

Cell Culture Plate with Interconnected Wells

[Click Here for Detailed EoI Document](#)

About the Technology:

A simple co-culture platform designed to grow different cell types together, enabling interaction and crosstalk between cells. It provides a more scientifically relevant in vitro model for studying systemic effects of drugs, toxicants, and environmental exposures, particularly through endocrine signaling pathways.

EoI ref. ID: ICMR/EoI/PM/11/Connected Cell Culture Plates/2026

Lead Inventor: Dr. Vibhor Joshi

Institute: ICMR - NIREH

Technology Domain: Medical Device

IP Filing:

Indian Design Registration No. 400143-001

Date of EOI Publication: 14th August 2026

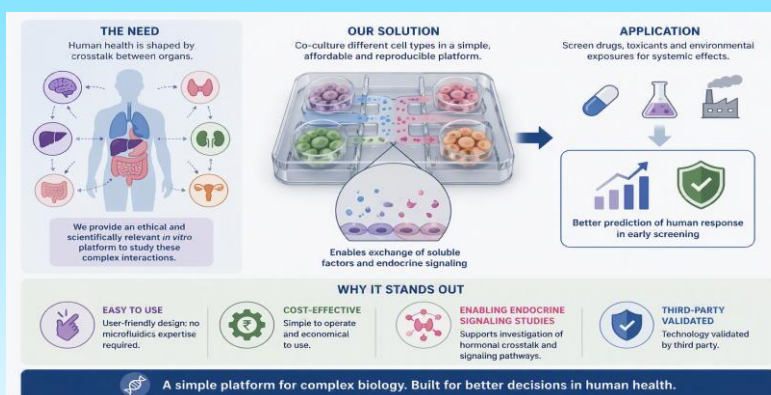
EoI Deadline: 4th September 2026

Need and utility of the Technology from Public health perspective:

Conventional mammalian cell culture models typically represent a single viable cell type and do not capture the complex interactions that occur between different organs and organ systems in the human body. There is a need for an ethical and scientifically relevant platform that can better mimic these interactions during preliminary screening studies.

Technology Readiness level (TRL):

TRL-5: Validated by third party



Validation Status and Study Outcome:

After physically verifying all the claims, it has been confirmed that they are accurate as stated. moreover, it was observed that if a fluid of 0.001 Pa.s (viscosity) is introduced from the inlet opening with a flow rate of 2 ml/min, it starts eluting from the outlet opening after 14.15 (minutes).

Market Potential:

Designed for industrial use, the technology can support drug, toxicant, and environmental exposure screening, offering an easy-to-use and economical alternative that does not require microfluidics expertise.

Unmet Need:

Existing cell culture systems have limited capability to study inter-organ communication and endocrine signaling in a simple and practical manner. Additionally, many advanced platforms require specialized microfluidics expertise, creating a need for an easy-to-use and economical co-culture system.

Publication:

Cell culture plate with interconnected wells, Indian Council of Medical Research, design patent 400143-001, 2023, The Patent office, Government of India