

	<p>TEQIP Workshop on:</p> <p><u>Tissue Engineering: Biomaterials and stem cells for</u></p> <p><u>manufacturing of biological tissues</u></p> <p>Indian Institute of Technology, Hyderabad</p>
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Date: 18-23 July 2016

Venue: IIT Hyderabad

Before lunch: Room 111, Academic block A

After lunch: Temporary Lab 35

Kindly Notice: The schedule and planning of the workshop might change without further notice depending on a number of factors and Organizer's issues, though the overall plan will remain similar. If you have any queries, please feel free to email on teqip-te@iith.ac.in or contact any of the following coordinators. Further details of the workshop can also be obtained at: <http://www.iith.ac.in/teqip/upcoming/TE/index.html>.

Program Schedule

Day 1 (July 18, 2016; Monday)

Day 1		Venue	Co-ordinator
10:00-11:00	Registration and Inauguration	111	
11:00-12:00	Lecture 1: Introduction to tissue engineering and regenerative medicine	111	Dr. Subha N. Rath, BME
12:00-13:00	Lecture C2: Cells used for tissue engineering	111	Dr. Subha N. Rath, BME
13:00-14:30	Lunch		
14:30-16:00	Hands-on-Session 1: Cell thawing, imaging, and counting.	Lab	Dr. Subha N. Rath, BME
16:00-16:30	Tea Break		
16:30-17:30	Hands-on-Session 1: Cell thawing, imaging, and counting. QUIZ.	Lab	Dr. Subha N. Rath, BME

Day 2 (July 19, 2016; Tuesday)

Day 2		Venue	Co-ordinator
10:00-11:00	Lecture B3: Evolution of biomaterials	111	Dr. Atul Deshpande, MSME
11:00-12:00	Lecture B4: Material testing of biomaterials	111	Dr. Mudrika Khandelwal,

			MSME
12:00-13:00	Lecture C5: Study of cell behavior by biotechnology methods	111	Dr. Satyavrata Samavedi, CE
13:00-14:30	Lunch		
14:30-16:00	Hands-on-Session-2: Synthesis of a biomaterial (from Natural sources) and characterization	Lab	(Dr. Mahesh K. Sah/ Dr. Bharat B. Panigrahi)
16:00-16:30	Tea Break		
16:30-17:30	Hands-on-Session-2: Synthesis of a biomaterial (hydroxyapatite) and characterization. QUIZ	Lab	(Dr. Atul Deshpande)

Day 3 (July 20, 2016; Wednesday)

Day 3		Venue	Co-ordinator
10:00-11:30	Lecture BC6: Cell-biomaterial interaction: <i>In vitro</i> testing		Dr. Satyavrata Samavedi, CE
11:30-13:00	Lecture B7: Manipulating natural materials for biomaterial application		Dr. Mudrika Khandelwal, MSME
12:00-13:00			
13:00-14:30	Lunch		
14:30-16:00	Hands on Session-3: <i>In vitro</i> testing: cell seeding on biomaterials		Dr. Subha N. Rath, BME
16:00-16:30	Tea Break		
16:30-17:30	Hands on Session-3: <i>In vitro</i> testing: cell seeding on biomaterials. QUIZ.		Dr. Subha N. Rath, BME

Day 4 (July 21, 2016; Thursday)

Day 4		Venue	Co-ordinator
10:00-11:00	Lecture BG8: Extra-cellular matrix and growth factors used in tissue engineering approach	111	Dr. Falguni Pati, BME
11:00-12:00	Lecture A9: Angiogenesis and vascularization in tissue engineering	111	Dr. Subha N. Rath, BME
12:00-13:00	Lecture G10: Bioreactors to stimulate tissue	111	Dr. Subha N. Rath,

	development		BME
13:00-14:30	Lunch		
14:30-16:00	Hands on Session-4: RNA isolation and PCR of the cell-seeded biomaterial constructs	Lab	Dr. Subha N. Rath, BME
16:00-16:30	Tea Break		
16:30-17:30	Hands on Session-4: RNA isolation and PCR of the cell-seeded biomaterial constructs. QUIZ.	Lab	Dr. Subha N. Rath, BME

Day 5 (July 22, 2016; Friday)

Day 5		Venue	Co-ordinator
10:00-11:30	Lecture B11: Manufacturing methods to make porous implants	111	Dr. Bharat Panigrahi, MSME
11:30-13:00	Lecture BC12: Additive manufacturing (3D printing) in tissue engineering	111	Dr. Falguni Pati, BME
13:00-14:30	Lunch		
14:30-16:00	Hands on Session-5: Imaging of cell-biomaterial constructs	Lab	Dr. Subha N. Rath, BME
16:00-16:30	Tea Break		
16:30-17:30	Hands on Session-5: Imaging of cell-biomaterial constructs QUIZ.	Lab	Dr. Subha N. Rath, BME

Day 6 (July 23, 2016; Saturday)

Day 6		Venue	Co-ordinator
10:00-11:00	Lecture13: <i>In vivo</i> testing and ethical issues	111	Dr. Subha N. Rath, BME
11:00-12:00	Quiz, Concluding remarks	111	Dr. Subha N. Rath, BME
12:00-13:00	Vote of thanks, Feedback.	111	
13:00-14:30	Lunch followed by break-out session		