

**DPU** **Dr. D. Y. PATIL COLLEGE OF PHYSIOTHERAPY**  
**Dr. D.Y. PATIL VIDYAPEETH, PUNE**

(Deemed to be University)

Accredited by (3rd Cycle) by NAAC with a CGPA OF 3.64 on a four point scale at with 'A++' Grade  
(An ISO 9001:2015 Certified University)

**3.3.1:GEOTAGGED PHOTOGRAPHS OF INNOVATIONS MADE**

**PATENT NAME :A Device For Vibration With Therapeutic Algometer**



Location : Latitude -18.625; longitude -73.825



(Dr. Tushar J. Palekar Ph.D.)  
Principal  
Dr. D.Y.Patil College of Physiotherapy  
Pune-18.

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**PATENT NAME** :System For Measuring Handgrip Strength And Pinch Strength



Location : Latitude -18.625; longitude -73.825

(Dr. Tushar J. Palekar Ph.D.)  
Principal  
Dr. D.Y.Patil College of Physiotherapy  
Pune-18.



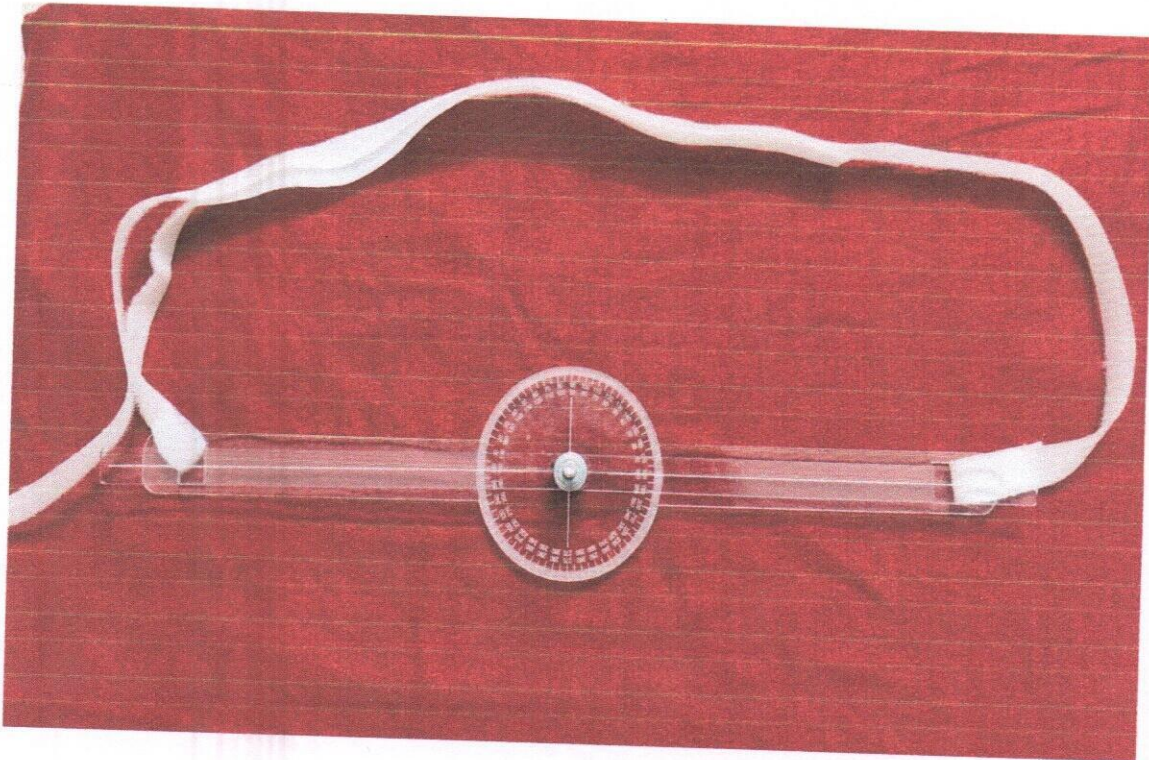


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**PATENT NAME:**A Frontal Plane Postural Assessment (FPPA) Device For Measuring  
Shoulder Level Symmetry



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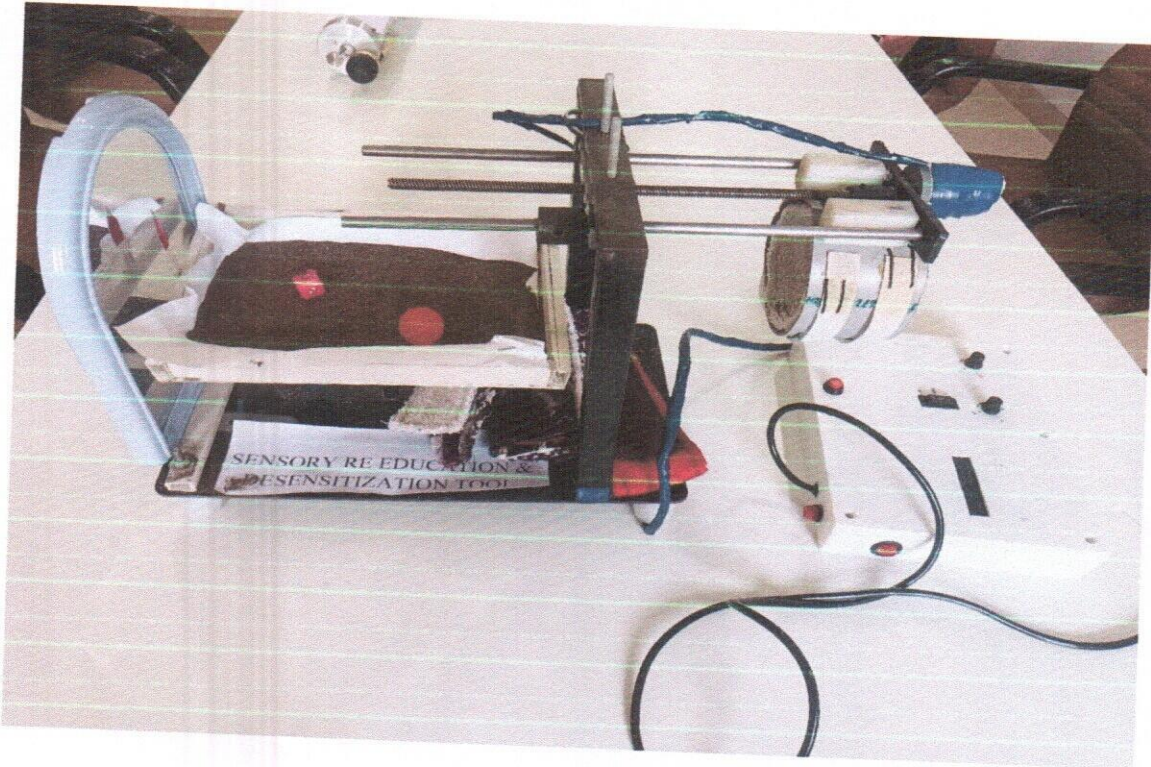


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**PATENT NAME :A Sensory Re-Education And Desensitization System**



Location : Latitude -18.625; longitude -73.825

(Dr. Tushar J. Palekar Ph.D.)  
Principal  
Dr. D.Y.Patil College of Physiotherapy  
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**DEVICE NAME :A DEVICE FOR VIBRATION WITH THERAPEUTIC ALGOMETER**



**(Dr. Tushar J. Palekar Ph.D.)**  
**Principal**

**Dr. D.Y.Patil College of Physiotherapy**  
**Pune-18.**





GPS	
Latitude	18: 37: 28.66999999999980...
Longitude	73: 49: 30.0200000000001857
Altitude	573.27430744160779

**Title of the Patent:**

Response Analyzer of Sensory Motors Interaction (RASMI)

**Patent Application No.:** 202021041325 A**Name of the Inventor:**

1. Dr. Manisha Ashish Rathi
2. Dr. Bhavana Ambudkar



GPS	
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Altitude	573.92105868814724
File	

**Title of the Patent:**

Stimulation Reaction Chronograph


**Patent Application No.:** 202021041326 A**Name of the Inventor:**

1. Jennel Roberts
2. Dr Mayura P. Deshmukh
3. Leo Xavier Loui
4. Harshal Suryavanshi
5. Dr Tushar J. Palekar



- **Title of the Patent:** A cutaneous punch biopsy instrument with an attached base cutter and tissue retention system
- **Patent Application No.:** E20212036426
- **Name of the patenter:** Dr Aayush Gupta, Dr. D.Y.Patil Medical College, Hospital and Research Centre, Pune.

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(Dr. A. N. Suryakar)  
Registrar  
Dr.D.Y.Patil Vidyapeeth  
(Deemed to be University)  
Pimpri, Pune- 18.




# Products developed/In pipeline: Probiotics for poultry

## Avapro Product label

AVAPRO SUPPLEMENT FACTS	
Weight: 1 Packet ( ___ g)	
<i>Lactobacillus fermentum</i>	2.5X10 <sup>10</sup> CFU/g
<i>Lactobacillus plantarum</i>	2.5X10 <sup>10</sup> CFU/g
Pectin	
β-carotenoid	
Sorbitol	
Ascorbic acid	
Citric acid	



  
(Dr. A. N. Suryakar)  
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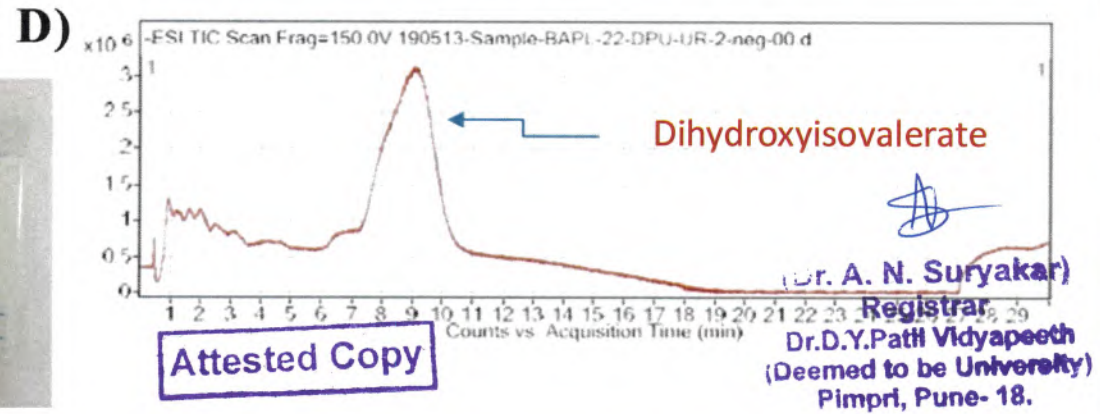
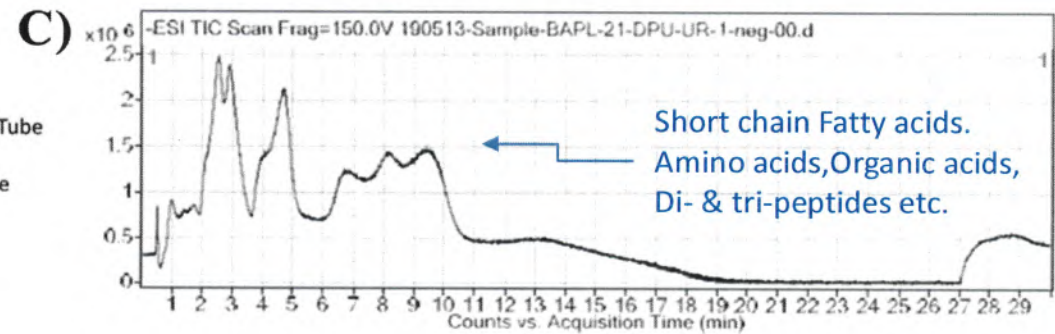
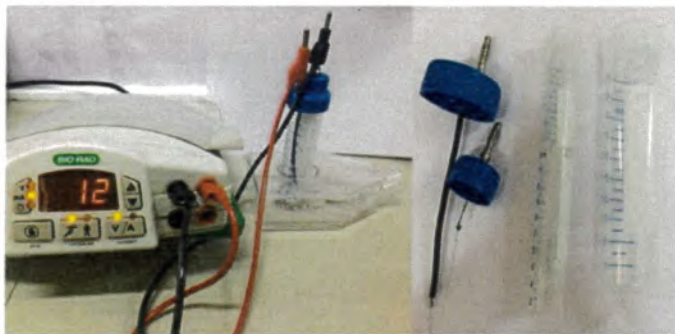
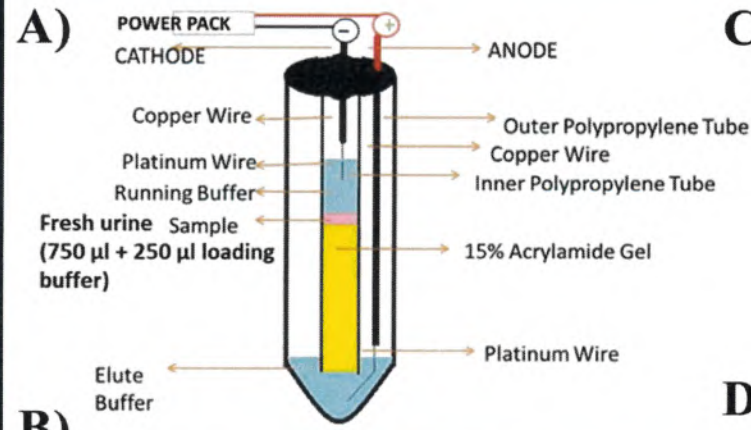
**Directions:** For best results, take entire content of the sachet and mix with ( \_\_\_ kg) of organic feed/ standard feed/ water ( \_\_\_ L) and use immediately

Presently the product is licensed to “Agroinnovations India Pvt.

Attested Copy Ltd.”



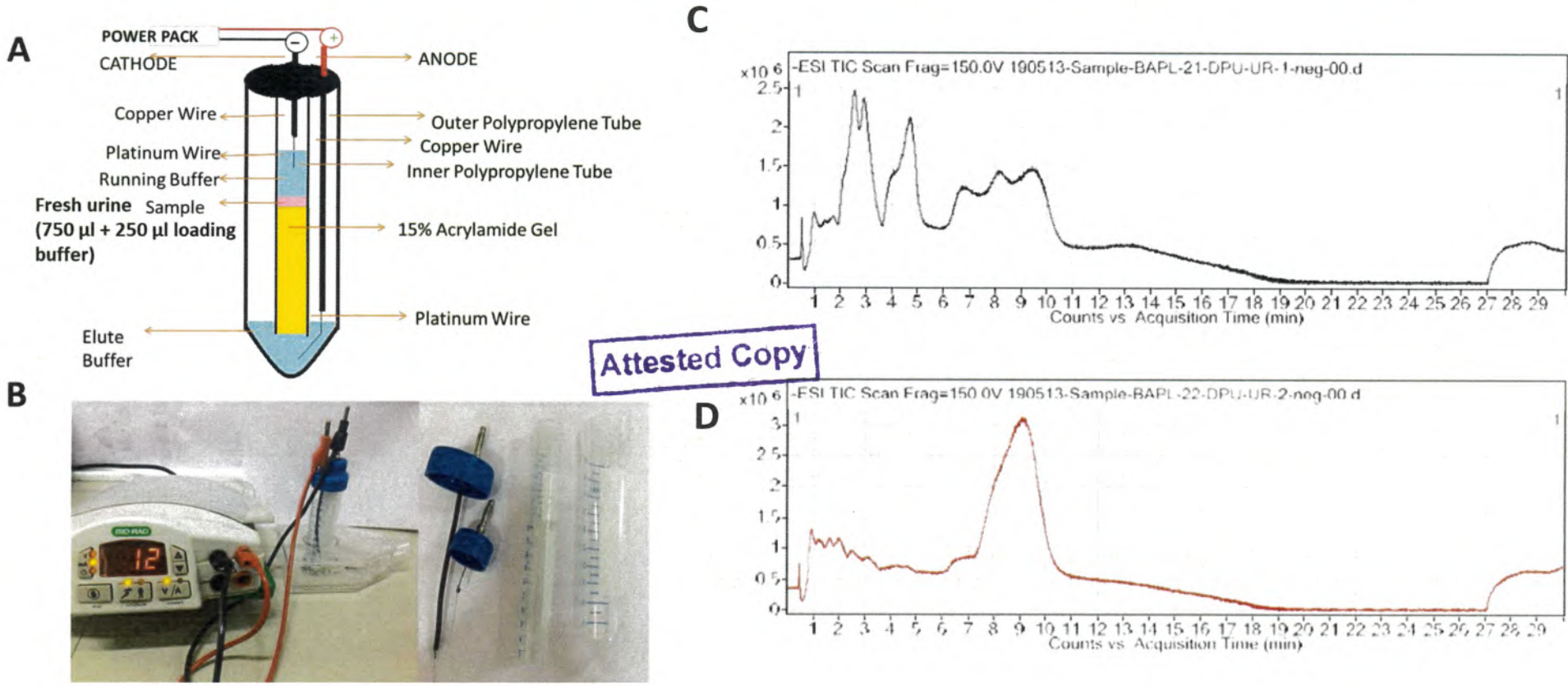
# A Simple Device In Cancer Biomarker Discovery



**A prototype model of Vertical Tube Gel Electrophoresis (VTGE) to aid in biomarkers discovery in cancer. (A). A flow design of VTGE. (B). A working model of VTGE. (C) LC-HR-MS based total ion chromatogram of urine metabolites of healthy person. (D) LC-HR-MS based total ion chromatogram of urine metabolites of oral cancer patient. (Indian Patent Application Number no: 201921000760; 01/03/2019).**



# A simple device in Cancer Biomarker discovery



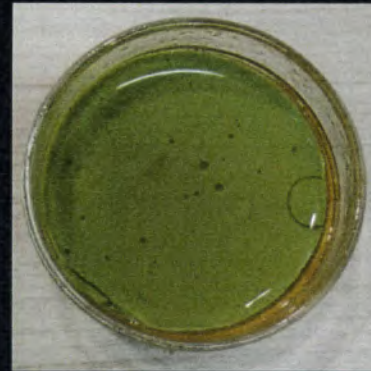
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Fig. 1 A prototype model of Vertical Tube Gel Electrophoresis (VTGE) to aid in biomarkers discovery in cancer. (A). A flow design of VTGE. (B). A working model of VTGE. (C) LC-HR-MS based total ion chromatogram of healthy urine metabolites. (D) LC-HR-MS based total ion chromatogram of oral cancer urine metabolites. Indian Patent Application Number: Date of Publication: 01/03/2019. (Patent Application Number no: 201921000760).

(Dr. A. N. Suryakar)  
Registrar  
Dr.D.Y.Patil Vidyapeeth  
(Deemed to be University)  
Pimpri, Pune- 18.



# Agastic: A bioplastic from agar waste



## Bioplastic

Aesthetic products, packaging films, packaging material

## Biogels

Air freshener gels, water absorbing gels



# Products developed/In pipeline: Agastic



(Dr. A. N. Suryakar)  
Registrar  
Dr.D.Y.Patil Vidyapeeth  
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**Bioplastic**

Aesthetic products,  
packaging films,  
packaging material

**Biogels**

Air freshener gels,  
water absorbing  
gels





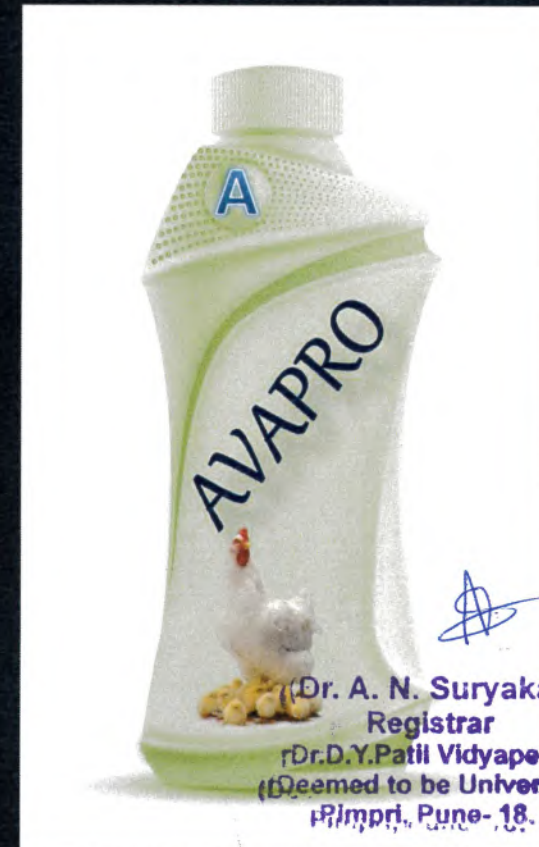
# Product Developed & Technology Transfer- 2

## Probiotics for Poultry

### Avapro Product Label

AVAPRO SUPPLEMENT FACTS	
Weight: 1 Packet (___ g)	
<i>Lactobacillus fermentum</i>	2.5X10 <sup>10</sup> CFU/g
<i>Lactobacillus plantarum</i>	2.5X10 <sup>10</sup> CFU/g
Pectin	
β-carotenoid	
Sorbitol	
Ascorbic acid	
Citric acid	

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**Directions:** For best results, take entire content of the sachet and mix with (\_\_\_ kg) of organic feed/ standard feed/ water (\_\_\_ L) and use immediately

**Presently the product is licensed to “Agroinnovations India Pvt. Ltd.”**



# Research Awards @ National Level



## Biosmotrap

An innovation entitled “**A multipurpose low-cost biological air purifier**” submitted by **students** of Dr. D. Y. Patil Biotechnology and Bioinformatics Institute under the **guidance** of **Dr. Neelu Nawani**, received the **Gandhian Young Technology Innovation Award 2018** (GYTI 2018).

The award was given to the students **Mrs. Neeta Wagle** and **Ms. Priti Yewale** by **Hon’ble President of India Shri Ram Nath Kovind**.



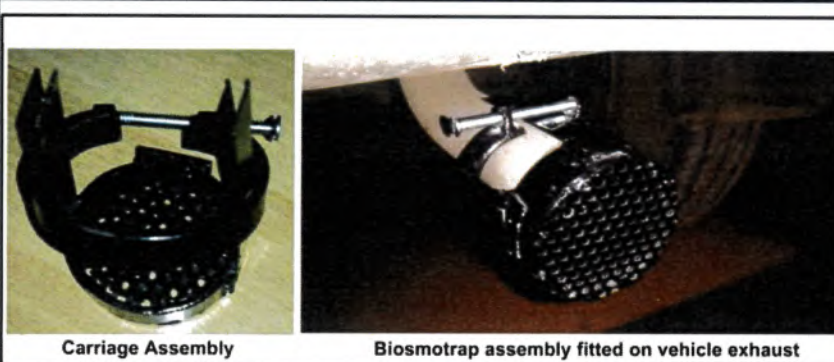


# Product Developed & Technology Transfer- 1

## Biosmotrap (De Novo Tech., Mumbai)

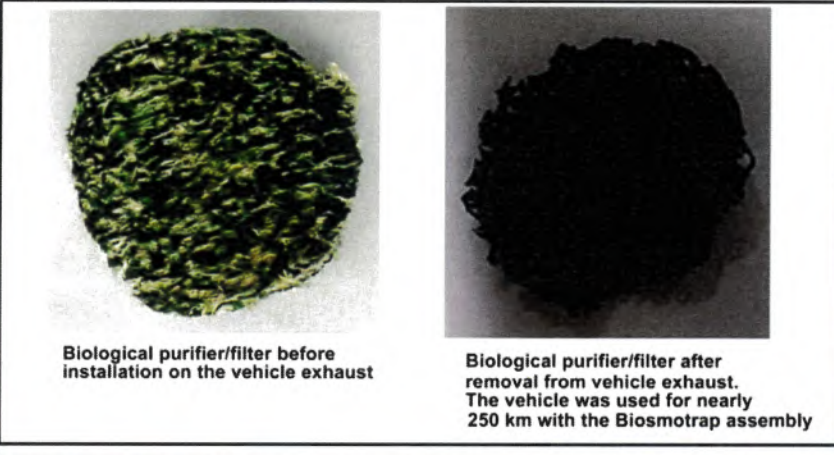


Biosmotraps are made from waste materials when fitted on vehicle exhaust pipe, they reduce the black emissions by 70%



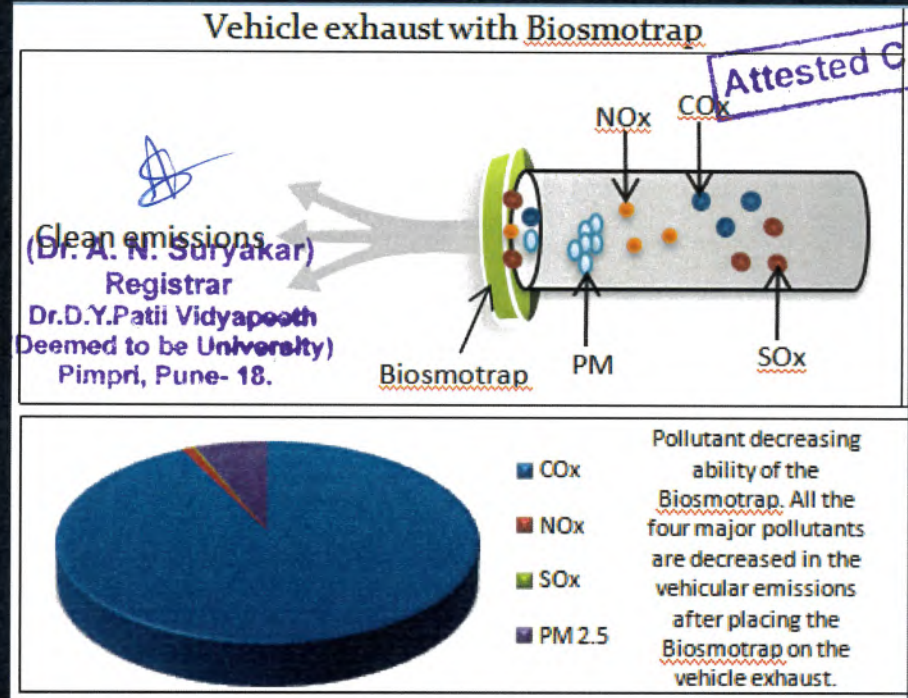
Carriage Assembly

Biosmotrap assembly fitted on vehicle exhaust



Biological purifier/filter before installation on the vehicle exhaust

Biological purifier/filter after removal from vehicle exhaust. The vehicle was used for nearly 250 km with the Biosmotrap assembly



**Air Pollutants**

**Pollution control and air clean-up at low cost**

**Personal Protection**

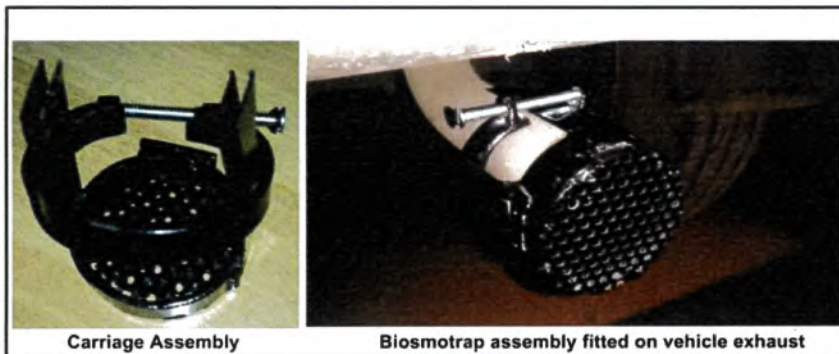
**Masks, safety enclosures, cooking stoves with filters**

This innovation received award from Hon'ble President of India



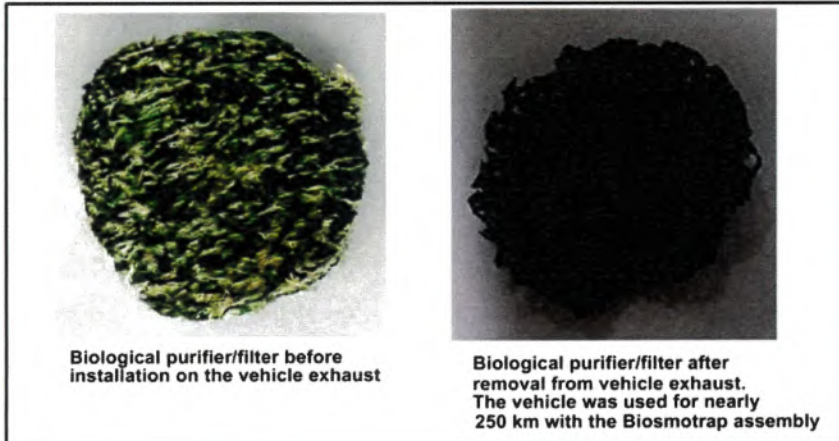
# Products developed & Technology Transfer (in process): **DPU**

## Biosmotrap (De novo Tech, Mumbai)



Carriage Assembly

Biosmotrap assembly fitted on vehicle exhaust

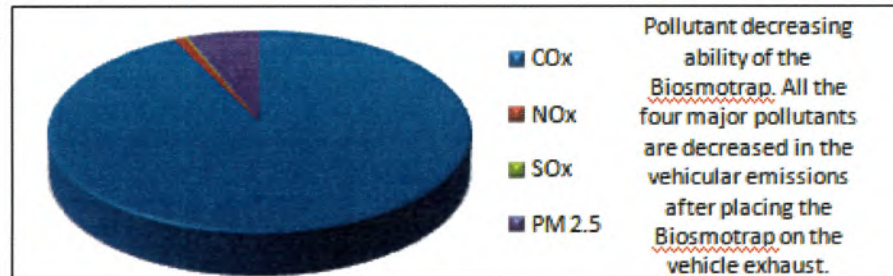
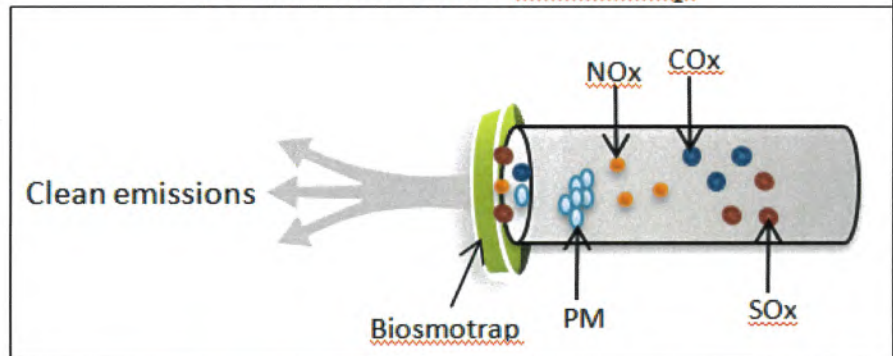


Biological purifier/filter before installation on the vehicle exhaust

Biological purifier/filter after removal from vehicle exhaust. The vehicle was used for nearly 250 km with the Biosmotrap assembly

Biosmotraps are made from waste materials when fitted on vehicle exhaust pipe, they reduce the black emissions by 70%

Vehicle exhaust with Biosmotrap



Air pollutants

Pollution control and air clean-up at low cost

Personal protection

Masks, safety enclosures, cooking stoves with filters

This innovation received award from Hon'ble President of India (Dr. A. N. Suryakar) Registrar

Dr. D. Y. Patil Vidyapeeth (Deemed to be University) Pimpri, Pune- 18.

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