Utrecht Summer School: '3D Printing and Biofabrication', July 2024		Program			
		Time	**Location**	**Topic**	Speaker
Monday	**15-jul**	**9.30 - 10.00**	**UMC**	Check in and coffee	
		10.00 - 10.15	**Heidelberglaan 100**	Welcome & Course Overview	Jos Malda (UMCU, Netherlands)
		10.15 - 10.40	**Yellow college room**	Student Introductions	Alba (UMCU, Netherlands)
		10.40 - 11.10		Basics of Additive Manufacturing	Riccardo Levato (Utrecht University, Netherlands)
		11.10 - 11.45		3D printing of food	Kyra Konings R&D engineer from Gastronology
		11.45 - 12.45		**Lunch (Included)**	
		12.45 - 13.15		3D technology in modern healthcare	Chien Nguyn (UMCU, Netherlands)
		13.15 - 13.45		Integrating additive manufacturing & AI	Bianca Maria Colosimo (Politecnico Milano, Italy)
		13.45 - 14.15		**Coffee break**	
		14.15 - 14.45		Medical 3D Planning and Printing: Optimal Medical Solutions for Better Clinical Outcomes	Arsham Makaryan (Materialise NV, Belgium)
		14.45 - 16.00		Generation of 3D anatomical models using medical data	Arsham Makaryan (Materialise NV, Belgium)
		16.00 - 16.30		Bioprinting hydrogels to engineer functional tissue mimics	Oksana Dudaryeva (UMCU, Netherlands)
		16.30 - 17.30		Explaining assignments	Jos Malda / Riccardo Levato
Tuesday	**16-jul**	8.15 - 9.00	**University of Applied Science**		
Workshop 3D Printing		9.00 – 9.30	**Location: Padualaan 99**	Introduction fablab	Joris van Tubergen
		10.00 - 12.00	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Marry Bassa 3. Joris van Tubergen
		12.00 - 13.00		**Lunch with lecture about scanning for protheses**	
		13.00 – 15.30	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Marry Bassa 3. Joris van Tubergen
		15.45 - 17.45	Start workshops, choosing 1 out of 3.	1. Getting to know the firmware: introduction to gcode and using it on bioprinting, z-corp) 2. workflow introduction, 3D drawing (tinkercad) & printing 3. Hands-on machinework with different material (porcelain, chocolate, PLA)	1. Gabriel Groesbacher 2. Marry Bassa 3. Joris van Tubergen
		18.00	End		
Wednesday	**17-jul**		**UMC**		
Applications of 3D biofabrication		08.30 - 09.00	**Heidelberglaan 100**	Introduction to Regenerative Medicine & Stem Cells	Bernard Roelen (Utrecht University, Netherlands)
		09.00 - 09.45	**Yellow college room**	From biomedical bioprinting to biotechnology and towards space	Michael Gelinsky (TU Dresden, Germany)
		09.45 - 10.10		**Coffee break**	
		10.10 - 10.45		Multiphoton Lithography for Biomedical Applications	Aleksandr Ovsianikov (TU Wien, Austria)
		10.45 - 11.45		High resolution printing and 4D biomaterials functionalization	Prof. Cole DeForest (Washington University, USA)
		11.45 - 13.00		**Meet the expert lunch (Included)**	
		13.00 - 13.40		Bioassembly of cells and materials for biofabrication	João Mano
		13.40 - 14.10		Regulatory aspects in biofabrication and medical 3D printing	Hanneke Later Nijland (Genome Lawyers)
		14.10 -14.40		Organ on-a-chip technologies	Andries van der Meer (Twente University, Netherlands)
		14.40 -15.00		**Coffee break**	
		15.00 -15.30		Electrowriting in tissue engineering	Tomasz Jungst (Wuerzburg University, Germany)
		15.30 - 17.00		Work on assignment	
Thursday	**18-jul**		**Hubrecht / RMCU**		
Applications of 3D		8.45 - 09.15	**Uppsalalaan 8**	Volumetric Bioprinting for Fabrication of Highly Complex Living Structures	Paulina Nunez Bernal (UMCU, Netherlands)
		09.15 - 9.45		Biofabrication to boost cellular agriculture	Matt Baker (ipv Lorenzo Moroni)
		9.45 - 10.00	***Auditorium 08.30 -12.45***	**Coffee break**	
		10.15. 10.50		Printing cartilage	Jos Malda (UMCU, Netherlands)
		10.50 - 11.15		Adult Stem Cells for Advanced In Vitro Models and Whole Organ Engineering.	Bart Spee (Utrecht University, Netherlands)
		11.15 - 11.45		How to advance myocardial repair - Printing cardiac tissue?	Alain van Mil (UMC Utrecht)
		11.45 - 12.15		Building a (vascularized) proximal tubule	Anne Metje van Genderen (Utrecht University, Netherlands)
		12.00 - 13.00		**Lunch (included)**	
		13.00 - 14.00	***Room 3***	Perspectives in the biofabrication industry	Jasper van Hoorik (BioINX), Fabien Guillemot (Poietis), Mauro Petretta (regenHu), Pierre-Alexandre Laurent (Cellink)
		14.00 - 17.15		Laboratory tour and 3D bioprinting workshop	
				Station 1 - Extrusion printing	Davide Ribezzi
				Station 2 - Melt Electrowriting	Lennard Spauwen
				Station 3 - Volumetrci printing and DLP	Sammy Florczak
				Station 4 - LIFT printing	Fabien Guillemot
				Station 5 - Microfluidics and Organ-on-a-chip	Nuria Rodriguez
				Station 6 - Meet the Industry (BioINX, Poietis, BICO, RegenHU)	Industry representatives + booth in the green area
		17.15 - 18.00		Work on assignment	
Friday	**19-jul**	9.00 - 9.30	**UMC**	Key collection	Riccardo Levato
Presentations Assignments Wrap up		9.30 - 10.30	**Heidelberglaan 100**	Unconventional Additive Manufacturing Methods for Diverse Biomedical Applications	Yu Shrike Zhang
		10.30 - 12.00	**Yellow college room**	Student presentations	
		12.00 - 12.15		Announcement of award for best presentation	
		12.15 - 12.45		Wrap-up	
		12.45 - 14.00		**Class Lunch (included)**	