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INSTITUTE OF SCIENCE & TECHNOLOGY
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Established Under Sec. 3 of U.C. Act, 1956 - NAAC Accredited
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PROGRAMME REPORT ON

2nd International seminar-Advancement in Nanotechnology for Biomedical Applications

Resource Person

Dr. Ramesh Pandian

Organized by

PHYSICS- PMIST



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PROGRAMME REPORT ON

2nd International Seminar

Resource Person

Dr. RAMESH PANDIAN

Organized by

PHYSICS- PMIST

Department of Physics

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2nd International Seminar on Advancement in Nanotechnology for Biomedical Applications

Objective of the Programme:

The objective of the seminar is to explore and advance the application of structural biology techniques in the drug discovery process. The seminar aims to highlight how these methods provide valuable insights into the molecular structures of drug targets, enabling the design of more effective, selective, and safer therapeutics. It also seeks to foster collaboration among researchers, academics, and industry professionals, share successful case studies, discuss challenges in drug development, and explore emerging trends in integrating structural biology with other technologies like artificial intelligence, to accelerate the discovery of novel and targeted treatments.

Resource Persons and Session Details:

Dr. P. Ramesh - Drug Discovery and Development Using Structural Biology Methods

No. of Beneficiaries: 95

Coordinators: Dr. K. Dhanalakshmi AP/ Physics

Dr. N. Siva Jyothi AP/ Physics

DEPARTMENT OF PHYSICS

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2nd International Seminar on Advancement in Nanotechnology for Biomedical Applications

Lecture: Drug Discovery and Development Using Structural Biology Methods

PROGRAMME SCHEDULE

02.00pm – 02.15pm	<p>INAGURATION</p> <ol style="list-style-type: none"> 1. Compeering – Ms. K. Usha II M.Sc Physics 2. Welcome address – Dr. P. Gayathri HoD/ Associate Professor 3. Introduction – Ms. S. Subiksha Reseach Scholar 4. Felicitation Address – Dr. P. Vijayalakshmi – Dean / FSH
02.15pm – 03.15pm	<p>Session – I : Special Lecture</p> <p>Dr. Ramesh Pandian Researcher/ lecture Protein Structure – Function Research Unit School of molecular and cell biology Faculty of science University of the Witwatersrand Johannesburg, South Africa</p>
03.15pm – 03.30pm	<p>TEA BREAK</p>
03.30pm – 04.30pm	<p>Session – II : Special Lecture</p> <p>Dr. Ramesh Pandian Researcher/ lecture Protein Structure – Function Research Unit School of molecular and cell biology Faculty of science University of the Witwatersrand Johannesburg, South Africa</p>
04.30pm – 04.50pm	<p>Interaction</p>
04.50pm – 05.00pm	<p>Vote of Thanks –Ms. A. Pragatheeshwari III B.Sc Physics</p>

Invitation for the Program



**PERIYAR
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INSTITUTE OF SCIENCE & TECHNOLOGY
Dhanuvarthi, Palayamkottai
Tamil Nadu - 625 015



DEPARTMENT OF PHYSICS


Organizes

2nd International Seminar on ADVANCEMENT IN NANOTECHNOLOGY FOR BIOMEDICAL APPLICATIONS

Drug Discovery and Development using Structural Biology Methods




Resource Person
Dr. RAMESH PANDIAN, M.Sc., Ph.D.,
Senior Researcher/Lecturer
Protein Structure-Function Research Unit,
School of Molecular and cell Biology,
University of the Witwatersrand,
Johannesburg, South Africa.


 **28 JANUARY 2025**

 **2.00 pm to 5.00 pm**

 **Dawkins Hall**



Coordinator
Dr. K.DHANALAKSHMI, AP/ Physics
Dr. N.SIVAJYOTHI, AP/ Physics

 www.pmu.edu

Convener
Dr. P. GAYATHRI, HoD/ Physics

Report of the Programme:

The **2nd International Seminar on Advancement in Nanotechnology for Biomedical Applications** featured a session on **Drug Discovery and Development Using Structural Biology Methods**, providing an in-depth understanding of how structural biology techniques contribute to pharmaceutical compound identification, design, and optimization. The session covered theoretical and hands-on methodologies, emphasizing experimental and computational approaches such as X-ray crystallography, NMR spectroscopy, cryo-electron microscopy, molecular docking, and molecular dynamics simulations. Participants explored protein-ligand interactions, case studies of FDA-approved drugs, and challenges in structure-based drug design. The session highlighted the importance of interdisciplinary collaboration and continuous advancements in structural biology tools for efficient drug discovery. Outcomes included enhanced knowledge of structural biology methods, practical exposure to computational and experimental techniques, and opportunities for networking and collaborations among researchers, industry professionals, and academics.

Event Photos



Topic: Drug Discovery and Development using Structural Biology Methods





Vallam, Tamil Nadu, India

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Lat 10.730154°

Long 79.068909°

28/01/25 04:02 PM GMT +05:30

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PERIYAR
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 INSTITUTE OF SCIENCE & TECHNOLOGY

2nd International seminar On

Advancement in Nanotechnology for Biomedical Applications

Date: 28.01.2025

Venue: Dawkins Hall

S.No	Name	Designation	Signature
1	DR. RAMESH PANDIAN	Senior Researcher	P. Ramesh
2	DR. P. VITAYALAKSHMI	Dean FST	P. Vitayalakshmi
3	DR. P. GAYATHI	HOD/Physics	P. Gayathri
4	DR. K. DHANILAKSHMI	Assistant professor	K. Chand
5	DR. N. SUDHAYATHI	ASSISTANT PROFESSOR	N. Anjan
6	DR. S. GOMATHI	Asso. Prof / Chem	S. Gomathi
7	DR. S. SUNDARANAYAGI	HOD / Chemistry	S. Sundaranayagi
8	Dr. Mauli Kharal	Assistant Professor	M. Mauli
9	DR. M. VI. SENSALINGAM	Assistant prof	M. V. Sensalingam
10	Dr. G. Manikumar	AP / chemistry	G. Manikumar
11	DR. T. BHAGAVARAJ	AP / Physics	T. Bhagavarej
12	Dr. A. SUBHASREE	AP / Chemistry	A. Subhasree
13	Dr. M. NAGARA	AP / chemistry	M. Naga
14	MR. R. KOTHLIK	API physics	R. Kothlik
15	DR. J. JAYARAJ	AP / Physics	J. Jayaraj

K. Chand
 N. Anjan
 Coordinator

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2nd International seminar On

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Date: 28.01.2025

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S.No	Name	Designation	Signature
1	B. Mahalingam	II M.Sc (BT)	B. Mahalingam
2	M. Muthulakshmi	II M.Sc (BT)	M. Muthulakshmi
3	S. Nithya	II M.Sc (Biotech)	S. Nithya
4	B. Dhruva Devi	II M.Sc (Biotech)	B. Dhruva Devi
5	S. Shifa	II M.Sc (Biotech)	S. Shifa
6	S. Madhumitha	"	S. Madhumitha
7	Neha Biju	"	Neha Biju
8	S. Sowmya	II M.Sc, Chem	S. Sowmya
9	B. Barithra	II M.Sc, Chem	B. Barithra
10	T. Raja Rajan	II M.Sc, Chem	T. Raja Rajan
11	S. Sakshini	II M.Sc, Chem	S. Sakshini
12	A. RAJBHARATH	IV. B.Sc. B.Ed	A. RAJBHARATH
13	S.K. Kamalika	II M.Sc, Chemistry	S.K. Kamalika
14	K.R. Sathiyapriya	"	K.R. Sathiyapriya
15	M. Sarva Aparna	II M.Sc. Chemistry	M. Sarva Aparna

N. Anu
 N. Anu
 Coordinator

P. Pragasam
 P. Pragasam
 Convener

D. Pragasam
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2nd International seminar On

Advancement in Nanotechnology for Biomedical Applications

Date: 28.01.2025

Venue: Dawkins Hall

S.No	Name	Designation	Signature
1	M. Chandrakanth	II - M.Sc Chemis	
2	R. Sankari	I - M.Sc Chemi	
3	Aleena Treasa Saji	II - M.Sc Biotech	
4	Adithya. V. Bija	II m.sc Biotech	
5	S. KEERTHI	I st M.Sc physics	
6	C. SAROJINI	I st M. Sc physics	
7	R. GORU KA	I st M. Sc physics	
8	R. Jencya	II M.Sc Chemistry	
9	R. sumathi	"	
10	S. Keerthana	IV - B.Sc, BEd	
11	A. Thangasakthi	IV - B.Sc., B.Ed	
12	B. Sivagani	IV - B.Sc. B.Ed	
13	K. Kamavivinya	II-M.Sc/Chemistry	
14	A. Akalya	Phd chemistry	
15	E. Deepika	II M.Sc Bio Tech	

Coordinator

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2nd International seminar On

Advancement in Nanotechnology for Biomedical Applications

Date: 28.01.2025

Venue: Dawkins Hall

S.No	Name	Designation	Signature
1	K. USHA	II M-sc physics	K. Usha
2	A. Jeyarini	II M-sc Physics	A. Jeyarini
3	A. Aswin	II M-sc Physics	A. Aswin
4	A. Veerababu .	II M.Sc Physics	A. Veerababu .
5	A. Harini	II M-sc physics	A. Harini
6	R. Abinaya	II msc physics	R. Abinaya
7	J. Lavanya	III B-sc physics	J. Lavanya
8	A. Pragadeeswari.	III B-sc Physics	A. Pragadeeswari.
9	N. Karimozhi	III B-sc Physics	N. Karimozhi
10	M. Subasri	III - B.sc Physics	M. Subasri
11	B. Sudhan	I - m.sc chem	B. Sudhan
12	K. Sudhakarson	II - m.sc chemistry	K. Sudhakarson
13	S. Sakthi	II - MSc Chemistry	S. Sakthi
14	S. Hari Prithish	I m-sc chemist	S. Hari Prithish
15	M. Mevin Joshua	I - M.sc chemistry	M. Mevin Joshua

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 N. Arun
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1	S. Ponni	I.M.Sc. Chemistry	[Signature]
2	R. Kalavani	II - M.Sc. Chemistry	[Signature]
3	B. Abimaya	II - M.Sc. Chemistry	[Signature]
4	M. Asik Ahmad	III Btech	[Signature]
5	A. Priyadharsini	III Btech	[Signature]
6	T. S. Sushma	III Btech (Biotech)	[Signature]
7	M. Suvividhya	"	[Signature]
8	A.A. Prashna	"	[Signature]
9	H. Nishara Sameera	"	[Signature]
10	K. Gunathi	"	[Signature]
11	P. Subhasri	"	[Signature]
12	P. Varalakshmi	"	[Signature]
13	S. Priella Paulin	III rd Btech Biotechnology	[Signature]
14	C. Mega Priyadharsini	"	[Signature]
15	S. Soniya	I M.Sc. Chemistry	[Signature]

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S.No	Name	Designation	Signature
1	Raathivarshni.M	III B.Tech Biotech	M. Raathi
2	J. Jiji	B.Sc. Biotech	J. Jiji
3	B. Jibudan	II - MSc Biotech	B. Jibudan
4	B. Sivarani	III B.Tech Biotech	B.S.
5	A. Gopika Srip	III - B.Tech. I	A. Gopika Srip
6	V. Kirubani Mary	III - B.Tech. Biotech	V. Kirubani Mary
7	Pavithra.M.B	IV - B.Tech. Biotech	Pavithra.M.B
8	R. Ramya	III - B.Tech. Biotech	R. Ramya
9	S. Sharmila	III - B.Tech. Biotech	S. Sharmila
10	D. Sathya	III - B.Tech. Biotech	D. Sathya
11	R. Gayathri	III - B.Tech. Biotech	R. Gayathri
12	Pon. Pragathy	III - B.Tech. (Biotech)	Pon. Pragathy
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S.No	Name	Designation	Signature
1	KAVINILA · M	Research Scholar phy. depart	
2	KAVITHA · G.	Research Scholar Physics-dept.	
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N. Rupa
Coordinator

P. Gopinath
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P. Gopinath
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Outcome of the Seminar

- The seminar successfully enhanced participants' knowledge of structural biology methods in drug discovery, equipping them with essential skills to analyze molecular structures and design effective drug candidates.
- Attendees gained practical experience with computational and experimental techniques, fostering a deeper understanding of protein-ligand interactions and their implications in pharmaceutical development.
- The event facilitated valuable discussions among researchers, industry professionals, and academics, promoting networking and potential collaborations.


N. Ryn
Coordinators 28/01/25

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