



Safe • Simple • Sustainable

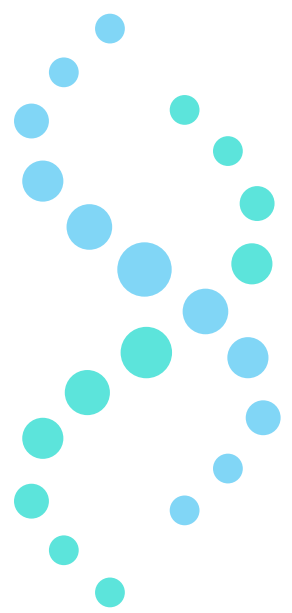


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Our Partners



icmr भारतीय आनुवंशिक
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INDIAN COUNCIL OF
MEDICAL RESEARCH
New Delhi, India



LIHAN BIOLOGICS
DESIGN AND DEVELOP EXPOSURES WITH DESIRED FEATURES

DEPARTMENT OF BIOTECHNOLOGY
MINISTRY OF SCIENCE & TECHNOLOGY, GOVERNMENT OF INDIA

Ongoing Collaborations



AIIMS
New Delhi



BASAVARAKAM INDO-AMERICAN
CANCER HOSPITAL & RESEARCH INSTITUTE



KARKINOS

Company Journey

Pioneering Innovation and Market Success



As a renowned researcher, **Dr. Vangala** faced these challenges during his early career, turning each obstacle into an opportunity to overcome the hazards and develop an unprecedented product. With relentless determination and a keen understanding of the market's needs, the concept of **instaPRESERVE™ (IP)** was conceived. This endeavour was not merely about introducing a product; it was about crafting an experience that addressed critical issues in the field. The launch of IP stood as a testament to the collaborative spirit, resilience, and creativity that fuelled its development.

The journey didn't stop with the creation of a revolutionary solution. Dr. Vangala and his team meticulously planned the product's market entry, strategically navigating the landscape with targeted marketing campaigns and participation in prestigious events like the **Bangalore Tech Summit**, **G20 Summit**, and the **APCON Conference** at AIIMS, Delhi. Independent testing partner with esteemed institutions such as **Basavatarakam INDO-American Cancer Hospital** Hyderabad, **HCG Cancer Hospital** Banga-

lore, **Karkinos Healthcare** Private Limited Kochi, **Sri Shankara Cancer Hospital and Research Centre** Bangalore, and the **National Institute of Oceanography** further solidified our commitment to making a meaningful impact.

The company goal extended beyond merely introducing a product; it aimed to establish a presence that resonated with our target audience, setting the stage for enduring success. The true measure of our triumph lies in the widespread acceptance and positive reception IP received in the market. Witnessing hospitals, research institutes, and government organizations embracing and integrating our solution into their vital research work has been immensely gratifying. The journey towards pioneering innovation and market success is not just a chapter in our story; it is an ongoing narrative of dedication, ingenuity, and a shared commitment to advancing the frontiers of science and medicine. As we continue to evolve, our story remains intertwined with the positive impact IP has made in the world, leaving an indelible mark on the landscape of biospecimen preservation.

instaPRESERVE™ *In a nutshell*

In the ever-evolving realm of biological specimen collection and storage, traditional methods have grappled with challenges that hinder efficiency and sustainability. Issues such as cumbersome cold-chain logistics, safety concerns, environmental impact, and the reliance on toxic chemicals like formalin have persisted. At **Migene**, we stand at the forefront of innovation, and we are excited to introduce **instaPRESERVE™**—a pioneering discovery meticulously crafted to overcome these obstacles by prudently performing collection, transport and storage of biospecimens at **AMBIENT TEMPERATURE**. This is not just a product; it is a commitment to redefine the landscape of biological specimen management, ensuring a future where science and sustainability seamlessly coexist.

<i>Current Challenges</i>	<i>Persistent Success by instaPRESERVE™</i>
Cold Chain Reliance: Traditional cold chain systems pose constraints on transport and storage.	Room-Temperature Stability: Streamlines specimen handling at room temperature by eliminating reliance on cold-chain systems.
Toxic Chemical Risks: Use of harmful chemicals like formalin poses risks to human health.	No-toxic Formulation: Ensures a safer working environment by replacing formalin with a non-toxic formulation. IP is biocompatible and non-carcinogenic as well.
Intricate Storage Methods: Specific storage requirements complicate the process.	Simplified Storage Process: Allows versatile application across various biological samples, simplifying storage procedures.
Expensive & Labour-Intensive Preservation: Traditional methods are costly and require extensive labor.	Cost-effective & User-Friendly: Provides superior preservation in a cost-effective manner, reducing financial burdens.
Negative Environmental Impact: Conventional approaches contribute to environmental harm.	Sustainable Solutions: Formulation with no negative environmental impact, aligning with eco-conscious practices.
Pathogenicity Concerns: Worries about handling pathogenic materials safely.	Precluding Pathogenicity: Eliminates the need for BSL 3 facilities, simplifying handling, storage, and transport for enhanced safety and reduced environmental impact.

instaPRESERVE™ Products

instaPRESERVE™ MedSafe



MedSafe



Heart



Liver



Brain

instaPRESERVE™ ProteinSafe



ProteinSafe



Blood



Nail



Tooth

instaPRESERVE™ TissueSafe



TissueSafe



Tissue samples



instaPRESERVE™ NucleoSafe



NucleoSafe



Blood



RNASafe



Tissue sample

instaPRESERVE™ RNASafe

instaPRESERVE™ *Products Catalogue*

instaPRESERVE™ product catalogue and their applications

Name	Method	Gel/ Solution	Application	Catalogue No.	
instaPRESERVE™ Nucleosafe-G	Sample collection and storage	Gel	DNA isolation	IPNSG-001	
instaPRESERVE™ Nucleosafe-L		Solution		IPNSL-001	
instaPRESERVE™ RNASafe			RNA isolation	IPRS-001	
instaPRESERVE™ ProteinSafe-G		Gel	Protein Isolation	IPPSG-001	
instaPRESERVE™ ProteinSafe-L		Solution		IPPSL-001	
instaPRESERVE™ TissueSafe-G		Gel	Histopathology	IPTSG-001	
instaPRESERVE™ TissueSafe-L		Solution		IPTSL-001	
instaPRESERVE™ MedSafe-G		Embalmimg	Gel	Biopsy specimens	IPMed-001
instaPRESERVE™ MedSafe-L			Solution		IPMed-002
instaPRESERVE™ Embalmimg				Embalmimg	IPELL-001

Collaborate to Elevate

instaPRESERVE™ Unveiling Stories of Success

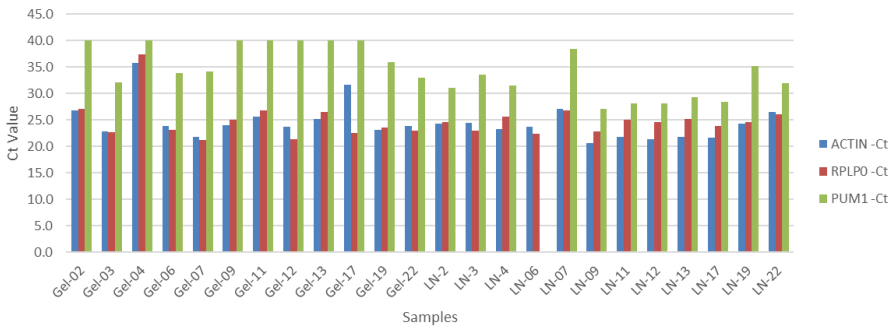


instaPRESERVE™ for the collection of clinical specimens in low-resource settings

Dr Aruna Korlimarla
Principal Scientist,
Research, Sri Shankara
Cancer Hospital and
Research Center

Dr. Aruna Korlimarla, has successfully completed a study on the collection of oral cancer patients' buccal smear samples in liquid nitrogen and instaPRESERVE™ and performing genomics evaluation. The results were promising that the samples collected in instaPRESERVE™ handled at room temperature during the study period were very much suitable for molecular analysis. Together, our efforts, indicate the impactful replacement of liquid nitrogen with the innovative instaPRESERVE™.

Comparison of storage methods of Oral lesion samples collected in low resource setting camp site



Comparison of realtime Ct value of housekeeping genes ACTIN, RPLP0, PUM1 from samples stored in instaPRESERVE™ and liquid nitrogen. The result indicates the gene expression are comparable ($p=0.1$)

instaPRESERVE™ in BIOBANKING

Dr. Abhishek Mohanty

*Program Director and Head,
HCG Centre for Biorepository
and Biobanking,*

*Chair Person: HCG Scientific
Research Committee (SRC)*

*Regional Director (South-India):
Bio-Bank India Foundation (BBIF)*

Dr. Abhishek Mohanty from Healthcare Global Enterprises Ltd. (HCG) in Bangalore, has taken up a groundbreaking effort in establishing a comprehensive BIOBANK with instaPRESERVE™. exceptional performance in maintaining sample integrity over six months, reinforces its reliability for long-term cancer research. This collaboration not only strengthens our commitment to scientific excellence but also marks a significant milestone in advancing the quality and longevity of stored cancer samples, achieved through our shared pursuit of excellence with HCG.



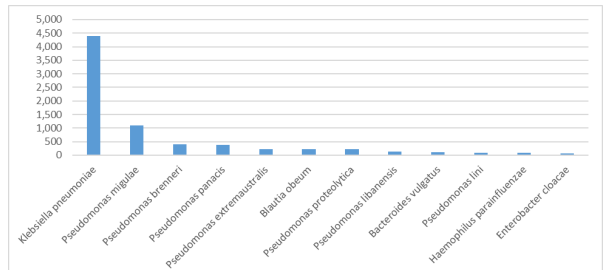
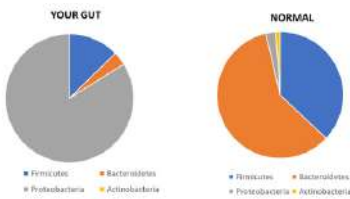
Biobanking of cancer tissue samples in instaPRESERVE™

Specimen type	Time Point	DNA Conc. (ng/ul)	260/280 ratio	RNA Conc. (ng/ul)	260/280 ratio
Buccal mucosa	0 Month	142.8	1.76	12	1.67
	6 Month	252.7	1.76	85.6	1.85
Kidney	0 Month	228.9	1.82	54	1.82
	6 Month	345.7	1.82	37.4	1.82
Breast	0 Month	156.5	1.78	119.6	1.88
	6 Month	167.2	1.78	59.8	1.84
Ovary	0 Month	4.3	1.2	0.5	1.43
	6 Month	5.1	1.39	3.5	1.23
Colon	0 Month	114.4	1.84	56.5	1.84
	6 Month	102.1	1.8	30.3	1.8

instaPRESERVE™ in Gut microbiome diagnostics

Dr. C. Vikram Belliappa
HOD of Surgical Gastroenterology and Minimal Access Surgery
 Vydehi Super Speciality hospital, Bangalore

Dr. C. Vikram Belliappa, Head of Surgical Gastroenterology at Vydehi Super Speciality Hospital, has evaluated on application of instaPRESERVE™ in gut microbiome diagnostics. The endoscopic biopsy samples were transported in instaPRESERVE™. This innovative approach to sample collection, storage, and transport, has advanced microbiome analysis significantly. With his clinical expertise, instaPRESERVE™ has been confirmed as a sustainable solution with clinical utility.



Gut microbiome profiling of samples stored in instaPRESERVE™

instaPRESERVE™ in Oceanic biospecimen offshore collection

Nizam Ashraf
National Institute of Oceanography, Regional Centre, Ernakulam, Kerala

Nizam Ashraf from the National Institute of Oceanography, Cochin, Kerala, has envisioned instaPRESERVE™ as a perfect alternate for cryogenic-based marine sample collection. Ashraf's expertise focused on extracting DNA from aquatic plants Eichornia and Salvinia, with remarkable success, even extracting traces of DNA. This effort highlights instaPRESERVE™'s potential in revolutionizing marine sample collection and unlocking valuable genetic information, contributing to oceanography research advancement.



Prawn

Eichornia plant



instaPRESERVE™ Vs Formalin: A Revolution in Histopathology

**HCG - Healthcare
Global Enterprises Ltd.
Bangalore**

*Dr. Abhishek Mohanty,
Program Director and Head,
HCG Centre for Biorepository
and Biobanking*

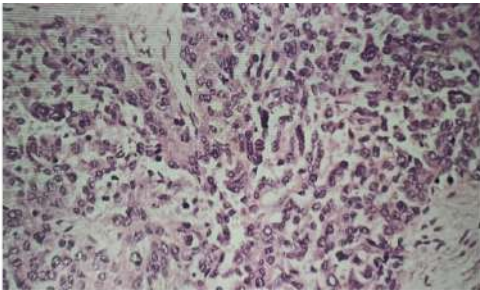
**Basavatharakam Indo-
US Cancer Hospital,
Hyderabad**

*Dr. Susheela Kothandapani,
Head, Clinical Laboratory and
Pathology*

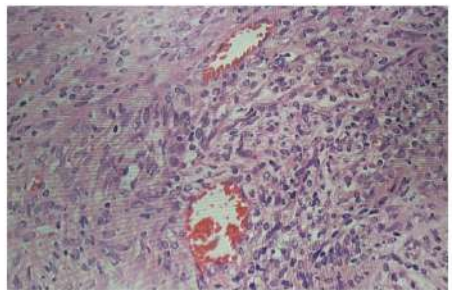
**Karkinos,
Ernakulam,
Kerala**

*Dr Ajit Nambiar and
Dr. Sindhu Govindan*

InstaPRESERVE™ has been validated in replacing formaldehyde/formalin-based solutions, a gold standard for preserving cells and tissues in histopathology. Formalin is associated with occupational health hazards while, instaPRESERVE™, offers safer and greener chemistry. This non-toxic fixative extends its utility beyond histopathological studies, showcasing its versatility in molecular analysis.



H&E image of the tissue collected and stored in instaPRESERVE™



H&E image of the tissue in formalin



InstaPRESERVE™ in Cadaver Embalming

Dr. Ashok Kumar Jaiswal

*Head, Forensic Toxicology,
AIIMS, Delhi*

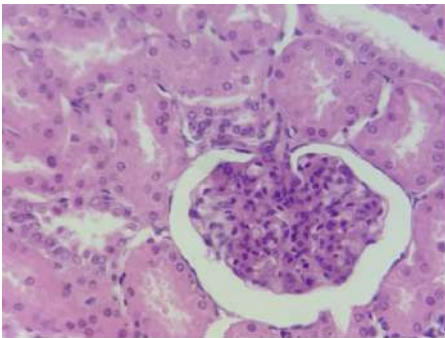
The nature of instaPRESERVE™ has overwhelmed Dr. Jaiswal in venturing into cadaver embalming. instaPRESERVE™ Embalming solution is currently being evaluated by his team in successful embalming of cadavers. This will revolutionize in processing of cadavers with this biofriendly solution and eliminate the hazardous chemical (Formalin).

InstaPRESERVE™ in Veterinary Diagnostics

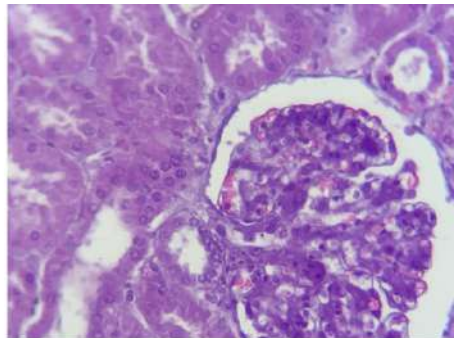
Dr. Amarnath Muthukrishnan

*Veterinary Surgeon, Amulya
Pet Speciality Clinic, Salem*

Forging a proud partnership with Amulya Pets Speciality Clinic, under the leadership of Dr. Amarnath Muthukrishnan, we initiated a pioneering study in histopathology within veterinary medicine. In a swine model, the tissue morphology of samples fixed in instaPRESERVE™ was compared with that of formalin. Under Dr. Amarnath's expert guidance, the study yielded remarkable results, showcasing that the tissue morphology of instaPRESERVE™ fixed samples was comparable to traditional formalin-fixed tissue. This collaborative effort not only signifies a breakthrough in veterinary histopathology but also positions instaPRESERVE™ as a successful and reliable alternative for preserving tissue integrity in the realm of animal healthcare.



Swine kidney section fixed in instaPRESERVE™



Swine kidney section fixed in Formalin



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