

OUTCOME REPORT

of

Innovation Week Celebration: Expert talk on “Big wonders of small: nanobiotechnology in healthcare”

by

Amity Institute of Pharmacy

Of

Amity University Mumbai, Maharashtra

General Information :

Date of Event : 01/10/2024
Venue : Room 315, III floor, A1 Block, AIP, AUM, HYBRID MODE
Organized by : Amity Institute of Pharmacy
Total Participation : 12 students + 4 faculty+01 Director=17
Moderator(s) : Prof Dr Suneela Dhaneshwar
Event Coordinator : Dr Prasad Pofali, Dr Pankaj Bhamare
Convener/Host : Prof Dr Suneela Dhaneshwar

Details of Expert/Speaker/Resource Person/Judge:

Country Name : Harrisburg, Philadelphia, USA
Expert Name : Prof. (Dr) Mrunalini V Pattarkine
Organization : Harrisburg University, PA, USA
Designation : Professor of Biotechnology & Director, Capital Area Biotechnology Partnership, Nanobiotechnology Initiative, Harrisburg University, PA, USA
Specialization : Biotechnology

Point wise Outcome Report:

1) What was the inspiration behind taking up this particular subject for the session?

An expert talk on “Big wonders of small: nanobiotechnology in healthcare” was organized to celebrate Innovation Week to commemorate birthday of Hon Chancellor Dr Aseem Chauhan Sir who has always promoted innovation, start ups and entrepreneurship among the youths. Therefore the innovation brought about by the

disruptive technologies and nanobiotech in healthcare system was thought of as the most apt topic for the webinar.

- 2) Who were the Distinguished Guest Speakers Invited for the Event. Kindly give their Names. Designations, Organisation, Qualifications, Area of Expertise and any Honours and Awards received by them.

Mrunalini Pattarkine, PhD, Professor in Biotechnology heads the BTEC program at Harrisburg University of Science and Technology in Harrisburg PA. Prof Pattarkine has a PhD in Biochemistry from IIT Powai, and has over 25 years of research experience. She is the lead faculty for Nanobiotechnology initiative within the Biotechnology program at the university and is currently directing sponsored research for private industries. In addition to teaching Biotechnology/Nanobiotechnology courses, Prof Pattarkine also serves as a Director of Capital Area Biotechnology Partnership (CABP), a Workforce Leadership Grant in Biotechnology through funding from PA Department of Community and Economic Development (DCED). Prof Pattarkine has active research projects in areas such as biosensor development, paper-based analytics, antimicrobial properties of plant biomaterials, and hydrogels for regenerative medicine. Prof Pattarkine has several publications and two book chapters to her credit. She has conducted numerous workshops at national and international events, for educators and administrators.

- 3) What was the Criteria Considered for inviting the Various Individual Guests, Internal as well as External?

Dr Mrunalini Pattarkine heads the biotech program at Harrisburg university and has experience of mentoring students of junior to senior level , training and teaching them nanobiotechnology. She also has several funded projects as PI. She is an expert on disruptive technologies and how they have brought evolution in healthcare system. Therefore, she was considered as apt speaker to deliver a talk on the occasion of innovation week.

- 4) Were the guests in advance and if yes, from what previous interaction? Were the guests recommended by someone. If yes, who?

Dr Pattarkine was contacted in advance and was recommended by Prof. (Dr) Suneela Dhaneshwar. They studied together during their undergraduate studies and have worked closely on several research themes.

- 5) Who all attended the guest lecture? Also, if possible, give the numbers.

Guest lecture was attended by total 12 students of AIP, 4 faculty members and 1 Director details are as given below.

Sr number	Enrollment number	Roll number	Name of student attended
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1	A72213324003	BPH2401	ARYAN GUPTA
2	A72213324004	BPH2409	SHRUTI DIVEKAR
3	A72213324005	BPH2402	ARYAN SAHA
4	A72213324006	BPH2405	VEDANT KANADE
5	A72213324007	BPH2406	ARCHANA REDDY
6	A72213324008	BPH2403	FAISAL ANSARI
7	A72213324009	BPH2407	NOFIT DIGHODKAR
8	A72213324010	BPH2408	SACHI NIRMALKAR
9	A72213324011	BPH2404	TANUJ TIWARI
10	A72213324012	BPH2410	SURAJIT JANA
11	A72213324013	BPH2411	ABHIRAJ DESAI
12	A72213324014	BPH2412	ANNISH VISHWAKARMA

- 6) What were the 'Take Homes' for the Guests and the Attendees in the form of knowledge, facts, information etc.? Please give the Salient Novel Points Covered by the Guest Speakers, in Bullet Points Format.

This webinar gave the students an overview of fundamentals of nanotechnology & nanobiotechnology, their applications in medical and healthcare field in terms of wearable medical devices, diagnostics, prosthetic organs, 3 D printing etc.

- 7) Has the guest lecture been able to generate any Tangible Gains for the Faculty, Researchers and Students of Amity. If yes, what are these?

Definitely yes ! The talk has generated interest & multiple gains for students as well as faculties of Amity Institute of Pharmacy such as enhancement of basic understanding of nanotechnology & nanobiotechnology and how pharmacy is interconnected with these fields as also the research & collaborative opportunities.

- 8) What are the 'Progressive Outcomes /Way Forward' planned, based on the event of the webinar. Please give them pointwise, with timelines and names of the persons responsible for their execution.

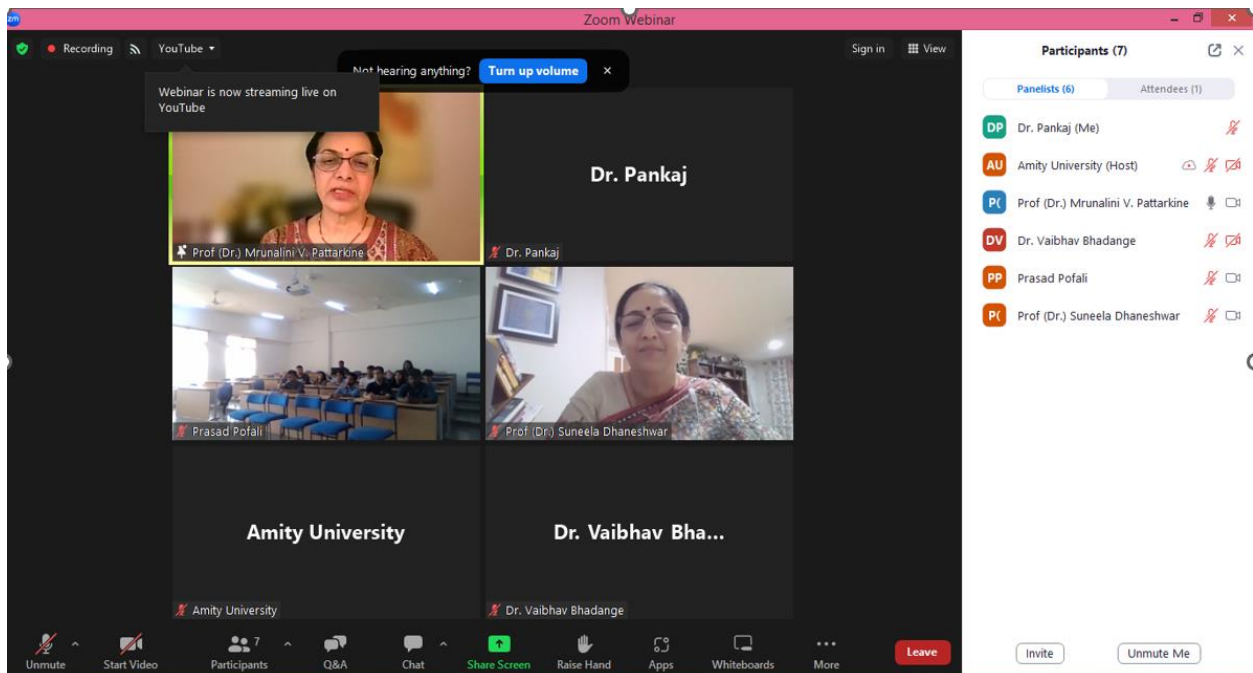
After 3 years, AIP students can be sent for 1 month internship at Harrisburg University. Student and faculty exchange, training opportunities have also been discussed with Dr Mrunalini.

- 9) Have we Followed-Up with the Guests to consider Various Collaborations such as Joint Research Papers and Publications; Joint Funded Projects; Student Internships and Placements; Participation in National/ International Seminars/Conferences/Workshops ; Student/Faculty Exchange Programmes ; Post Doctorate tie ups ; etc.

Guest speaker has shared contact details with students and faculties of Amity Institute of Pharmacy. We will definitely be in touch with Prof. (Dr) Mrunalini Pattarkine for various collaborations such as joint research papers, publications or student/faculty exchange.

- 10) What are the plans for utilizing the contacts developed with the Invited Guests, for future cooperation to meet the targets of 'Mission: Connect' and Mission: Synergy of Brains? Please give a roadmap with timelines.

Yes, our students and faculties definitely plan for utilizing the contacts developed with the invited guest for future prospects.



ziti You are viewing Prof (Dr.) Mrunalini V. Pattar... 's screen View Options

Recording YouTube

Not hearing anything? Turn up volume

Disruptive Innovation

- A disruptive innovation is an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market leaders and alliances.

Examples –

1. The personal computer (PC) displaced the typewriter and forever changed the way we work and communicate.
2. Cell phones made it possible for people to call us anywhere and disrupted the telecom industry

CONNECT. HARRISBURG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Prof (Dr.) Mrunalini V. Pattar...
Dr. Pankaj
Prasad Pofali
Prof (Dr.) Sunil K. Patil
Amity University
Amity University

Unmute Start Video Participants 7 O&A Chat Share Screen Raise Hand Apps Whiteboards More

2. 3D Printing



 Prof (Dr.) Suneela Dhaneshwar	 Prof (Dr.) Mrunalini V. Pattarkine
 Prasad Pofali	 Amity University
 Dr. Vaibhav Bha...	 Dr. Pankaj









Prof Dr Sunil D...

Prof Dr Sunil Dhaneshwar

QUESTIONS??

Thank You!



 Prof (Dr.) Suneela Dhaneshwar	 Prof (Dr.) Mrunalini V. Pattarkine
 Prasad Pofali	 Amity University
 Dr. Pankaj	 Prof Dr Sunil D...
 Prasad Pofali	 Dr. Vaibhav Bha...



Prof (Dr.) Suneela Dhaneshwar



Prasad Pofali



Prof (Dr.) Mrunalini V. Pattarkine



Prasad Pofali



Dr. Vaibhav Bhadange



Prof Dr Sunil Dhaneshwar

Amity University

Amity University

BIG Disruptions of SMALL! Disruptive Technologies For Healthcare



M V Pattarkine, PhD

*Professor, Chair, Biotechnology, Nanobiotechnology Initiative
Director, Capital Area Biotechnology Partnership*



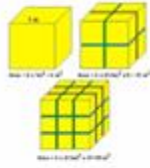
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CONNECT



Surface Area to Volume Ratio

At nanoscale, the surface area to volume ratio increases

- A greater amount of a substance comes in contact with surrounding material
- This results in better catalysts, since a greater proportion of the material is exposed for potential reaction



Nanoparticles

