

DEPARTMENT OF BIOTECHNOLOGY AND BIOINFORMATICS

**Advanced Certificate Programme in Stem Cell Biology and Molecular Medicine
(ACP-SCB)
6-Months, Full-time**

Stem cell research will usher the era of regenerative medicine, allowing the creation of cells, tissues and organs to treat or cure diseases and injuries. It will be very "personalized medicine" to provide the specific individual with custom tailored new cells and tissues for organ repair or replacement. Extensive use of stem cells as therapy is coming off age. We have made leaps and bounds in understanding the complexity of 'LIFE'. However, still there is much to be understood. For instance, both pharma and biotech industries, are investing in respective in-house stem cell research heavily, opening huge opportunities for Stem Cell Research. Future clinical trials would be expected to be more efficient and cost effective. However, there is steep dearth of skilled manpower to handle cell cultures and work with cells from various sources. This six months course is designed for the Master's students who want to gain additional expertise and proficiency in stem cell research.

Focus Areas: Molecular Biology, Cell Culture Techniques, Developmental Biology, Bio-markers, Stem cell biology and applications

Course Structure

Course Code	Course name	Credits
SCB-001	rDNA technology + Basics of Bioinformatics	[2 T+1 L]
SCB-002	Developmental Biology	[2 T+1 L]
SCB-003	Molecular Medicine	[2 T+1 L]
SCB-004	Immunology	[2 T+1 L]
SCB-005	Cancer Biology	[2 T+1 L]
SCB-006	Stem Cell Biology	[2 T+1 L]
SSD-001	Soft Skills Development - I	2 T
	Total credits	20

Note: One credit of theory (T) equals 16 hrs. of teaching contact hours & one credit of lab (L) equals 32 hrs. of laboratory work.

Lab Infrastructure

- CO2 -Incubator
- PCR machine
- Laminar Hood
- Tissue culture microscope
- ELISA Plate reader
- Qubit

**Knowledge
Partners**



Eligibility

M.S., M.Sc, M.Tech in Life Sciences with at least 60% aggregate from a recognised University

Faculty

- Dr. Prasad V.L.S. Burra
- Dr. Sudhir Kumar
- Visiting Faculty (Industry Experts)

Contact - HoD

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*For application & selection process, please visit www.isquareit.com
You can also contact Admissions Department*

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