

## SS INSTITUTE OF PHARMACY

(A unit of VS Educational & Charitable Trust)

Approved by Tamilnadu Government & Pharmacy Council of India, New Delhi.

Affiliated to the Tamilnadu Dr. M.G.R. Medical University,

and The Directorate of Medical Education, Chennai.

Date: 16.08.2022

NUR (PO), SANKARI (TK). SALEM - 637301

To

Managing Director, Biomiicron Pharma India, Chennai, Tamil Nadu.

Dear Sir/Madam,

Sub: Request for Financial Support and Guidance for R&D Work in Funded Project – Reg

This letter is to bring to your kind notice that we (SS Institute of Pharmacy, Salem) are involving our staff and students in research-oriented activities. In this regard, we kindly request your support and permission to undertake a consultancy-related project titled "Formulation and Evaluation of Matrix-Type Transdermal Patches for Ibuprofen Delivery" in association with your esteemed organization. This collaboration will enrich our knowledge and foster the development of innovative ideas with social relevance.

**Investigator**: Dr.G.Sekar Prof / SSIP

Thanking You,

SANKARI \*

PRINCIPAL.

SS INSTITUTE OF PHARMACY,
KUPPANUR (PO), SANKARI (TK).

SALEM -637301.

NH-544, Kuppanur (Po), Sankari (Tk), Salem(Dt) – 637301, Tamilnadu, India

Phone: 04283 241080 | E-mail: ssip1718@gmail.com | Website: www.ssip.edu.in

**Address:** OLD NO. 18, NEW NO. 32 DR. AMBEDKAR ROAD, KODAMBAKKAM, CHENNAI, Tamil Nadu, India - 600024.

CIN NO: U52100TN2012PTC086554

**REG NO: 86554** 

Contact: 04423652388

Email: biomiicron@gmail.com



To

Dr.G.Sekar Professor, SS Institute of Pharmacy, Sankari, Salem.

Dear Sir,

Subject: Acceptance and Provision of Financial Assistance for Funded Project - Reg.

We are pleased to inform you that the proposal submitted for the project titled Formulation and Evaluation of Matrix-Type Transdermal Patches for Ibuprofen Delivery of Rs. 1,00,000, as the project appears to be innovative. We kindly request the Principal Investigator to submit the monthly report.

Project title	Principal Investigator	Project duration
Formulation and Evaluation of Matrix-Type Transdermal Patches for Ibuprofen Delivery	Dr.G.Sekar	1.5 Years

Thanking you,

Donne

Managing Director,

Biomiicron Pharma India

Chennai,

PRINCIPAL.

SS INSTITUTE OF PHARMACY.

KUPPANUR (PO), SANKARI (TK)

SALEM -637301.



## SS INSTITUTE OF PHARMACY

(A unit of VS Educational & Charitable Trust)

Approved by Tamilnadu Government & Pharmacy Council of India, New Delhi.

Affiliated to the Tamilnadu Dr. M.G.R. Medical University,

and The Directorate of Medical Education, Chennai.

## **ABSTRACT**

## Formulation and Evaluation of Matrix-Type Transdermal Patches for Ibuprofen Delivery

This research explores the formulation and evaluation of matrix-type transdermal patches for the delivery of Ibuprofen, a non-steroidal anti-inflammatory drug (NSAID) commonly used to relieve pain and reduce inflammation. Transdermal patches offer a non-invasive and sustained drug delivery system that improves patient compliance and minimizes gastrointestinal side effects associated with oral administration. The study involves the preparation of matrix-type patches using a polymer blend that ensures controlled and consistent release of Ibuprofen through the skin. Various formulations are developed by optimizing the concentration of polymers such as Eudragit, HPMC (Hydroxypropyl Methylcellulose), and plasticizers like PEG (Polyethylene Glycol) to achieve the desired drug release profile. The patches are evaluated for physical properties, including thickness, tensile strength, and moisture absorption, as well as in vitro drug release and permeation studies. Stability testing will also be conducted to ensure the patches maintain their efficacy over time. The results of this study are expected to demonstrate the feasibility of using transdermal patches as a viable alternative to conventional Ibuprofen delivery systems, offering a more patient-friendly and effective method for pain management.



PRINCIPAL.
SS INSTITUTE OF PHARMACY,
KUPPANUR (PO), SANKARI (TK).
SALEM - 637301.

NH-544, Kuppanur (Po), Sankari (Tk), Salem(Dt) – 637301, Tamilnadu, India Phone: 04283 241080 | E-mail: ssip1718@gmail.com | Website: www.ssip.edu.in