, Owner, Marketing Director & Innovator for Ayush Group of Companies India'

This is to certify that

Sonia

Laureate institute of pharmacy

Participated in IIC Calendar Activity on 16 Sep 2022 organized by Laureate Institution's Innovation Council(IIC) at Laureate Institute of Pharmacy ,IP.

*Dr. Ran Singh*  
**Dr. Ran Singh**  
Chief Patron

*Dr. M.S. Ashawat*  
**Dr. M.S. Ashawat**  
Convener, IIC, LIP

*Dr. Amar Deep Ankalgi*  
**Dr. Amar Deep Ankalgi**  
NISF Coordinator, LIP

ATTENDANCE SHEET:154 PARTICIPANTS (excel sheet enclosed)

*[Signature]*  
DIRECTOR  
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Date:.....

## Report on World Youth Day

Date: 9 January 2023

NSS unit of Laureate Institute of Pharmacy in collaboration with the Institutional Innovation Council of the institute organized a district level declamation program on world youth day. A formal invitation was sent to twenty-six schools.

- I. GSSS, Ghummer
- II. GSSS, Badoli Kohla
- III. GSSS, Dehra
- IV. GSSS, Khudian
- V. RNT School, Jwalamukhi
- VI. GSSS, Bathra
- VII. GSSS, Mazin
- VIII. GSS Girls School, Jwalaji
- IX. GSSS, Kathog
- X. GSSS, Muhal
- XI. Rosemerry Public School, Haripur
- XII. GSSS Boys, Jwalamukhi
- XIII. SBBSSS, Jwalamukhi
- XIV. GSSS, Nadaun
- XV. D.A.V. Dehra
- XVI. GSSS, Sehropain
- XVII. GSSSB, Pragpur
- XVIII. Adarsh SSS, Pragpur
- XIX. GSSS, Kutiaara
- XX. GSSS, Aerla
- XXI. GSSS, Baroh
- XXII. GSSS, Balduhak
- XXIII. GSSS, Bara
- XXIV. GSSS, Pirgaluhi
- XXV. GBSSS, Sujampur
- XXVI. Bal Gurukul PSSS, Kangoo

Thirteen students from different schools participated in the event. The event started at around 11:30 AM with a lamp lighting ceremony in the old seminar hall at laureate institute of Pharmacy.



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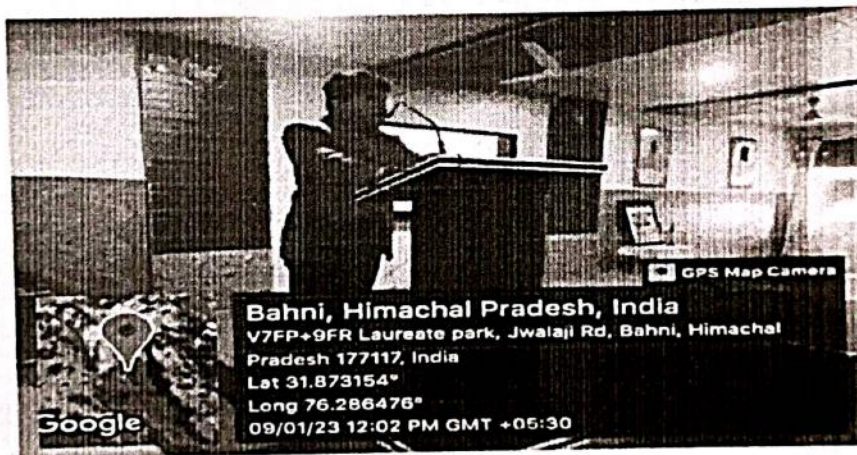
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Then the program was started with welcome speech by Prof. (Dr) M.S. Ashawat, Director cum Principal of Institute. Dr. M. S. Ashawat, Director cum principal addressed the students about Swami Vivekanand and their biography. They told to students about the youth power of the nation and use of this power in the right direction for the Nation building. In his speech they focused on following thoughts

"In any nation, the youth represent the most vital and dynamic population element. Statistics indicate that developing nations with youth populations might experience significant growth in all areas of their economies."



After that Each of the participants delivered their speeches on the topic of "Young Minds and Young Power for Nation Building." The two judges for the event were Ms. Upasana from LIPH and Mr. Satendra Kumar from GSSS, Kathog.

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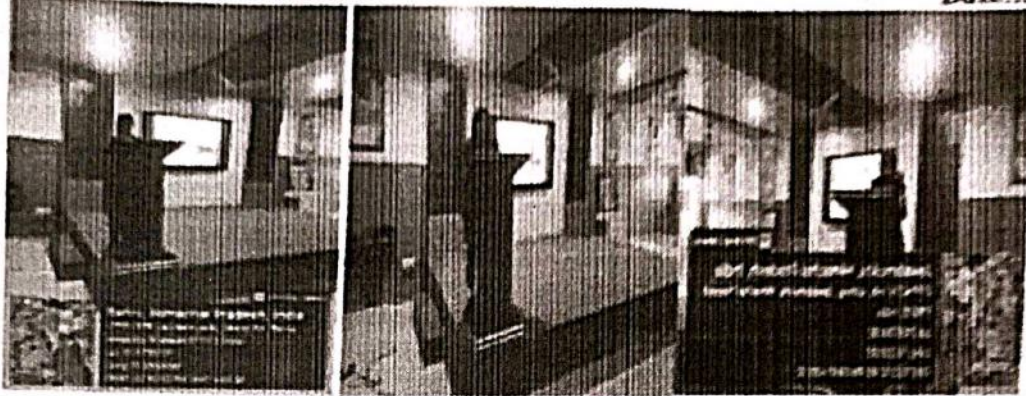
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After the completion of the declamations from the students, Judges awarded the participants with marks in accordance with their performance. At last, mementoes and certificate of participation were presented to the respective winners and all the participants.



Among all the students Mr. Pragya Dutt Laureate Global School got first prize. , Ms. Tammna Rana GSSS, Bharoli Kohala got second prize. Ms. Ojasavi Handa and Ms. Varsha, GSSS, Kathog got third prize. Dr. Ran Singh, Managing Director of LIPH congratulated all the participants and guided all the attendees with words of wisdom online. After that Mr. Devroop Sir from UPH, Kathog presented a vote of thanks to all the attendees. The function was ended with tea snacks and group photo.

  
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Media Cover



Amar Ujala 10 Jan 2023

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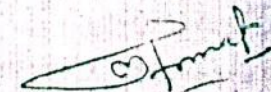
## प्रतियोगिता | Laureate फार्मसी संस्थान में जिला स्तरीय डेक्लामेशन प्रतियोगिता का आयोजन



कश्मीर स्थित #Laureate\_ Institute of Pharmacy की राष्ट्रीय सेवा योजना और इंस्टीट्यूशनल इनीवेशन कोसिल के सौजन्य से जिला स्तरीय डेक्लामेशन प्रतियोगिता का आयोजन किया गया।

जिसमें काँगड़ा जिला के लगभग 15 स्कूलों ने भाग लिया। संस्थान के निर्देशक एवं प्रधानाचार्य प्रोफेसर (डॉ.) एम एस आशावत ने छात्रों को अपने विचारों से स्वामी विवेकानंद और युवा दिवस के बारे में बताया। स्वामी विवेकानंद के जन्मदिन को युवाओं के लिए समर्पित करने की शुरुआत 1984 में ही गई थी। उन दिनों भारत सरकार ने कहा था कि स्वामी विवेकानंद का दर्शन, आदर्श और काम करने का तरीका भारतीय युवाओं के लिए प्रेरणा का एक बड़ा स्रोत हो सकते हैं। तब से स्वामी विवेकानंद की जयंती को राष्ट्रीय युवा दिवस के तौर पर मनाने की घोषणा कर दी गई।

कार्यक्रम के अंत में सभी विजेताओं को पुरुस्कार से नवाजा गया

  
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जिसमे लॉरेट ग्लोबल स्कूल के प्रज्ञा दत्त ने पहला स्थान, राजकीय वरिष्ठ माध्यमिक स्कूल भरोली की तम्मना ने दूसरा और राजकीय वरिष्ठ माध्यमिक स्कूल कथोग की ओजस्वी हांडा तथा वर्षा ने तीसरा स्थान डेक्लामेशन में हासिल किया।



लॉरेट फार्मसी संस्थान के प्रबंध निर्देशक डॉ. रण सिंह और डॉ सीपीएस वर्मा डीन स्टूडेंट वेलफेयर ने छात्रों को बधाई सन्देश दिया।

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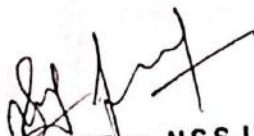
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## Report on National Pollution control Day

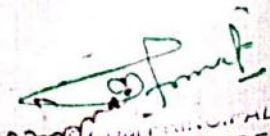
Date 02<sup>nd</sup> December 2022

NSS unit in collaboration with the IIC committee of the institute organised one day awareness program against pollution for the students and locals on the day of National pollution control day. The program was joined by around 60 people including both students and faculty of the institution. The awareness program started around 1 PM and it started with some slogans from our NSS unit volunteers.

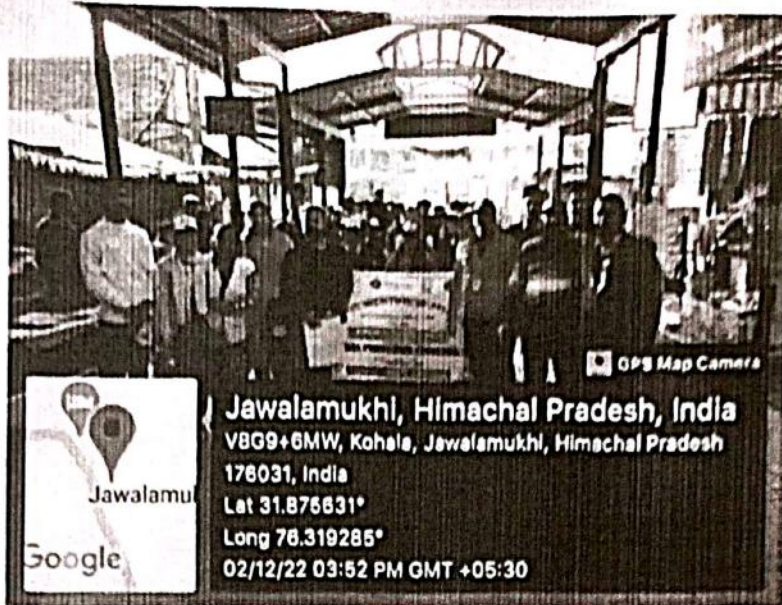


  
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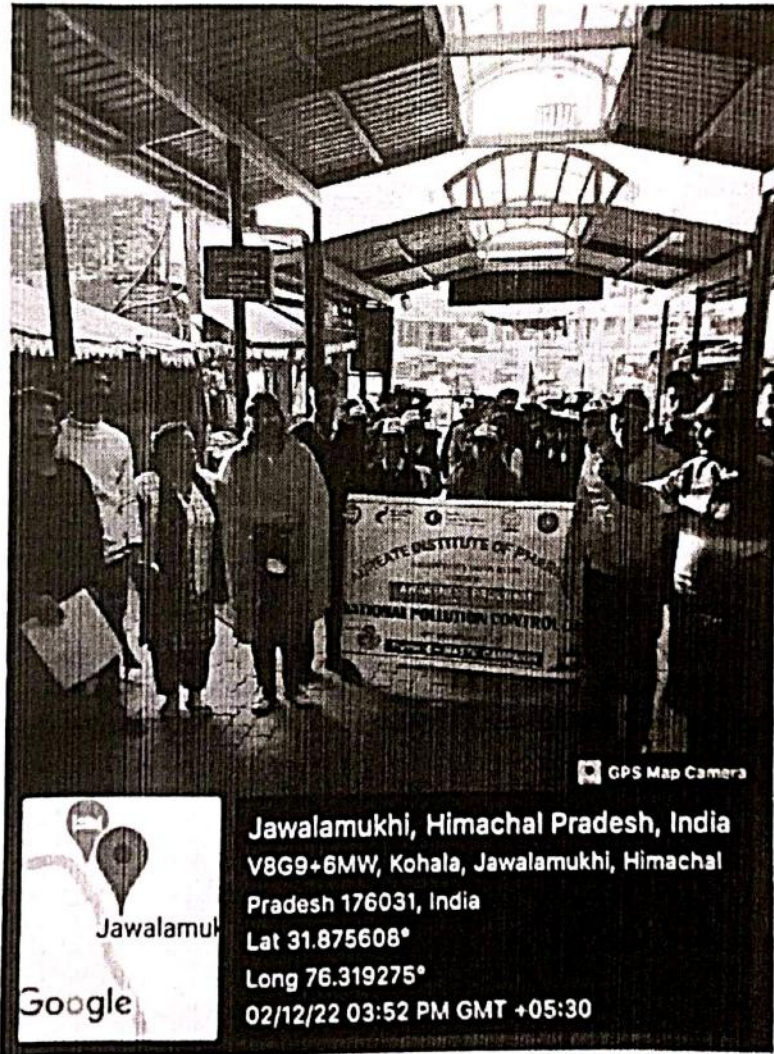


  
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Jawalamukhi, Himachal Pradesh, India  
V8G9+6MW, Kohala, Jawalamukhi, Himachal Pradesh  
176031, India  
Lat 31.876631°  
Long 76.319285°  
02/12/22 03:52 PM GMT +05:30

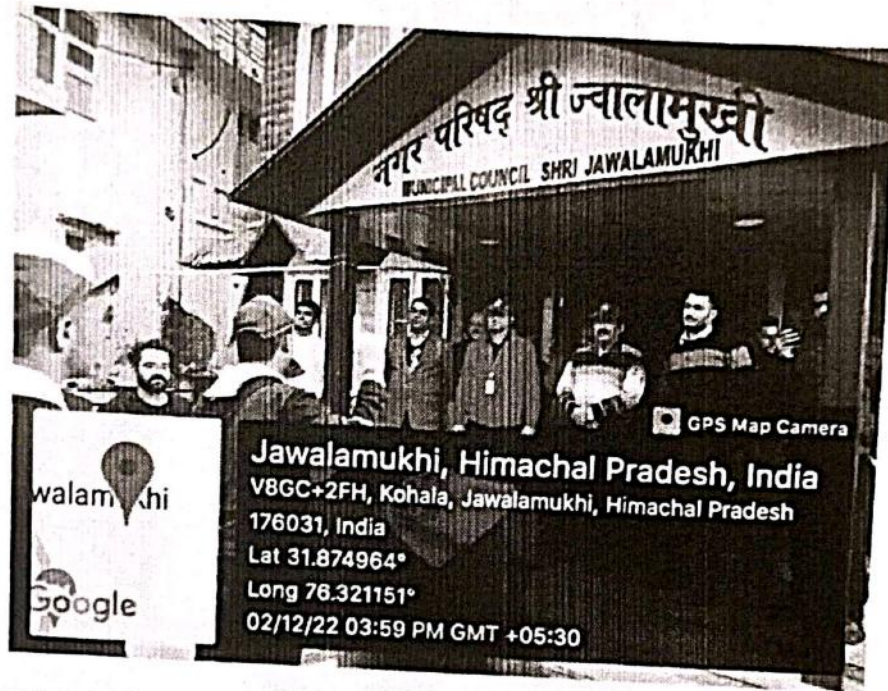


Jawalamukhi, Himachal Pradesh, India  
V8G9+6MW, Kohala, Jawalamukhi, Himachal Pradesh 176031, India  
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Long 76.319275°  
02/12/22 03:52 PM GMT +05:30

  
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Then Respected Director cum Principal Dr. M. S. Ashawat sir gave everyone a warm welcome for joining this initiative and introduced the attendees with the motive of this program (Awareness against Electronic Waste). After that brief introduction, the NSS Unit started the Rally with a few more slogans. They rose slogans all the way from the Institution to the Jwalaji market. The attendees went from the institution, first to the Municipal Corporation Jwalaji.



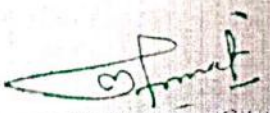
There we met with Execution Officer, Hitesh Kumar and he firstly thanked the Institution for the taking this initiative. Then he told everyone about "What E-Waste is?" and also briefly explained how electronic waste is managed in Jawalaji market. After that a Token of Appreciation was presented to the institute by the EO.

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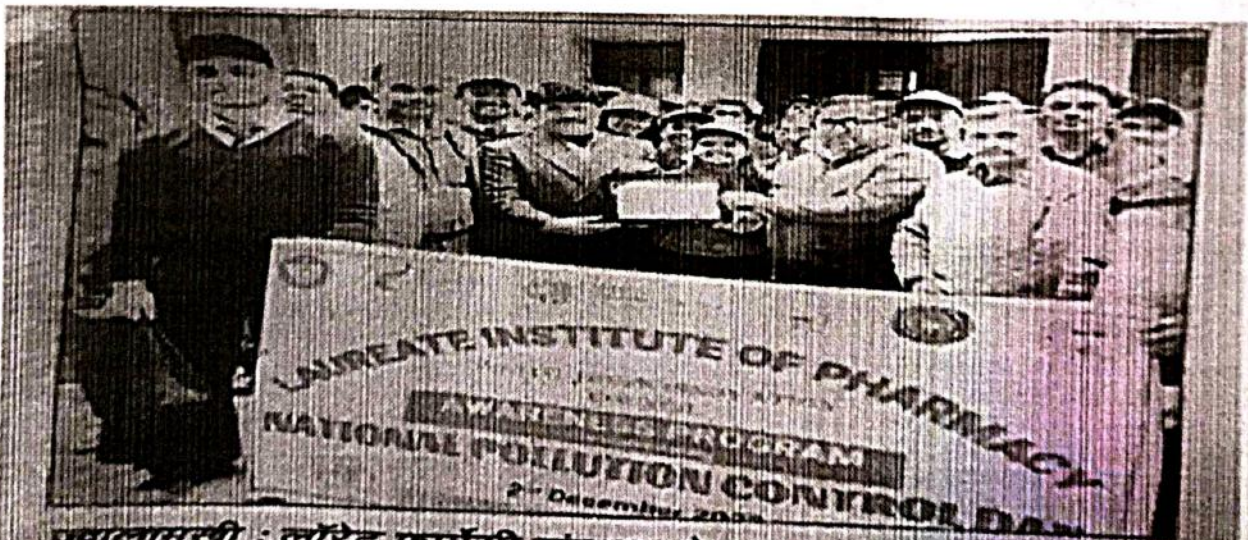
The attendees then moved to SDM Office while shouting their slogans continuously and also collecting any kind of E-waste from all the shops in the Market Area.

  
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After reaching the Jwalaji Tehsil, The SDM Jwalaji Manoj Kumar and DSP Chandra Pal Singh also appreciated the efforts of the institution with an appreciation award and guided the attendees about pollution problems and how to resolve them. The collective efforts of the students, the faculty, the IIC Members and NSS unit mad this awareness program successful.



ज्वालामुखी : लॉरेट फार्मसी संस्थान के छात्र और प्राध्यापक ।

## इलेक्ट्रॉनिक वेस्ट की हानियां बताई

ज्वालामुखी, 3 दिसम्बर (ब्यूरो) : उपमंडल ज्वालामुखी में कांठोग जिले के लॉरेट फार्मसी संस्थान ने राष्ट्रीय प्रदूषण रोषाघात दिवस के अवसर पर एक कार्यक्रम आयोजित किया। प्रधानाचार्य डा. एम.एस. अग्रवाल ने इस दिवस का मुख्य उद्देश्य लोगों को इलेक्ट्रॉनिक वेस्ट की हानियों और प्रति जागरूक करना था।

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**Municipal Council, Jawalamukhi, H.P.**  
**NATIONAL POLLUTION CONTROL DAY**

2<sup>nd</sup> December, 2022

**Certificate of Appreciation**

This is to certify that Laureate Institute of Pharmacy organize E-Garbage Management campaign for Jawalamukhi District Kangra, for the year 2022-2023. The institution has successfully elevated the E-garbage Management action plan. Awareness regarding pollution control, Sanitation Hygiene & Waste Management.

Executive Officer  
Municipal Council, Jawalamukhi



**Sub Division Office, Jawalamukhi, H.P.**  
**NATIONAL POLLUTION CONTROL DAY**

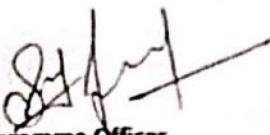
2<sup>nd</sup> December, 2022

**Certificate of Appreciation**

This is to certify that Laureate Institute of Pharmacy organize E-Garbage Management campaign for Jawalamukhi District Kangra, for the year 2022-2023. The institution has successfully elevated the E-garbage Management action plan. Awareness regarding pollution control, Sanitation Hygiene & Waste Management.

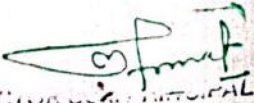
SDM Office  
Jawalamukhi, H.P.



  
Programme Officer  
Shammy Jindal



N.S.S. Officer - N.S.S. Unit  
Laureate Institute of Pharmacy  
Kathog Teh. Jawalamukhi  
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Affiliated to Himachal Pradesh Technical University, Hamirpur  
V.P.O Kathog, Tehsil Jawalamukhi, Distt. Kangra, H.P.(176031)

Ref. No. ....

Date: .....  
Dated: 24.06.2023

## Circular

This is to inform you all faculty members and students that on 26<sup>th</sup> June, 2023 an International Day against Drug Abuse organized by Department of social justice and empowerment Jawalamukhi and our NSS Unit of Laureate institute of Pharmacy Kathog will be active participant for this social cause. You all are requested to active participation in this camp. For the further enrolment, contact to In-charge Shammy Jindal: Dr. Shammy Jindal.



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V.P.O Kathog, Tehsil Jawalamukhi, Distt. Kangra, H.P.(176031)

Ref. No. ....

Date:.....

## Report on International Day against Drug Abuse

Date: 26<sup>th</sup> June 2023

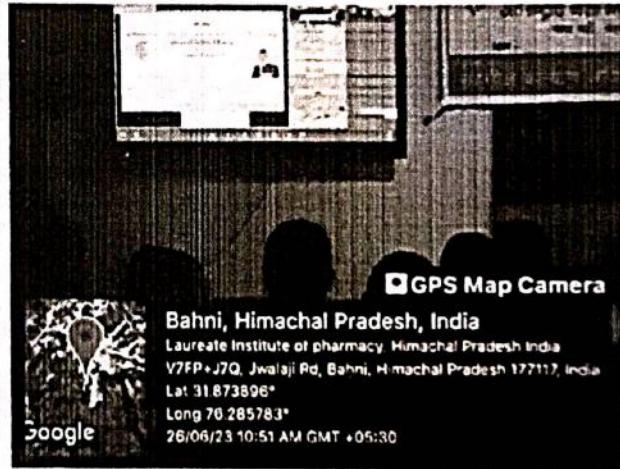
Venue: Laureate Institute of Pharmacy, Kathog and Kathog Village

Organized by: NSS Unit of Laureate Institute of Pharmacy

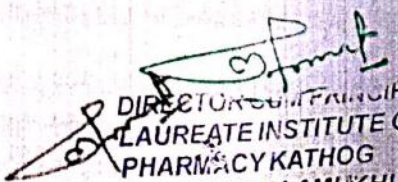
Collaboration with: Department of Social Justice and Empowerment,  
Jawalamukhi

### Introduction:

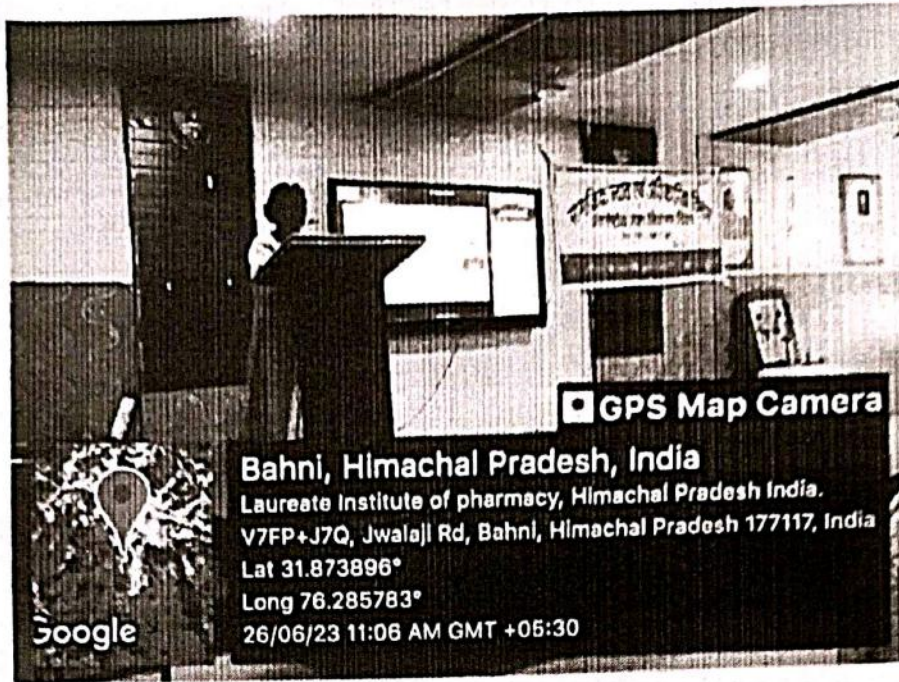
The NSS Unit of Laureate Institute of Pharmacy, in collaboration with the Department of Social Justice and Empowerment, Jawalamukhi, organized a comprehensive event to observe the International Day against Drug Abuse. The event aimed to



raise awareness about the detrimental effects of drug abuse and promote a drug-free society. The occasion witnessed active participation from both the academic and government sectors.

  
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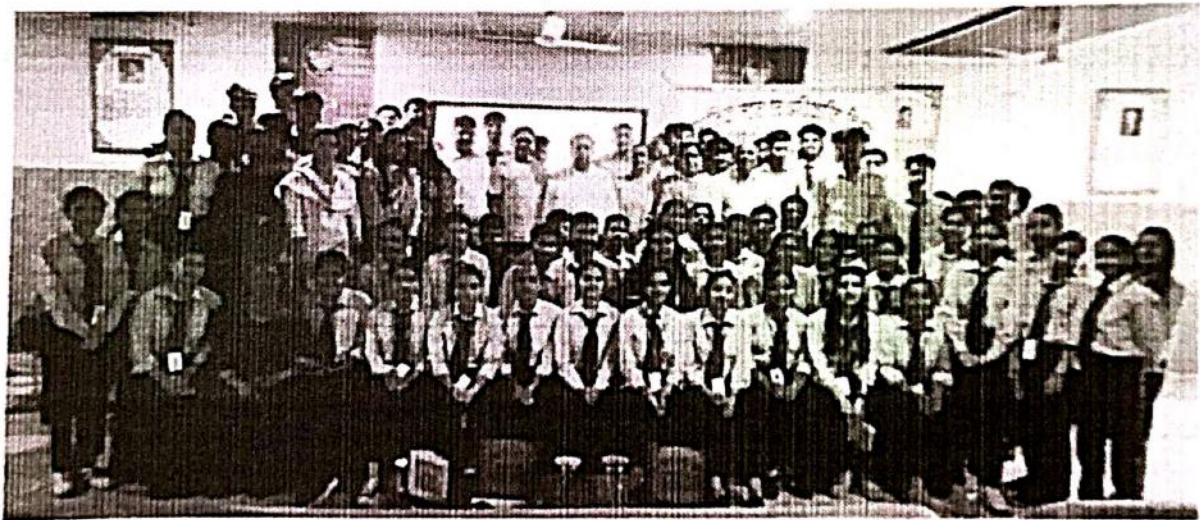
#### Seminar by District Welfare Officer:

The day commenced with an insightful seminar delivered by a district welfare officer of Social Justice and Empowerment, Jawalamukhi. The representative provided valuable information about the current scenario of drug abuse, its impact on individuals and society, and the role of government initiatives in combating this issue. The seminar emphasized the need for collaborative efforts to address the multifaceted challenges posed by drug abuse.



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### Awareness Rally in Kathog Village:

Following the seminar, NSS volunteers took the initiative to organize an awareness rally in Kathog village. The rally aimed to disseminate

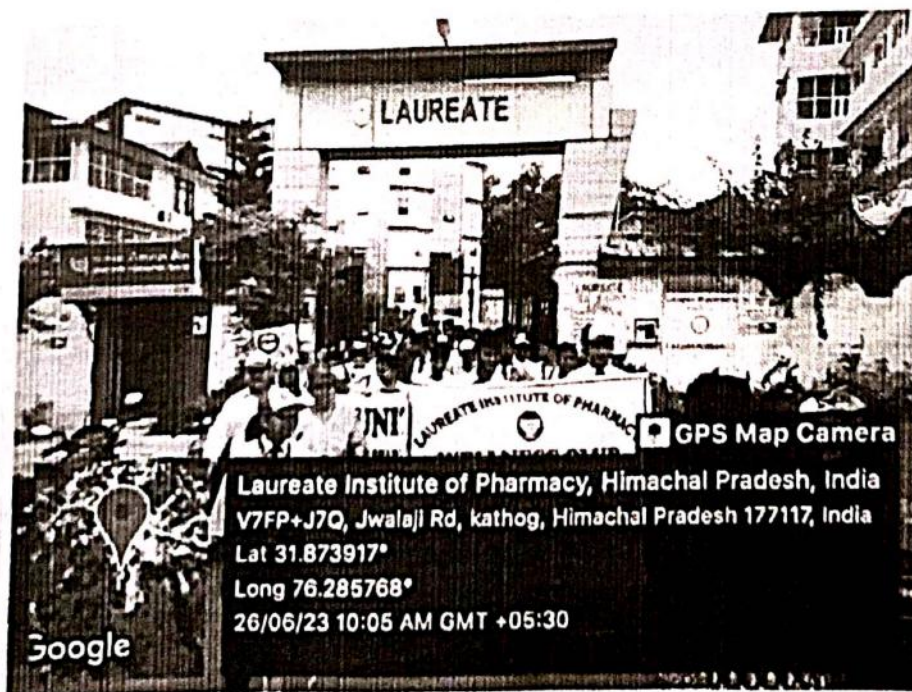


information about the harmful consequences of drug abuse and encourage the community to actively participate in creating a drug-free environment. The enthusiastic NSS volunteers, armed with banners and placards, marched through the village, engaging with residents and spreading the message of the International Day

Against

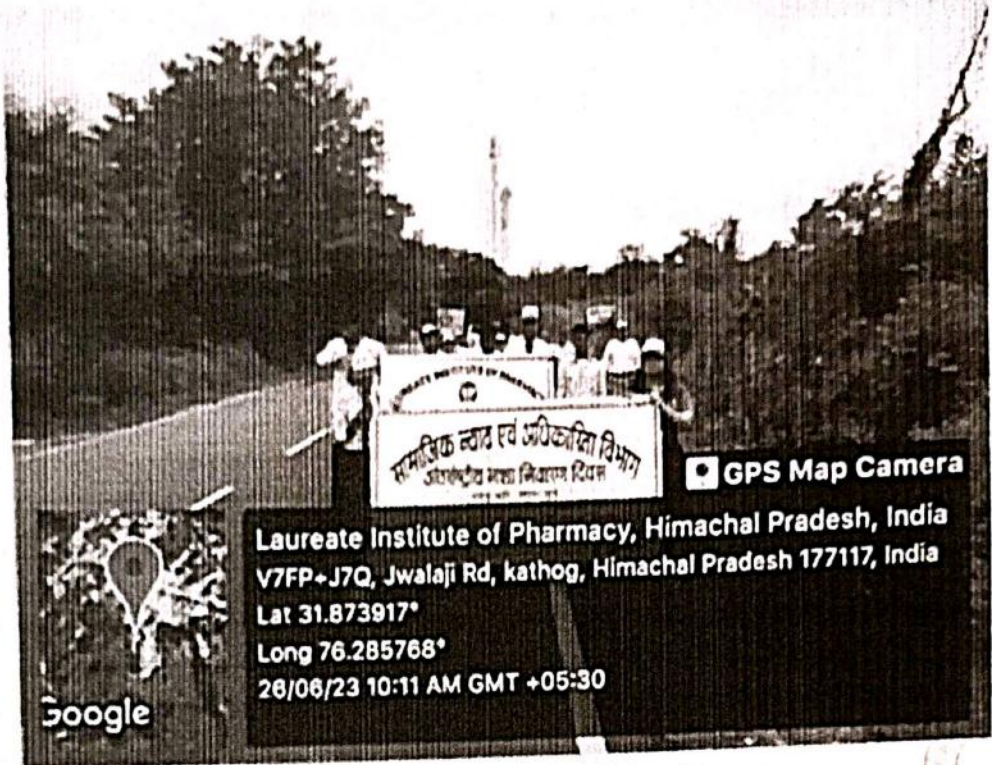
Drug

Abuse.



*[Signature]*  
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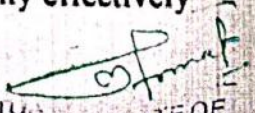


**Participation and Impact:**

Approximately 150 participants, including students, faculty members, and local residents, actively took part in the event. The engagement of the community in the rally was particularly noteworthy, with individuals expressing their commitment to eradicating drug abuse from their surroundings.

**Conclusion:**

The International Day Against Drug Abuse celebration organized by the NSS Unit of Laureate Institute of Pharmacy, in collaboration with the Department of Social Justice and Empowerment, Jawalamukhi, was a resounding success. The combination of an informative seminar and an impactful awareness rally effectively

  
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conveyed the message of the harmful effects of drug abuse. The event not only educated the participants but also inspired a sense of responsibility within the community to collectively combat the menace of drug abuse.

The NSS unit remains dedicated to promoting social awareness and contributing to the betterment of society through such impactful initiatives.

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.20234102997 A

(19) INDIA

(22) Date of filing of Application :26/04/2023

(43) Publication Date : 26/05/2023

(54) Title of the invention : IN VIVO BALLOON METHOD FOR MEASURING UTERINE CONTRACTIONS OF THE UTERUS IN WISTAR RATS

(51) International classification :A61B 050000, A61B 050300, A61B 174200, A61B 174350, G09B 232800  
(86) International Application No :PCT//  
Filing Date :01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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3)Dr. Amar Deep Ankalgi

4)Dr. Nripendra Singh

5)Dr. Ashok Malpani

Name of Applicant : NA

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5)Dr. Ashok Malpani

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(57) Abstract :

ABSTRACT IN VIVO BALLOON METHOD FOR MEASURING UTERINE CONTRACTIONS OF THE UTERUS IN WISTAR RATS The present invention discloses a method (100) for monitoring uterine contractions. The method (100) involves weighing and priming adult female rats with estradiol benzoate, followed by selecting rats in an oestrous phase. The method (100) further includes anesthetizing the rats, followed by inserting a saline-filled catheter with a small latex balloon into a lumen of the uterine of the rats and connecting the catheter to a pressure transducer and recording normal uterine contractions. Finally, the method (100) involves recording dose-dependent response of Oxytocin and AL. Figure 1

No. of Pages : 20 No. of Claims : 6

The Patent Office Journal No. 21/2023 Dated 26/05/2023

39320  
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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311005700 A

(19) INDIA

(22) Date of filing of Application :28/01/2023

(43) Publication Date : 03/02/2023

(54) Title of the invention : PIPERINE LOADED LIPID NANOCARRIERS FOR MANAGEMENT OF ATOPIC DERMATITIS

(51) International classification :A61K0009510000, A61K0009000000, A61K0031452500, A61K0047140000, A61K0047100000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

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3)Prof (Dr) Dinesh Kumar

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Address of Applicant : NA

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(57) Abstract :

The invention discloses piperine loaded lipid nanocarrier for management of atopic dermatitis and method of preparation. The piperine loaded lipid nanocarrier comprises of piperine; phosphatidylcholine; ethanol; an oil base comprising of cetyl alcohol, stearic acid, tween 80 and span 20; and an aqueous base comprising of propylene glycol, glycerine, methylparaben, propylparaben and distilled water. The piperine loaded lipid nanocarrier has high entrapment efficiency. The results of the drug release studies show that the drug release from the piperine loaded lipid nanocarrier was sustained for 24 hours. The results showed that the piperine loaded lipid nanocarrier were found to be optimum for inhibiting atopic dermatitis. The piperine loaded lipid nanocarrier were able to have maximum deposition of drug in skin layers. The high drug permeation of the piperine loaded lipid nanocarrier based cream was confirmed.

No. of Pages : 16 No. of Claims : 7

  
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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311007937 A

(19) INDIA

(22) Date of filing of Application :07/02/2023

(43) Publication Date : 10/02/2023

(54) Title of the invention : PHOSPHOLIPID VESICULAR NANOCARRIERS FOR TOPICAL DELIVERY OF TEA TREE OIL IN MANAGEMENT OF ATOPIC DERMATITIS

(51) International classification :A61K0009000000, A61K0047100000, A61K0047240000, A61P0017000000, A61Q0019000000  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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3)Prof (Dr) Dinesh Kumar

Name of Applicant : NA

Address of Applicant : NA

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3)Prof (Dr) Dinesh Kumar

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(57) Abstract :

The invention discloses phospholipid vesicular nanocarrier for topical delivery of tea tree oil in management of atopic dermatitis and method of preparation. The phospholipid vesicular nanocarrier comprises of tea tree oil; phosphatidylcholine; ethanol; a cream base comprising an oil base and an aqueous base, wherein the oil base comprising of cetyl alcohol, stearic acid, tween 80 and span 20, and wherein the aqueous base comprising of propylene glycol, glycerine, methylparaben, propylparaben and distilled water. Evaluation of the nanocarrier showed that phospholipid vesicular nanocarrier have potential for inhibiting atopic dermatitis. The phospholipid vesicular nanocarrier based creams showed acidic pH similar to normal skin, good stability, acceptable spreadability, and low potential for skin irritation. There was removal of erythema, edema, excoriations, and dryness in atopic skin. The high drug permeation of the phospholipid vesicular nanocarrier based cream was confirmed as the cream demonstrated enhanced penetration of stratum corneum and high deposition of tea tree oil in the epidermis and dermis.

No. of Pages : 16 No. of Claims : 7

  
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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311011797 A

(19) INDIA

(22) Date of filing of Application :21/02/2023

(43) Publication Date : 17/03/2023

(54) Title of the invention : A POLYHERBAL FORMULATION AS AN IMMUNITY BOOSTER

(51) International classification :A61K 361850, A61K 362200, A61K 391200, A61P 370400, B60N 022800  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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3) Dr. Indu Sharma  
4) Dr. Sushree Kumar  
5) Mr. Manoj Kumar Sharma  
6) Dr. Sanjay Kumar  
7) Dr. Amresh Kumar Singh  
8) Dr. Ajay Kumar Singh  
9) Mr. Arvind Kumar  
10) Mr. Akhil Moudgil  
11) Mrs. Kumari Varsha  
12) Dr. Rajeshwar Kamal kant Arya  
13) Mr. Raj K. Keservani  
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Address of Applicant :Associate Professor, Department of Physics Career Point University Hamirpur, Himachal Pradesh -----  
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5) Mr. Manoj Kumar Sharma  
Address of Applicant :Director, HM Solar Hamirpur Himachal Pradesh -----  
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(57) Abstract :

The present invention relates to a polyherbal formulation as an immunity booster comprising of *Tinospora cordifolia*, *Trigonella foenum-graecum*, *Cuscuta cymosa*, *Trachyspermum ammi*, *Foeniculum vulgare*, *Piper nigrum*, *Syzygium aromaticum* and ash, wherein the *Trigonella foenum-graecum* is fenugreek, the *Cuscuta cymosa* is cumin, the *Trachyspermum ammi* is carom seeds, the *Foeniculum vulgare* is bitter fennel, the *Piper nigrum* is black pepper and the *Syzygium aromaticum* is clove. Protein, fat and carbohydrate evaluation was done. These ingredients have potential as an immune booster as they provide synergistic effect. The feedback analysis showed that the formulation revitalizes the old methods of healing for a variety of conditions.

No. of Pages : 15 No. of Claims : 9

The Patent Office Journal No. 11/2023 Dated 17/03/2023

26091

  
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## Hydrogels for localized drug delivery: A special emphasis on dermatologic applications

Shammy Jindal, Rajendra Awasthi ✉, Kanya Goyal, Giriraj T. Kulkarni ✉

First published: 15 September 2022


<https://doi.org/10.1111/dth.15830>

### Abstract

Skin disease treatment is a complex and time-consuming process due to the complex etiology, numerous side effects of conventional therapies, and difficulties in determining primary causes of the disease. Superficial wounds are often easy to treat. However, treatment of severe wounds caused by burn is challenging for clinicians. Optimum therapeutic benefits are based on the site-specific delivery of medicaments at the right time for a prolonged duration. Systemic toxicity and frequent dosing are the major challenges associated with the use of conventional therapeutics. Hydrogels are material of choice for drug delivery because of their high biocompatibility and ability to hold and release therapeutic agents. The number of hydrogels available for use in cosmetology and dermatology continues to grow during the past 1–2 decades. However, new hydrogel materials with high biocompatibility, antibacterial properties, and the ability to stimulate skin regeneration processes are in high demand. These are three-dimensional networks, which absorb a large amount of biological fluids and water. Hydrogels can be used as a biosensor, carrier systems for cells, drug delivery carriers especially for topical applications and in contact lenses. Hydrogels are highly porous carriers containing about 90% water. Stimuli-responsive hydrogels cause a change in network structure that is completely reversible in nature. The present review describes the applications of hydrogels in pharmaceutical formulations with a special emphasis on the treatment of dermatologic conditions such as acne, psoriasis, and mycosis.

### CONFLICT OF INTEREST

All the authors declare that there is no conflict of interest.

  
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## Overview: Impact of Hydrogen Sulphide on Some Advanced Molecular Modulators Involved in Cardiac Hypertrophy

Shiv Kumar Kushawaha<sup>1,2\*</sup>, Manish Sinha<sup>1</sup>, Amar Deep Ankalgi<sup>1</sup>, Nripendra Singh<sup>3</sup>, Puneet Kumar<sup>4</sup>, Mahendra Singh Ashawat<sup>1</sup>

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<sup>3</sup> Department of Pharmaceutical Sciences, VBSP University, Jaunpur (UP) – 222002

<sup>4</sup> Department of Pharmacology, School of Pharmaceutical Sciences, Central University of Punjab, Ghudda, Bathinda- 151401

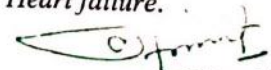
\*Address of Correspondence: Laureate Institute of Pharmacy, Kathog, Distt. Kangra, H.P.

Tel.: 91-889427458. email: [shiv.kushawaha@gmail.com](mailto:shiv.kushawaha@gmail.com).

### Abstract:

Pressure overload (aortic stenosis) induced myocardial hypertrophy is allied with a poor prognosis in humans. It leads to the development of cardiac arrhythmias, diastolic dysfunction, and ultimately congestive heart failure. Heart failure is a global pandemic disease, affecting an estimated 26 million people worldwide and more than 4 million in India. This poses a huge burden to both individuals and society. However, there is limited knowledge regarding the underlying molecular mechanisms. Therefore, we hypothesized that the various cellular signaling pathway is playing a key role in myocardial hypertrophy. In this review, we were highlighting that drug-like H<sub>2</sub>S can target these cellular signaling pathways and hold promise as a potential lead for therapeutic intervention. Furthermore, it includes the concerns associated with H<sub>2</sub>S based therapy. In literature, clinical trials suggest that H<sub>2</sub>S based therapy is beneficial in cardiac hypertrophy and other diseases. The realization of the biological importance of H<sub>2</sub>S in numerous cells, tissues, and organs is now shedding light on the pathogenesis of various human diseases and paving the way for innovative therapeutic interventions.

**Keywords:** Aortic stenosis; cellular Signaling; H<sub>2</sub>S; myocardial hypertrophy; Heart failure.

  
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DISTT. KANGRA (H.P.)



# PHARMACOGNOSTIC, PRELIMINARY PHYTOCHEMICAL SCREENING & ANTI-TERMITE ACTIVITY OF LANTANA CAMARA

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## ABSTRACT

**Objective:** The present article attempts to evaluate the physiochemical and preliminary phytochemical along with anti-termite activity using chloroform extract, methanolic extract, and ethanolic extract of dry *Lantana camara* leaves as well as flowers against the termites.

**Methods:** Different concentrations of the filtrate ranging from 1-5% were tested against termites and observed for 6 hours of exposure. The insecticidal effect was analyzed by observing and recording the death rate of termites.

**Results:** 1% methanolic, ethanolic, and chloroform extracts of leaves caused around 30%, 40%, and 80% mortality at 2hour exposure, and at 2%-5% caused 50-100% mortality in termites at various exposure periods. The chloroform leaf extract was most effective as an anti-termite agent, as 1% chloroform leaf extract resulted in 80% mortality at 2hour exposure and 2%-5% extract concentrations caused a mortality rate of 95-100% at various exposure periods, i.e., dose-dependent mortality was observed.

**Conclusion:** From these results, it was concluded that chloroform extract of *Lantana camara* could substantially protect from termite attack.

**Keywords:** *Lantana camara*, Physiochemical Properties, Pharmacognostic Parameters, Anti-termite Activity.

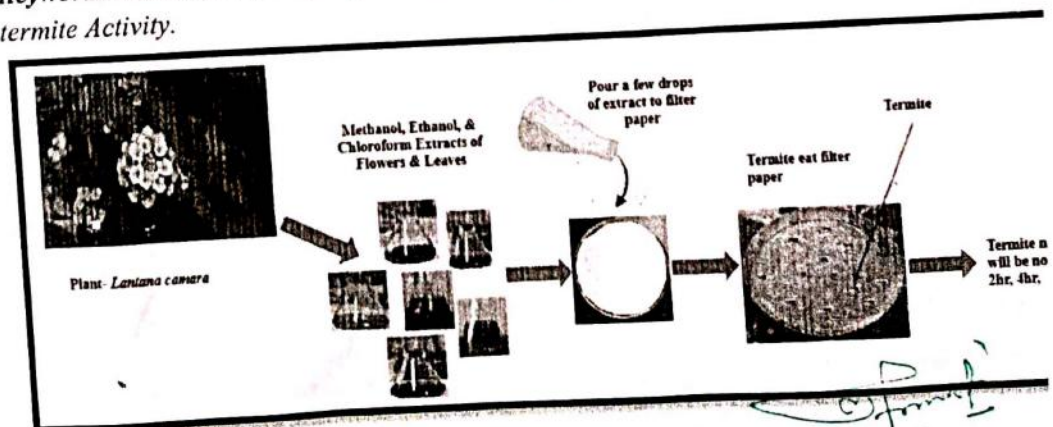


Fig. 1 Graphical Abstract

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Original Article

# Development and Evaluation of Novel Aqueous Neem Leaf Extract: A Potent Contraceptive Agent

Nripendra Singh<sup>1\*</sup>, Ritu Singh<sup>2</sup>, Surendra Singh<sup>3</sup>, Puja<sup>4</sup>, Sudhir K. Upadhyay<sup>5</sup>, Bharat S. Chaute<sup>6</sup>, Bhuneshwar Dutt Tripathi<sup>7</sup>, Yogesh Singh<sup>8</sup>, Srishti Tiwari<sup>9</sup>, Shriv Kumar Kushawaha<sup>10</sup>, Amit Kumar<sup>11</sup>

<sup>1,3</sup> Department of pharmacy, V.B.S. Purvanchal University, Jaunpur-222002, (U.P.) India.  
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<sup>8</sup> Sultanpur Institute of Pharmacy, Saifullaganj, Sultanpur U.P. India.  
<sup>9</sup> Laureate Institute of Pharmacy, Kathog, Distt. Kangra, H.P. India.  
<sup>10</sup> Tahira Institute of Medical Sciences, Gorakhpur, U.P. India.

## Abstract

In the midst of the global epidemics of both unwanted pregnancies and sexually transmitted infections (STIs), possibilities that provide protection with minimal side effects are ideal. Therefore demand is increasing for vaginal contraceptives which protect from infection too. The spermicidal activity was determined using a modified method of Sander and Cramer. The extract was mixed with sperm suspension containing sperm. The mixture was mounted on the stage of Polarized microscope for 20 s at 100x (oil immersion) and observed for motile sperm. The spermicidal activity of novel aqueous neem extract on rat spermatozoa was same as in case of human spermatozoa. The MEC of NANE was found to be 2.5 mg/ml and 5 mg/ml in rat and human spermatozoa respectively. The present study describes the simple, one step, novel method of extraction and evaluation of *in-vitro* spermicidal activity in rat spermatozoa and *in-vivo* contraceptive efficacy in female wistar rat. It may be concluded that prolonged and controllable drug delivery of neem constituents from mucoadhesive gel with various loading doses, is achievable and delivered dose in controlled manner for fertility control.

**Keywords:** Contraceptive; Neem leaf extract; Novel method of extraction; *In-vitro* spermicidal activity in human spermatozoa.

## Introduction

The population explosion is a global problem that poses significant threat to the quality of life, more particularly in the underdeveloped and developing countries. The key requirement to combat this grave situation is the availability of suitable contraceptive devices that people would adopt to control birth rate [1]. A number of contraceptive methods are available; however, acceptability of these methods has quite often been limited by their associated untoward side effects, failure rate or irreversibility. This prevailing situation demands the development of newer contraceptive options that should be simple, safe, reversible, cost-effective and, overall, that would be acceptable to the majority of the world population irrespective of culture, religion and race. Of the contraceptive strategies available, the barrier methods are the most commonly used option that has gained recent surge of interest because of its temporal use with possible

availability and easy usage [2]. Although male or female condoms used correctly and consistently is the only available method shown to be effective in preventing both unwanted pregnancies and STI/HIV infections, women often have little power to negotiate the use of condoms with their partners and are unable to protect themselves from nonconsensual coercive sex. The currently available spermicidal contraceptive formulations are effective, but their repeated use is


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avoidance of systemic effects, over-the-counter.

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Grant : 2022

Project :II

**Name of Project:** Agro-climatic zoning, good agricultural practices and quality mapping cultivation feasibility studies on medical plants in Himachal Pradesh


**Name of the Principal Investigator/Co-investigator:** Dr. Mahendra singh Ashawat

**Department of Principal Investigator:** Pharmaceutics

**Year of Award:** 2022

**Fund Provided:** 15 Lakhs

**Duration of Project:** 1 Year

  
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भारतीय सामाजिक विज्ञान अनुसंधान परिषद  
Indian Council of Social Science Research  
(शिक्षा मंत्रालय)  
(Ministry of Education)  
जेएनयू इंस्टीट्यूशनल एरिया, अरुणा असफ अली मार्ग  
JNU Institutional Area, Aruna Asaf Ali Marg  
New Delhi - 110067  
Website: [www.icssr.org](http://www.icssr.org)

SANCTION ORDER

F.No. G-39/21-22/ICSSR/RP

Dated: 20<sup>th</sup> June 2022

To,  
The Registrar  
Maharaja Ranjit Singh Punjab Technical University  
Dabwali Rd, Lal Singh Nagar, Bathinda,  
Punjab-151001

Sub:Sanction of Research Programme entitled "Agro-climatic Zoning, Good Agricultural Practices and Quality Mapping Cultivation Feasibility Studies on Medicinal Plants in Himachal Pradesh" to Dr. Ashish Baldi, Professor, Department of Pharmaceutical Sciences & Technology, Maharaja Ranjit Singh Punjab Technical University, Dabwali Rd, Lal Singh Nagar, Bathinda, Punjab.

Dear Sir,

1. The Indian Council of Social Science Research (ICSSR) considered the above Research Programme project submitted by Dr. Ashish Baldi, Co-Project Directors of the study are 1. Dr. Arun Chandan, Regional Director, RCFC-Northern Region-1, NMPB, Ministry AYUSH GOI, 1<sup>st</sup> Floor, CoEDG Building, Research Institute in Systems of Medicine (RIISM), Joginder Nagar, Mandi, Himachal Pradesh 2. Dr. Mahendra Singh Ashawat, Director-cum-Principal, Laureate Institute of Pharmacy, Himachal Pradesh Technical University Research Centre, Kathog, Jwalamukhi, Himachal Pradesh.
2. The study, as proposed by the researcher, is to be located at and financially administered by your institution as per the guidelines of this award.
3. The ICSSR has sanctioned a grant-in-aid of Rs.15,00,000 (Rupees Fifteen lakh only) for the above research project and the grant will be released as follows:

First instalment @40%	:	Rs. 6,00,000/-
Second instalment @ 20%	:	Rs. 3,00,000/-
Third instalment @ 10%	:	Rs. 1,50,000/-
Fourth Instalment @10%	:	Rs. 1,50,000/-
Final instalment @15%	:	Rs. 2,25,000/-
Publication Grant* @ 5-6%	:	Rs. 75,000/-
<b>Total</b>	:	<b>Rs. 15,00,000/-</b>
Overhead charges over and above 5% or maximum Rs.1,00,000	:	Rs. 75000/-

(\* to be retained by the ICSSR. ICSSR would publish it subject to the recommendation by the expert and relevant Committees for the purpose, from the overall budget, so to be retained by the ICSSR).

\*\*will be released on successful completion of project after evaluation.

(The break-up budget approved by the ICSSR of Rs.15,00,000/- is enclosed.)

4. The First installment of the approved grant-in-aid will be released after receiving the grant-in-aid bill duly filled in, stamped and signed by the Project Director as well as the affiliating organization. (GIB already received).
5. In case, the study involves survey research, the finalized schedules/questionnaires (2 copies) designed to elicit information should be sent to the ICSSR as per the following schedule:
  - a) If the schedule/questionnaire for eliciting information is as per standard questionnaire, these will have to be sent to ICSSR immediately,

*1.1 put up to Registrar Sir*  
*[Signature]*  
*27*

*[Signature]*  
DIRECTOR  
LAUREATE IN  
TEH. JAWALAN  
DISTT. KANGRA



1) The schedule/questionnaire for eliciting information are to be designed afresh keeping in view the requirements of the project, these will have to be sent to the ICSSR within a period of six months in any case.

6. The Second instalment will be released after receiving a satisfactory six/nine/ twelve months Progress Report (depending on the duration of the programme), simple statement of account of first instalment, published peer reviewed journal, signed minutes of the Advisory Committee approving progress made by the Project Director and recommending release of second instalment along with grant-in-aid bill towards the second instalment.
7. The Third instalment will be released will be released after receiving second Progress Report (depending on the duration of the programme), simple statement of accounts of the second instalment, signed minutes of the Advisory Committee approving progress made by the Project Director and recommending release of third instalment along with grant-in-aid bill towards the third instalment.
8. The fourth instalment will be released after receiving book length Final Report in soft copy (both word and PDF format), Executive Summary of Final Report in soft copy (both word and PDF format), 500 words abstract of the Final Report in soft copy, research papers published in peer reviewed journals duly acknowledging ICSSR, similarity index score sheet, simple statement of accounts of third instalment along with grant-in-aid bill towards the fourth instalment. Project Director is required to submit hard copies of the Final Report only after the confirmation from the ICSSR after incorporating the suggested changes. Such data or information relating to the research project as may be asked for by the ICSSR for preservation in its Data Archives should be given by the scholar.
9. The publication grant will be retained by the ICSSR & will be spent by the ICSSR Publication Division if the Final report is found publishable by an Expert Committee constituted by the ICSSR.
10. The scholar shall acknowledge support of ICSSR in all publications resulting from the project output (Research Paper, Books, Articles, Reports, etc.) and should submit a copy of the same to the ICSSR during its course and after completion.
11. Final instalment will be issued after receipt of recommendation of the expert for acceptance of the Final Report, Audited statement of accounts (AC) in prescribed format with utilization certificate (UC) in GFR-12A form for the entire approved project amount duly signed by the Finance Officer/Registrar /Director of the affiliating Institution, verification of all documents and decision on retaining of equipment and books etc. The institutions of which the accounts are not audited by CAG/AG, their utilisation certificate will be signed by the Finance Officer and a chartered accountant.
12. The Overhead Charges to the affiliating institution will be released after the Final Report has been accepted and documents verified by the ICSSR. The ICSSR reserves the right to change the affiliation if it is found that the affiliating institute is not co-operating with the scholar and it is not facilitating timely completion of the study.
13. The Project Director will ensure that the expenditure incurred by him conforms to the approved budget heads and relevant rules. Audited Statement of accounts with Utilization Certificate in GFR of 12A form is for the entire project amount approved for the project.
14. The University/Institution of affiliation will provide to the scholar office accommodation including furniture, library and research facilities and messengerial services. For this, the ICSSR shall pay to the University/Institution of affiliation overhead charges @5% over and above or maximum Rs.1,00,000 of the total expenditure incurred on the project only after successful completion of the project.
15. The Contingency Grant may be utilized for research and office assistance, books, stationary, computer cost, research assistance and the field work expenses of Project Director, Co-Project Directors and research personnel connected with the research work.
16. The overhead charges to the affiliating institution over and above @ 5% or maximum Rs.1, 00,000 will be released only after successful completion of the project after evaluation. The accounts and the Utilization Certificate will be signed by the Finance Officer/Registrar/Principal/Director in the case of accounts of the institution are audited by CAG/AG. Otherwise, they need to be signed by the Finance Officer and the Chartered Account.
17. The Director of the research project will be Dr. Ashish Baldi who will be responsible for its completion within 24 Months from the date of commencement of the project, which is 13<sup>th</sup> April 2022 as intimated by the scholar.

D. Anshu  
DIRECTOR CUM PRINCIPAL  
LAUREATZ INSTITUTE OF  
PHARMACY KATH



... periodic / final project report as per schedule with  
All grants from ICSSR are subject to the general provision of GFR 2017.

20. The Project Director will ensure that the expenditure incurred by him conforms to the approved budget heads. The grant-in-aid is subject to all the conditions laid down in the Indian Council of Social Science Research (ICSSR) Research Projects available in the ICSSR website [www.icssr.org](http://www.icssr.org)

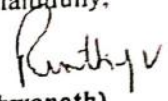
21. The expenditure on this account is debatable to the Budget Head-ICSSR (Scheme Code 0877); OH 31.09 Research Projects.

22. All project instalments will be transferred through Public Finance Management System (PFMS) and ICSSR shall implement the EAT module for ensuring transparency of expenditure at all levels and to ensure that there is no parking of funds.

23. As per MoE (Ministry of Education) instruction, the amount of grant sanctioned herein is to be utilized by the end of the project duration. Any amount of the grant remaining unspent shall be refunded to the ICSSR immediately after the expiry of the duration of the project. If the grantee fails to utilize the grant for the purpose for which the same has been sanctioned/or fails to submit the audited statement of expenditure within the stipulated period, the grantee will be required to refund the amount of the grant with interest thereon @ 10% per annum.

24. Any instalment release is subject to availability of grant, and satisfactory progress report of the scholar. Mere award of the study does not entitle the scholar for the release of any of the instalments.

Yours faithfully,



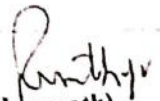
(Revathy Vishwanath)

For MEMBER-SECRETARY

Encl: as above.


Copy to:

1. Dr. Ashish Baldi, Professor,  
Department of Pharmaceutical Sciences & Technology,  
Maharaja Ranjit Singh Punjab Technical University,  
Dabwali Rd, Lal Singh Nagar, Bathinda,  
Punjab-151 001
2. Dr. Arun Chandan, Regional Director,  
RCFC-Northern Region-1, NMPB,  
Ministry AYUSH GOI, 1<sup>st</sup> Floor, CoEDG Building,  
Research Institute in Systems of Medicine (RIISM),  
Joginder Nagar, Mandi, Himachal Pradesh 175 015
3. ✓ Dr. Mahendra Singh Ashawat, Director-cum-Principal,  
Laureate Institute of Pharmacy,  
Himachal Pradesh Technical University Research Centre,  
Kathog, Jwalamukhi, Himachal Pradesh-177 101
4. Finance Branch, ICSSR, New Delhi
5. Record file



(Revathy Vishwanath)

For MEMBER-SECRETARY

  
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LAUREATE INSTITUTE  
PHARMACY  
JWALAMUKHI  
DISTT. KATHOG