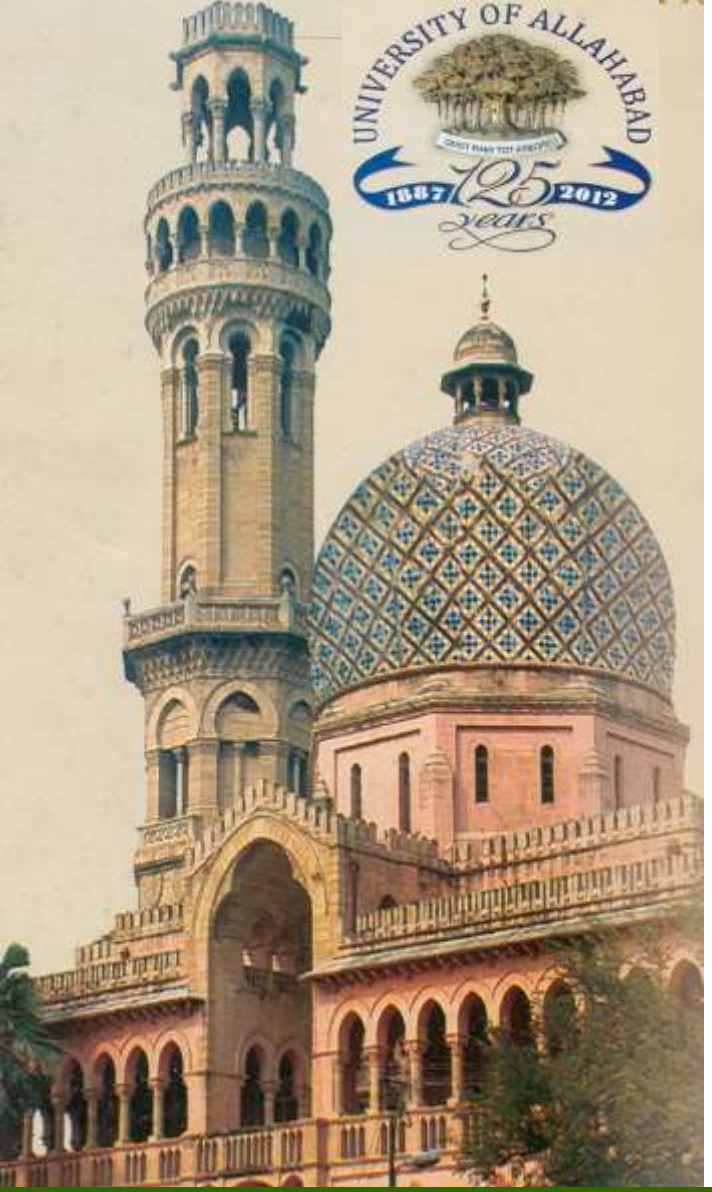


Design Innovation Centre
Spoke Partner

Rural Innovation Centre (RIC)

For

Agriculture, Animal and Human Health

Submitted by:

***Prof. Anupam Dikshit** FNASc.*

Coordinator, RIC
Head, Department of Botany
Coordinator, Centre of Rural Technology and Development
Coordinator, Environmental Sciences

Centre of Rural Technology and Development,

University of Allahabad, Allahabad-211002

Background of the proposal

To translate the concept given by former President of India, Dr. APJ Abdul Kalam, the PURA i.e., Providing Urban-amenities in Rural Areas; University of Allahabad recently established an independent Centre of Rural Technology and Development for training youth in Rural sector by way of adopting 04 Semester M.Sc. Post Graduate Programme which incorporates advancement of technological and social aspect of rural development under the Coordinator-ship Prof. Anupam Dikshit FNASc, Head, Department of Botany, University of Allahabad. India is a country of villages and farmers where more than 68 percent of its population lives in rural areas. Development process without inclusion of rural India is thus lop-sided and unsustainable. Rural development has always been prime impendence.

In this context, Design and Innovation Centre (DICs) by Ministry of Human Resource and Development (MHRD) will definitely act as a catalyst for **Innovation and Technological advancement for Rural Entrepreneurship**.

Prof. Anupam Dikshit is well acquainted with the procedure related with IPR which is reflected with the following

Prof. Dikshit has vast experience for developing technologies in agriculture, animal as well as human health. Based upon the successful innovation, he has been granted **First American, British, Japanese and Indian Patent** for collaborative work of University of Allahabad, M.L.N. Medical College, Allahabad with CIMAP, (CSIR), Lucknow for "***Antifungal formulation active against broad spectrum of dermatophytoses***" This was **the first patent from University of Allahabad**.

- **United States Patent** : 6,312,698 Granted on : 06 Nov. 2001
- **Japanese Patent** : 3304329 Granted on : 10 May 2002
- **Great Britain Patent** : 2360705 A Granted on : 24 Nov. 2004
- **Indian Patent** : 226628 Granted on : 22 Dec. 2008

First independent Patent of University of Allahabad was granted **(Patent No. 217897)** from Government of India and communicated on **July, 11 2008** by TIFAC of DST, New Delhi for development of Modified medium for the growth of *Malassezia* spp. the causal organism of Pityriasis Versicolor and dandruff under the heading " ***Modified culture medium and process thereof".***

On Feb.27, 2012 a new broad-spectrum liquid medium for antimicrobial assays has been filed for patent by using globally acceptable CLSI method against unicellular microbes under the title "***A culture medium for the growth of Malassezia* spp.*"* (App. No. 546/DEL/2012)** and published in Feb. 2013 as ***"New medium for rapid diagnosis and determination of antifungal testing against Malassezia spp.: A Potential Candidate for Industries"*** for facilitation of transfer of technology (tot).

Award for developing technologies for Rural Development to Prof. Anupam Dikshit *FNASc.* Recently visited Rastrapati Bhawan on March, 2016 for Exhibition of National Innovation Foundation in collaboration with ICMR.

"The GBPSSI Silver Jubilee Development Award"

to Organic Farming and Medical Plant Botany Department University of Allahabad

for their innovative contribution to developing technology towards the cause of Rural Development

DEVELOPMENT PROFESSIONALS' MEET-2005

On

Managing Technologies for Rural Development

Celebrating 25 years of academic excellence
Govind Ballabh Pant Social Science Institute,
Allahabad

Sanjeev Kumar
Registrar

Sunit Singh
Co-ordinator

R.C. Tripathi
Director

Vision

Rural development in India has witnessed several changes over the years in its emphasis, approaches, strategies and programmes and consequently, the program in India has assumed a new dimension and perspectives. Rural development can be richer and more meaningful only through the participation of clienteles of development.

Just as implementation is the touchstone for planning, people's participation is the centre-piece in rural development and is most pre-requisite both in terms of procedural and philosophical perspectives.

Thus, for the development planners and administrators it becomes important to solicit the participation of different groups of rural people, to make the plans participatory. Our program has been designed in accordance with the **“Law of Participation”** that aims to work with rural people and their communities to respond to social, economic, scientific and environmental challenges or opportunities to enhance the well-being, livelihood and character of rural areas.

Mission

The 1st batch of M.Sc. in Rural Technology and Development with the support of DIC will position the students as an innovative leader in the field, with practical experience in working with rural people and communities. The trained manpower will play a key role in engaging people, addressing rural issues and supporting community capacity as well as will try to put their innovative skills to improve the lives of rural people.

The Rural Technology and Business Incubator (RTBI) works towards: Doubling India's Rural GDP, Facilitating affordable technology development appropriate to the rural context, Enabling start-up entrepreneurs to build rural inclusive business models, Mediating between urban enterprise and rural potential through rural database and research, Building models of best practices in sector specific business incubation and Focus sectors include Agriculture, Health, Finance, Education, Vocational Training, Business Processing, Manufacturing and Information and Communication Technologies for rural India.

Centre where the project will be executed:

Centre of Rural Technology and Development, University of Allahabad, Allahabad-211002

Objectives

1. Identifying the local problem of Ramapur village of Bahadurpur block, Allahabad district and providing knowledge about basic as well as developmental aspects of rural development.
2. Improving the Agricultural scenario by the use of novel nano-biofertilizer for organic farming, integrated pest management, Cultivation of Medicinal and Aromatic Plants as well as developing farm equipments prototypes.
3. Developing innovative agro based rural industries/Industrial technologies such as Apiculture, Lac culture, Sericulture and bonsai making, Piggery, Goattery, Poultry and Rearing of ornamental fishes etc.
4. In animal husbandry, creating animal hostel for cattle and generating biogas as well as large scale milking, creating startup village entrepreneurship (SVEP).
5. In human health, developing innovative herbal, eco-friendly, sustainable ideas to improve hygiene, water quality, bio-toilets and waste disposals.
6. Making people aware of major sources of intellectual property for Agriculture, Animal as well as Human health ventures.
7. Learning and practicing a step-by-step idea generation culture for grass root level and organizing training camps for developing innovative skills for rural people from Allahabad and its adjoining areas via Agri mobile clinic.
8. The locals will be encouraged to take up the challenges and design a new innovative idea. They will be helped to execute the idea and attain the objective in an independent manner.
9. Developing skills for interdisciplinary collaboration and learning basics of licensing and partnership agreement to be an entrepreneur and developing communication and leadership skills.

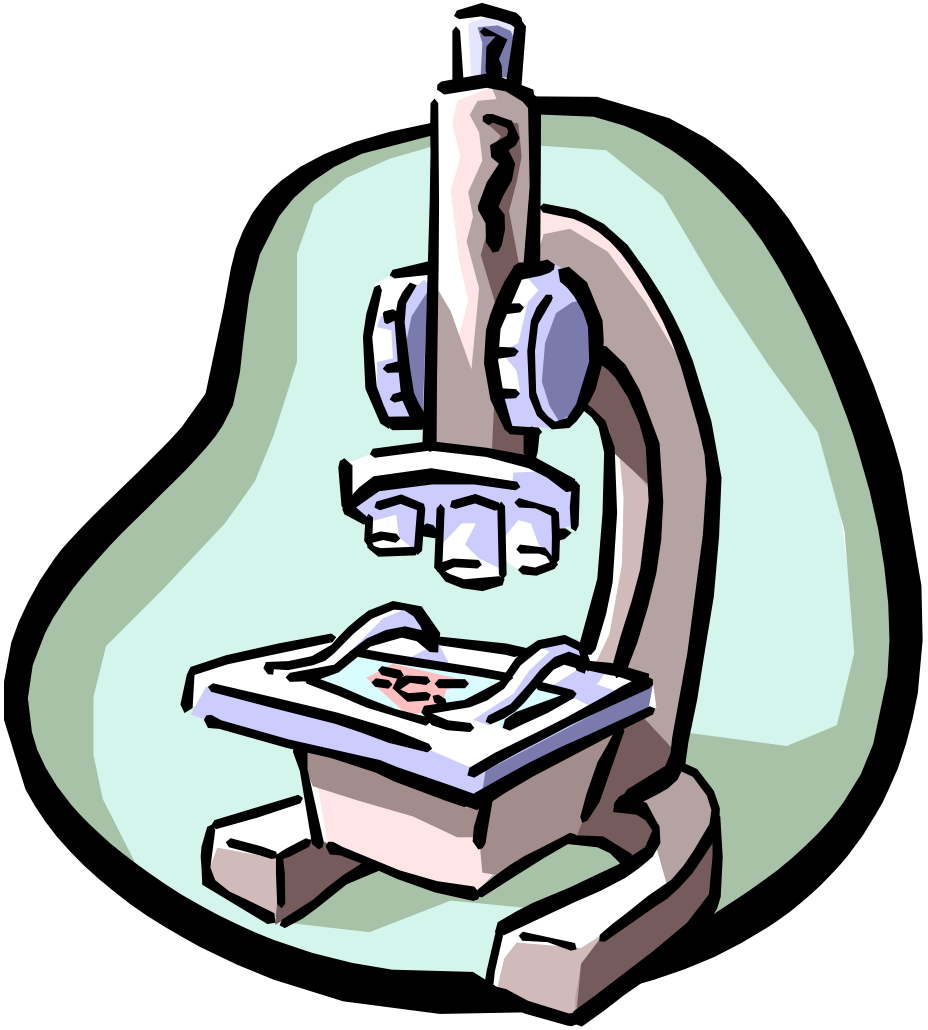
Deliverables

Particular	Details	1st year	2nd year	3rd year
New Ideas/process	Various ideas i.e new organic farming techniques, process standardization, optimizing new innovative techniques will be tested and tried for rural development. Viable and potential ideas will be scaled up.	1-2	2-3	3-4
Patents/IPR	Potential ideas, products, strains and process will be screened and attempted for registering the intellectual property and patenting.	1-2	1-2	2-3
Prototype	Various new models and prototype will be developed and tested in conjunction with the agricultural collaborators for sustainable agriculture and Rural entrepreneurship. Many of the prototypes will be standardized and optimized in nearest agricultural set up.	1	1-2	1-2
Note: The Centre of Rural Technology and Development, under Institute of Interdisciplinary Sciences (IIDS), University of Allahabad, has been recently established. The centre will attempt (better than mentioned above) to the best of its capacity.				

Reference:

1. **Prof. Anil Gupta**
   IIM Ahmadabad
2. **Dr. Vipin Kumar**
   Director, National Innovation Foundation, Ahmadabad

Need of the Hour: Scientific Intervention



प्रौद्योगिकी सूचना, पूर्वानुमान एवं मूल्यांकन परिषद् (टाइफैक)
(विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार)
विश्वकर्मा भवन, ए विंग, शहीद जीत सिंह मार्ग, नई दिल्ली – 110016 (भारत)
दूरभाष : (91) 011-26592600, 42525600, 26867764 फैक्स : (91) 011-26961158

TECHNOLOGY INFORMATION, FORECASTING AND ASSESSMENT COUNCIL (TIFAC)
(DEPARTMENT OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA)
VISHWAKARMA BHAWAN, A- WING, SHAHEED JEET SINGH MARG, NEW DELHI-110016 (INDIA)
Telephone : (91) 011-26592600, 42525600, 26867764, Fax : (91) 011-26961158

Suresh Kumar K
Scientist 'E'

(D) 20906012

T.I.(35)/TIFA/2001

July 11, 2008

Dear **Prof Harshe,**

Subject: Patent no. 217897
Patent application no. 735/DEL/2002
Entitled:- "Modified culture medium and process for the preparation thereof"

We are pleased to inform you that a patent entitled "Modified culture medium and process for the preparation thereof" has been granted in the name of your university. The same was based on the research carried out by Prof Anupam Dixit, Department of Botany. To our knowledge, this is the first ever granted to the University of Allahabad. A copy of the Patent Certificate issued in this regard is enclosed for your records. The original is being send to the PI for safe custody.

In this regard, I would also like to draw your attention to the fact that a patent is commercially tool for exploitation of an invention in commercially with a good degree of protection against illegal copying. However, for maintaining the patent, we need to pay some annual fees to the Patent Office. Non payment of such fees would result in patented technology falling into the public domain wherein any one would be free to exploit the invention without any licensing agreement whatsoever. Therefore, I would request you to look into the technology licensing of the patent technology. We would like to have your inputs regarding necessity of keeping the patent alive.

With kind regards,

Yours sincerely,

(Suresh Kumar K)

Congratulations. Dr. Dikshit. Please meet me. RL 18/7/08

Prof R G Harshe
Vice Chancellor
University of Allahabad
14, Chatham Lines,
Allahabad -211002

Dr Anupam Diskshit
Reader, Biological Product Laboratory
Department of Botany
University of Allahabad
~~Allahabad- 211002~~

Dr Dixit, Please keep the original in safe custody.

क्रमांक : 011 3646
Sl. No. :

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
पेटेंट प्रमाणपत्र
Patent Certificate
(Rule 74 of Patents Rules)

Patent No.	:	**217897**
Application No.	:	**735/DEL/2002**
Date of Filing	:	**11/07/2002**
Patentee	:	**UNIVERSITY OF ALLAHABAD**

It is hereby certified that a patent has been granted to the patentee for an invention entitled "MODIFIED CULTURE MEDIUM AND PROCESS FOR THE PREPARATION THEREOF" as disclosed in the above mentioned application for the term of 20 years from the 11 day of JULY 2002, in accordance with the provisions of the Patents Act,1970.

Date of Grant: 29/03/2008

Controller of Patents

Note.-The fees for renewal of this patent,if it is to be maintained , will fall / has fallen due on 11 day of JULY 2004 and on the same day in every year thereafter.

US006312698B1

(12) **United States Patent**
Shahi et al.

(10) **Patent No.: US 6,312,698 B1**
(45) **Date of Patent: Nov. 6, 2001**

(54) **ANTI-FUNGAL FORMULATION ACTIVE AGAINST A BROAD SPECTRUM OF DERMATOPHYTOSES**

(75) Inventors: **Sushil Kumar Shahi; Amritesh Chandra Shukla; Anupam Dikshit, Ashok Kumar Bajaj**, all of Allahabad; **Anil Kumar Singh, Sushil Kumar**, both of Lucknow, all of (IN)

(73) Assignee: **Council of Scientific and Industrial Research**, Rafi Marg (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.: **09/537,148**

(22) Filed: **Mar. 29, 2000**

(51) **Int. Cl.**[7] **A61K 35/78**
(52) **U.S. Cl.** **424/195.1**
(58) **Field of Search** 424/195.1

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Primary Examiner—Kevin E. Weddington
(74) *Attorney, Agent, or Firm*—BakerBotts, L.L.P.

(57) **ABSTRACT**

The invention provides a novel anti-fungal formulation active against a broad spectrum of dermatophytoses, said formulation comprising at least about 1% by weight of oil extracted from *Rubbasia melissoides* and one or more vegetable oils, solvents and additives.

31 Claims, No Drawings

हिन्दुस्तान

इविवि को मिला पहला स्वतंत्र पेटेंट

Hindustan Times

Invention to help in treatment of Pityriasis versicolar popularly known as 'Sehaun'

AU gets its first Independent Patent

HIGHLIGHTS

NORTHERN INDIA PATRIKA ALLAHABAD, SUNDAY, JULY 20, 2008

AU scientist gets Process Patent

EDUCATION REPORTER

ALLAHABAD: The silent revolution against diseases got new edge with scientists of Allahabad University receiving Process Patent for the developing medium capable helping in diagnosing the organism responsible for disease commonly known in dialect as Sehuan

Allahabad University's Botany Department added a golden feather to the cap of the 120-years old university by getting the first independent patent (No 217897) for a process developed indigenously in the Biological Product Laboratory of the department.

The information to this effect was conveyed in a communique received on July 17, 2008 from the Technology Information, Forecasting and Assessment Council (TIFAC), a helping in patent procedure and maintenance of patent database under the Department of Science and Technology (DST), New Delhi dated July 11,2008. Remarkably, the achievement is being hailed as the first Patent for a process known as 'Sehuan'".

"This is a disease in which hypho pigmentation occurs on the skin of the human beings and because of which it loses its natural texture. The skin gets marked with small white spots on the face and other parts of the body," he explained. Prof Dikshit, who is also a member of AU's Intellectual Property Rights Cell (IPRC), said that proper treatment of a patient suffering from this disease can be more effectively done if the causal organism can be cultured in a laboratory.

He said that the medium to culture this organism available in the market was too costly and had certain others limitation as well. While guiding his student to develop this medium Prof Dikshit visited London twice, first in 1996 and again in 2000. There he met Dr G Medgley at Institute of Dermatology at St Johns Hospital, London and who is considered to be an authority on Malassezia. But the medium used by her was not too costly but had a strong unpleasant vegetarian substances, removes the bad odour and is also low in cost. He said that medium will be very useful for the diagnostic labs of pathologists for the identification of casual organism of the disease, which will eventually help the dermatologists for prescribing proper medicine for the cure of this disease.

Apart from this, modified medium will also be of great help for various research labs. Earlier the Biological Product laboratory of the University of Allahabad, Botany Department, under Prof Dikshit has brought laurels to AU by getting first joint patent, which was a collaboration between Prof Dikshit, his two DPhil students Dr SK Shahi and Dr AC Shukla, along with Prof AK Bajaj, Former head of Dermatology Department of MLN Medical College, Dr Sushil Kumar and Dr AK Singh, former Director and scientist respectively of the Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow.

HT Allahaba

AU gets its first Independent pate

BOTANY

TIMES OF INDIA, ALLAHABAD
2008

TIMES

AU gets its first ndependent patent

TIMES NEWS NETWORK

ad: A scientist in the botany de- t of the Allahabad University awarded the first independent No. 217897) for a process devel- igenously in the Biological Prod- oratory of the department. achievement, been awarded to Dikshit, has been conveyed in nique received on July 17 from nology Information, Forecast- Assessment Council (TIFAC) of rtment of science and technol- T). atent has been granted follow- ent application titled 'Modified medium and process for the ion thereof', has been developed it and his research scholar Sid- butta. ling about the process Dikshit that this was a medium which elp in growing of a fungal or- nown as Malassezia, which was ible for the prevention of a dis- ed pityriasis versicolar, popu- own as sehuan. "This is a dis- which hypho pigmentation oc- the skin of human beings be- which it loses its natural tex-

Prof Anupam Dixit of AU along with his research scholars displaying the patent certificate

London, considered an authority on getting first joint patent, which was a

अमर उजाला

सेहुंआ का नहीं चलेगा जोर

मीडियम के लिए इविवि को मिला पहला स्वतंत्र पेटेंट

Team Members of
Biological Product Lab., Dept. of Botany, AU

Science can never END……

…….its always a BEGINNING

Thank you