PUSHPAGIRI RESEARCH CENTRE UPDATES

Breaking News:

Cutting-Edge Christ Freeze Dryer Model 'Alpha 1-2 LscBasic' Lyophiliser Machine Arrives!

Dear esteemed researchers and doctors and valued Readers,

We are thrilled to announce a groundbreaking addition to our research equipment - the highly advanced Christ Freeze Dryer Model: Alpha 1-2 LscBasic Lyophiliser Machine with Chemical Resistant Pump. This state-of-the-art lyophilizer has been installed in our facility, bringing with it a myriad of opportunities for groundbreaking research and advancements in various scientific disciplines.

What is the Christ Alpha 1-2 LscBasic Lyophiliser Machine?

The Christ Alpha 1-2 LscBasic Lyophiliser Machine is a cutting-edge freeze-drying system designed to preserve and extract delicate substances without altering their chemical structure. With this revolutionary equipment, we can now efficiently freeze-dry organic materials, such as pharmaceuticals, biological samples, and various research specimens, all while maintaining their original properties.

Key Features:

1. **Chemical Resistant Pump:**The inclusion of a chemical resistant pump in this model ensures greater safety and longevity, allowing us to work with a wider range of substances, including potentially hazardous chemicals.
2. **Advanced Freezing Technology:** The Alpha 1-2 LscBasic utilizes cutting-edge freezing technology to ensure precise and uniform freezing of samples, minimizing any damage caused during the process.
3. **User-Friendly Interface:** The lyophilizer is equipped with an intuitive user interface, enabling researchers and technicians to operate the machine efficiently, saving time and effort.
4. **High Capacity:** The Alpha 1-2 LscBasic boasts an impressive capacity, accommodating larger batches of samples, thereby increasing our research throughput.

What it means for Pushpagiri Research Centre:

The acquisition of the Christ Alpha 1-2 LscBasic Lyophiliser Machine marks a significant milestone for our research center. Its advanced capabilities unlock the potential for conducting cutting-edge experiments and accelerating our scientific discoveries. Researchers across diverse fields will now have access to a powerful tool that aids in studying complex biological processes, developing novel pharmaceutical formulations, and preserving valuable samples for future investigations

THE INDO- OMAN PROJECT TEAM

INDO –OMAN PROJECT ON UTILIZATION OF FISH SKIN AND COLLAGEN-BASED SCAFFOLDS FOR WOUND HEALING

Research Team :

Principal Investigator: Dr Jayachandran V.P- Co- Principal Investigators: Dr Umaima Al Hoqani, Dr, Shinisha Sujesh, University of Technology and Applied Sciences, Muscat, Sultanate of Oman

Co investigators : Dr Nebu George Thomas, Pushpagiri Research Centre,

Research Assistant : Mr. Nikhil Krishnan, Pushpagiri Research Centre,

Funding Agency : Ministry of Higher Education, Research and Innovation (MoHERI, Muscat, Sultanate of Oman)

The fishing industry produces a significant amount of waste, including fish scales , skin, bones etc and these wastes are often discarded. Waste management of fish processing industries is a potential theme as untreated waste may lead to offensive odor and have both health and environmental implications. One potential value-added product from fish waste is collagen. The utilization of fish waste to produce value-added products could help to reduce the environmental impact of the fishing industry and create new economic opportunities. Collagen is a natural substance that has a variety of applications, including wound healing, tissue engineering, and cosmetics. Fish skin is a rich source of collagen, and it could be used to produce collagen-based products. Traditional wound dressings, such as gauze and bandages, provide a physical barrier to protect the wound from infection. However, they do not provide any support for the healing tissue, and they can actually delay healing by adhering to the wound bed. over traditional wound dressings. Collagen is a natural substance that is found in the skin, and it is biocompatible and biodegradable. This means that it is non-toxic to the body and it will eventually be broken down and absorbed by the body. Fish collagen-based scaffolds are a promising new type of wound dressing that offers several advantages over traditional wound dressings. Fish skin is also a sustainable and affordable source of collagen. The utilization of fish waste to produce value-added products could help to reduce the environmental impact of the fishing industry and create new economic opportunities. The findings jointly made by the team is going to be patented soon. Proposed project is to develop marine based composite scaffolds for tissue engineering applications.

Institutional Animal Ethics Committee (IAEC)

An institutional animal ethical meeting was conducted at Pushpagiri Research Centre on 29th July 2023 at 10. a.m. The main nominee for this meeting was Dr. Sachin J Shenoy, Scientist (Veterinary), Division of In vivo Models and Testing, Department of Applied Biology, Biomedical Technology Wing Sree Chitra Tirunal Institute of Medical Sciences And Technology.

Dr. Santhosh Pillai, (Professor& HOD Department of Pharmacology)Chairman IAEC;

Dr. Soumya R.S, (Scientist Pushpagiri Research Centre)Member Secretary IAEC;

Dr. Punya Chandran, (Assistant Professor Department of Physiology) Scientist from different biological discipline;

Dr. Sreeja Nair, (Assistant Professort Department of Microbiology)Scientist from different discipline;

Dr. Unni Krishnan K, Veterinarian; Dr. Sibi P.I, Socially aware nominee, and Dr. Nishant Kumar Gupta, Link Nominee, attended the meeting. 13 proposals were presented for ethical sanction. The meeting came to an end at 3.30 pm, along with an Animal house visit by the IAEC members. The next IAEC meeting is on December 2023.