





# International Conference on 'NANOSCIENCE AND NANOTECHNOLOGY'

29<sup>th</sup> February & 1<sup>st</sup> March 2024

#### **Poster Presentations List and Schedule**

Day 1: 29<sup>th</sup> February 2024 Venue: Dr. TMA Pai Hall, 2<sup>nd</sup> Floor, KMC, MAHE, Manipal

Poster Session: 02:00 to 04:30 pm

Category 1: Nanomedicine, Nanomaterial, Nanobiotechnology and Nanocell biology

		Abstract		
Sl.	No	id	Name of the Presenter	Title of the Poster
				Engineering Multifunctional Lipid Nanocomplexes for Precision Glioblastoma Therapy: A Paradigm Shift
1	1	12	Manasa Manjunath Hegde	in Treatment Strategies
2	2	14	Akanksha Dessai	Precision Nanomedicine to Treat Non-small cell lung cancer
3	3	18	Yadishma A. Gaude	Gastroretentive Microballoons Of Olmesartan Medoxomil: Formulation And In Vitro-In Vivo Evaluation
4	4	21	Archana S. Patil	Development of smart carrier systems and their assessment for tumor targeted delivery of Capecitabine

				One-Pot Synthesis Of Dextran-Based Silver Nanocomposite Hydrogel As A Vehicle For Sustained Co-
	5	28	Amos Luanda	Delivery Of 5-Fluorouracil And Cisplatin
				A Novel Polyelectrolyte Complex Nanocomposite Of Chitosan And Karaya Gum Derivatives For Co-
	6	32	Rakshitha	Delivery Of 5-Fluorouracil And Curcumin In Cancer Therapy
				Fabrication and Evaluation of Spray Dried Polymeric Nanoparticle Dry Powder for Inhalation: A Strategy
	7	33	Usha Y Nayak	to Deliver Nintedanib to Lungs
				The Confluence of Nanocarriers and Heat Shock Protein 70 in Pioneering Glioblastoma Multiforme
	8	36	Srinivas Mutalik	Therapy: Forging Pathways Towards Precision Targeting and Transformation
			Kajal Kumari, Venkatesh	
	9	37	Kamath B	Magnetic Nanoparticles: Recent advancements for Biomedical applications
	10	38	VIGNESH N	Chitosan loaded nanoparticles for ocular delivery
	11	40	Anjan Makkar	Nanoparticles in the treatment of Pulmonary Cancer
	12	41	Chelsea George	Nanobiovesicles for Therapeutic Delivery
	13	42	Rajeswari Subramanian	Photo-Triggered Nanotheranostics: Precision Medicine for Cancer Treatment
	14	46	Ramya Nair	Synthesis and characterization of crosslinked gelatin nanoparticles for biotherapeutic applications
			Leroy Rueben Alvares,	
	15	62	Riya Deona Culaco	Guided Missiles: Nanoparticles Enhancing Cisplatin's Cancer-Fighting Accuracy
				Fluocinolone Acetonide Loaded Biodegradable Polymer Based Nanoparticles For Management Of Diabetic
	16	79	Nayana E Subhash	Macular Edema
			Keerthana Suresh K, Dr.	Formulation And Evaluation Of Curcumin Nanoparticles To Repolarize Tumor Associated Macrophages To
	17	80	Bharath Raja Guru	Anti-Tumor Macrophages For Cancer Immunotherapy
				Development Of Sustained And Controlled Drug Delivery System Using Biodegradable Polymer To Treat
	18	90	Meghana Prabhu	Fungal Keratitis
				Biosynthesis Of Zinc Oxide Nanoparticles Capped By Fumaria Parviflora Extract Against Breast Cancer
	19	10	Praveen Halagali	Cell Lines (MDA-MB-231, MCF-7)
	20	85	Shobitha Padmar	Beneficial effect of zinc oxide nanoparticles on the outcome of testicular tissue cryopreservation
L	20	0.5	Shooting Laginar	Deficition of the order of the order number tieres on the outcome of testicular displace of yophose varion

				Navigating Skin Delivery Horizon: An Innovative Approach in Pioneering Surface Modification of Ultra
2	1	98	Devika Nayak	Deformable Vesicles
2	2	101	Vijishna.L.V	A Review of Nano-Based Drug Delivery System for the Treatment of Osteoporosis
				Development of Surface Modified Mesoporous Silica Nanoparticles for Co-delivery of Resveratrol and
2	3	107	Manasa CM	Tamoxifen Citrate for localized breast cancer therapy
				Chemomodulatory effect of silver embedded magnesium oxide nanoparticles of ethanolic extract of
2	4	108	Aswin J	Wrightia tinctoria leaf in 1.2-dimethyl hydrazine induced colon carcinoma in male sprague dawley rats
2	5	110	Premnath M S	Design And Development Of The Liquisolid Compact Of Gingerol Loaded Lozenges
				Extracellular Vesicle-Mediated Transfer of DOC2B: Unveiling Tumor-Suppressive Mechanisms in Cervical
2	6	113	Sangavi Eswaran	Cancer
			A.ABHILIPSA, AND	
2	.7	117	S.CHATTERJEE	"Innovations at the Nanoscale: A Critical Analysis of Nanomedicine's Role in Medicine"
			Rushikesh Fopase, Lalit	
2	8	121	M Pandey	Precision Hyperthermia: Self-Regulating Gadolinium Garnet Nanoparticles For Cancer Therapy
2	.9	128	E.John , T.Anil	Diagnosis and Treatment of Ovarian Cancer using Magnetic Nanoparticles
				Clerodendrum glandulosum Lindl. extract reduced in situ silver nanoparticles in a chitosan-PEG polymeric
3	0	129	Rajdeep Saha	matrix for the management of diabetic wound
			Naveen Rajana, Yeruva	
			Sri Pooja, Neelesh Kumar	Targeted Delivery and Apoptosis Induction of Palbociclib loaded 4-Carboxy Phenyl Boronic acid
3	1	130	Mehra	Conjugated Hybrid Nanoparticles in Breast Cancer Cells
				Evaluation Of Pioglitazone Nano Carrier Suspension On Induction Of Type-Ii Diabetes Mellitus In Rats By
3	2	131	Yashwanth K	Streptozotocin-Nicothiamide
	2	122	g. II. A	
3	3	132	Stalin A	Formulation And Evaluation Of Ultrafast Dissolving Orofilm Containing Oxcarbazepine Nanofibre
_		100	TT .* A 44	A trio symphony nanoemulgel composed of seabuckthorn oil, lavender oil and thymoquinone for treatment
3	4	133	Urati Anuradha	of diabetic wound healing

35	143	Apoorva Jnana	Functional analysis of the role of extracellular vesicles in pathogenesis of diabetic foot ulcers
36	13	Onkar Arote	Nanosuspension Technology: Method and characterisation and techniques for improving stability of nanosuspension in drug delivery.
37	22	Vinay PJ	Nanocellulose As Biopolymer And Its Applications In Biomedical Field
38	70	Ankitha Suresh	Homeopathy - Modern medicine interface: Nanofibrous scaffolds loaded with homeopathic mother tincture for wound healing applications
			Targeted delivery of poly (lactic-co-Glycolic acid) (PLGA) nanoparticles encapsulated with paclitaxel and
39	75	Joyceline Praveena	curcumin drugs for cancer therapy
40	76	Anuj Mandrekar	Revolutionizing Cranial Bone Regeneration: Harnessing Nanofibrous Scaffolds
41	81	Maya Lakshmanan	Application Of Nanomaterials In Ovarian Tissue Engineering
42	88	Dolphee Khurana	Insights Into Novel Biomaterials For Dura Mater Substitutes For Improved Dural Closure
43	93	Swathi Sadashiva	3D Printed Composite Scaffolds For Segmental Bone Defect:Fabrication And Mechanical Evaluation
44	94	Dr. K. Rachel Sarah Vinodhini	Development and Characterization of Novel β-TCP Reinforced Nanocomposite Scaffold from Human Placental Chorionic Membrane for Guided Tissue and Bone Regeneration
45	95	Dr. Pavithra V	Nanoparticles enhanced microfluidic biosensing in liquid biopsy for early detection of Oral Squamous Cell Carcinoma - Current Trends and Future Perspectives
46	136	Raju Rana	Carbon nanomaterials: its application in diagnosis and treatment of Metabolic syndrome and and its components. Narrative review
47	137	Mr.D.K.SHANMUGANA THAN	Comparative study of radiolabeled 68Ga DOTANOC acetate, 68Ga PSMA-11, and 68Ga RGD on 1, 2-dimethylhydrazine induced colon carcinoma in Sprague Dawley rats
48	147	Sumi Babu	Spectrometric optimization of parameters affecting Biogenic synthesis of Silver nanoparticles using Banana (Musa spp.) peel extract as reducing agent

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	49	149	Anish Cherian	Nanoceria-based Nanozymes for Cancer: A Theranostic Approach
				1Carbonic Anhydrase 9-Targeted Compound-Loaded Nanofiber For Evaluating Anti-Cancer Potential On
	50	152	Apeksha Padakannaya	Prostate Cancer Cell Line
				Effect Of 2DG Capped Gold Nanoparticles In The Human Blood Lymphocytes Using Alkaline Comet
	51	155	Saritha Suvarna	Assay
				, and the second
	52	156	Dr Likhitha U	Tiny Titans: Unlocking Therapeutic Potential of Lyotropic Liquid Crystalline Nanoparticles
				Mitigation of freeze-thaw-induced damage in prepubertal testicular tissue using liposome based freezing
	53	20	Reyon Dcunha	medium
	54	24	Dr. Supreet Kaur	Innovative Approaches to Nano-Endodontics
				Design and Development of Mesenchymal Stromal Cell Secretome Nano Transferosomes for Anti-
	55	35	Jahnavy M Joshi	Inflammatory Activity
	<b>.</b> .		N. 1 61	
	56	53	Neetha Shenoy	Nanotechnology in dental caries prevention and treatment
	5.77	61	01 01 11	
	57	61	Shruti Chaudhary	Unraveling the Macro potential of Nanoparticles
	58	64	Nisha Shetty	Functional nanofibers for enhanced dental applications
	59	69	Kurliwar Dhana laxmi	Veterinary Nanomedicine
				Exosomes released by highly migratory premalignant lung epithelial cells facilitate epithelial-mesenchymal
	60	71	**Manash Paul	transition and migration of unselected slow migratory cells
	61	83	Saumya Saraswat	Precision In Healing: Nanoscience Innovations For Tracheal Restoration
	62	86	Atisha bansal	Nanotechnology,the trailblazer for modern-day implantology
				Optimizing Antiviral Treatment: A Multifaceted Approach with Dual Sustained-Release Delivery Systems
	63	87	Thanushree V	Across Diverse Administration Routes for Enhanced Therapeutic Efficacy
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			Rising Innovations: A Review of Applications of Titanium Dioxide Nanostructures for Advances in
64	99	Dr. Ratnapriya Thakur	Dentistry
			Effect of altered glucose levels on fatty acid synthase enzyme and downstream fatty acids in extracellular
65	106	Namita N. Kashyap	vesicles
66	124	Ritesh Singh	Beating The Infection - At A Nano-Level
67	150	Trambak Basak	Developement of Novel Nanopolymeric Depots for Dental Drug Delivery
68	158	Sandeep Mallya	Identification of nano-peptides affecting tumorigenesis from RNA-seq data
			Designing Advanced Healing Strategies: Conceptual Study on Chitosan-Silver Nanoparticle-Sesamol
69	159	Pawan Nayak	Nanofibre Constructs for Diabetic Wound Management
			Innovating Wound Care: A Conceptual Study on Sesamol-Based Hydrogel Nanoformulations with Zinc
70	160	Anoop Kishore	Oxide Nanoparticles and Chitosan

Day 2: 1<sup>st</sup> March 2024
Venue: Dr. TMA Pai Hall, 2<sup>nd</sup> Floor, KMC, MAHE, Manipal

Poster Session: 11:45 am to 01:30 pm

#### Category 2: Nanodevices, Nanosensors, Robotics and Photonics

	Abstract		
Sl. No	ID	Name of the presenter	Title of the poster
1	6	J. Kuruvilla	Nanoengineered Drug Delivery: The Potential of Nanobots with Exogenous Power Delivery
2	15	Pallavi B N	Macro spin fluctuations in defect rich nano V2O5 across the metal insulator phase transition
3	16	Andrews Cyril A	Development of a sustainable Zinc-air battery from Industrial waste

4	39	Elsa George	Nanobiosensors as a new diagnostic approach for Alzheimer's disease
5	44	Jeyasankari S	Revolutionizing Healthcare: The Promise of Microbivores, Clottocytes and Respirocytes in Nanorobotics
6	55	Sneha Bhat	Carbon Dots for Drug Delivery and Diagnostic Applications
7	65	Neha Memane	Nanomechanics In Pharmaceutical Formulations
8	66	Kiran N	Nanorobotics For Medical Treatment
9	73	Kavitha Karunakaran	Engineering Of A Nanomolecular Protein Of Chikungunya Virus Towards Developing A High- Throughput Antiviral Screening Platform
10	78	Rishabh Agarwala	NanoBioRevolution in the Cosmos: Medicine's Quantum Leap to the Stars
11	84	Kannath Udayamanoharan Sanjay	Gold nanoparticle-based detection of medicinal herbs using NGS-derived species-specific marker
12	92	Sharmila Nadumane	Glucose- functionalized gold nanoparticles in Lead detection
13	103	Pawan Nayak N	Tailoring Structural, Electrical, and Optical Properties of Mn2O3 Thin Films via Nickel Doping
14	118	Vidya Radhakrishna Prabhu	Nanorobotics: Revolutionized Technology in Modern Science
15	127	Sharanya	Lighting the Path to Precision: Nanophotonics in Medicine
16	151	Jyothsna Manikkath	Implantable and inhalable nano-scale biosensors for point-of-care diagnosis

## **Category 3: Nanoelectronics**

Sl. No	Abstract ID	Name of the presenter	Title of the poster
1	11	Ankit Dev Singh	Volume Contractible Antimony-Bromide As Promising Negative Electrode For Libs
2	17	Ayan Dey	Development of novel, reliable and cost-effective aluminium-nickel high-capacity intermetallic batteries for stationary utility-scale energy storage applications
3	23	Ghanshyam Varshney	Antimony (Sb) based Pseudo 2D(δ+) Hybrid Nanomaterials for Energy Storage Applications
4	25	Roopa D. L	Electrochemical, Ultrasensitive Detection of Nitrite using modified carbon paste electrode with Novel Polyaniline encapsulated CuO doped Magnetite
5	26	N. R. Dhineshbabu	CNTs/Polymer composite coated cotton fabrics for EMI Shielding applications – A short view of contemporary review
6	27	Ravindra Kumar	Investigating the Effect of H+ -ion Irradiation on Layered α-MoO3 Flakes by Defect Engineering
7	58	Gurram Gnaneshwari	Nanoelectronics In Healthcare: Recent Updates
8	91	Padmini Pai	Synthesis of Cadmium Sulphide Nanoparticles Via Agarose Gel Electrophoresis

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9	100	Anusha	Effect of electron beam irradiation on NH3 sensing characteristics of Cu-WO3 films
10	104	Anusha Rao	A comprehensive investigation of structural and optical properties of Mn:ZnS nanostructured thin films for optoelectronic applications
11	120	Ramesh S. Bhat	Electrochemical Investigation Of Zn-Fe Alloy Coated Mildsteel For Automobile Applications
12	122	Rajammal Karuppiah	Synthesis and structural properties of CuO coated LiMnPO4 cathode materials for high energy lithium-ion batteries
13	134	Pradeep Nayak	Designing Chitosan And Pva Based Biopolymer Blend Films: A Study On Electrolyte Performance And Composition Optimization
14	140	Anvith Reddy Singireddy	High purity Hydrogen production using Sorption enhanced steam methane reforming (SESMR)
15	141	Likith Raj	Enhancement of Convective Heat Transfer in Moving Porous Semi-Spherical Fins using Hybrid Nanofluids with Shape-Optimized Nanoparticles in Ethylene Glycol-Water Base Fluid
16	144	Vidyalakshmi V	Optimizing Nickel Oxide Thin Films through Spray Pyrolysis: Influence of Spray Rate on Growth and Characteristics
17	145	Mahima Almeida	Phase and microstructure stability studies on doped Lanthanum Zirconates for hightemperature applications

## Category 4: Nanotoxicity and Regulatory

Sl. No	Abstract ID	Name of the presenter	Title of the poster
1	19	Amatha S	Tackling The Challenges Faced In Development And Regulatory Approval Of Generic Version Of Nanomedicines
2	34	Swohinee Sarkar	Regulatory Challenges in Nanomedicine Development
3	51	Prerana V Poojary	Nanomedicine – A Regulatory Landscape
4	57	Anusha	Nanomaterials In Medical Devices and Its Regulatory Considerations
5	59	Chesta Agarwal	Nano Sunscreens: Role of Nanotechnology, Recent Advancements and Regulatory Overview
6	60	Ankitha RB	The Role of Nanotechnology, Recent Advancements, and Regulatory Challenges in Nano- Cosmeceuticals: FDA Perspective
7	63	Santosh Marennavar	Global Regulatory Prospective of Nano Cosmeceuticals
8	97	Mugdha Kulkarni	Towards Safer Nanomedicine: Embracing Safety-by-Design in Biomedical Research
9	49	Yogendra Nayak	Zebrafish Toxicity Model For Mesoporous Silica Nanoparticles - Future Perspectives
10	68	Punith Krishna Alahari	Safe Use of Nanomaterials: A Review On Nanotoxicity And Nanosafety
11	105	Rahul Clare	AI in Nano-Technology (ANT): A scoping review of existing policies interlinking AI and Nanotechnology in healthcare policy
12	109	Adresha Saha	Fate, Safety and Toxicity of Nanoparticles Exposure to Human

13	148	Deepak Kulkarni	Nano-Threats: Understanding and Evaluating the Toxicity of Nanomaterials
14	114	Sriya Lingamagunta (Nanomedicine)	Exosomes: A Novel Nanoplatform For Drug Delivery

## **Category 5: AI and Others**

Sl. N	Abstraction ID	Name of the presenter	Title of the poster
1	8	Tarun Mateti	A polynomial equation devised using machine learning to predict the antibacterial activity of silver nanoparticles
2	30	Annamalai Muthusamy	Chemical and green synthesis of CuO nanoparticles and its impact on pearl millet seed germination and morphological traits
3	31	Deeksha K. J.	Development Of Chitosan-Based Magnetite Nanocomposite: An Efficient Adsorbent For The Remediation Of Phosphate From Wastewater
4	48	Vipul Gupta	Nanomaterials for 3D Printing Nano- and Micro-Porous Silicon-based Glass and Ceramics
5	47	Sakshi Hanmant Shinde	AI in Nanotechnology
6	72	Abhijit Singh	Revolutionizing Early Leaf Disease Detection and Classification: An In-Depth Survey of Innovative Strategies Leveraging Residual Networks for Unprecedented Precision, Efficiency, and Robustness in Machine Learning-driven Plant Health Monitoring
7	77	Pandillapally Rama	Programmable Assembly of Nanorods in Microfluidics

8	96	Saradindu Banerjee	In Silico modelling and in vitro characterization to develop a novel drug which can inhibit one of the principal protein translation machineries, m7G-eIF4E - An innovative approach
9	102	Dhimahi Bhatt	In-silico study of selected Ayurvedic nanocomposites
10	111	Raksha S Shettigar	Nanotechnology in Food Science: Opportunities and Challenges
11	135	Chakkati Swayam Raj Yada	Experiment, Characterization and Applications of Bio-Enzymes
12	138	Dr. Shashikala S V	A Natural Interaction Paradigm to Facilitate Cardiac and Nerve Anatomy Education using Augmented Reality and a Surgical Metaphor
13	139	P. Harish	Bioproduction of Advanced Biomaterials: Harnessing Bacterial Cellulose and Yeast Symbiosis for Nanocomposite Leather Fabrication
14	142	Chetteente Meethal Ragisha	Optically controlled liquid-liquid interface mediated patterning of metallic nanoparticles
15	146	Vinayak Bodhankar	A Sensitive Lc-Ms/Ms Method For Quantitative Estimation Of Dolutegravir In Human Plasma