

## Elective in Department of Biochemistry

Hamdard Institute of Medical Sciences and Research and

Associated HAHC Hospital, New Delhi

S.no	Name of elective	Animal Cell culture basics and its application in research and development
1.	Block	I
2.	Department/Area	Biochemistry
3.	Name of mentor/supervisor	Dr Kailash Chandra, Assistant Professor, Biochemistry, HIMSR.
4.	Co-supervisor	Ms Babita Singhal Tutor, Biochemistry, HIMSR
5.	Number of students intake	2-3
6.	Method of selection (if applicable)	Interview/ as per the policy of HIMSR
7.	Objectives	<ul style="list-style-type: none"><li>• Overview of cell culture laboratory, equipment, and applications</li><li>• Aseptic techniques and good cell culture practice (GCCP)</li><li>• Demonstration of different cell types, equipment used in cell culture laboratory and their application in research</li><li>• Preparation of media and sterility testing</li><li>• Hands on training in animal cell culture techniques, passaging and maintenance of cell lines</li><li>• Cryopreservation (freezing and thawing of cell lines)</li><li>• Subculturing, determination of confluency, cell counting, and viability testing</li></ul>
8.	Expected outcomes	<ul style="list-style-type: none"><li>• Successfully maintain cultures of animal cells and established cell lines with good viability, minimal contamination and appropriate documentation.</li></ul>

		<ul style="list-style-type: none"> <li>• Student will be trained for the relevant to cell culture, including preparation and evaluation of media, cryopreservation and recovery, and assessment of cell growth/health.</li> <li>• Students will be trained in various equipment used in cell culture and biomedical research.</li> <li>• Recognize and troubleshoot problems common to routine cell culture.</li> </ul>
9.	Assessment	Feedback/viva voice
10.	Log book	A google form for the day to day activity will be filled by students and the record for the same will be maintained in excel.

*Babita*  
4.12.2023

Ms Babita Singhal  
Tutor, Biochemistry, HIMSR  
(Co-supervisor)

*Kailash*  
4-12-2023

Dr Kailash Chandra,  
Assistant Professor, Biochemistry, HIMSR  
(Supervisor)



Dr. KAILASH CHANDRA  
Assistant Professor, Biochemistry  
HIMSR, Jamia Hamdard  
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Forwarded and Recommended by

HOD, Biochemistry



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