

INSTITUTE

Core Techniques in Protein and Genetic Engineering

Oncology 675-001

July 18-22, 2022

Schedule:

Date	Time	Module	Instructor	
Monday, July 18				
Asynchronous Pre-	-work and Evaluatio	n Materials		
Please check Canva	s for recordings and	evaluation materials, which must l	be completed prior to attending	
in person.				
		Lecture	Sarah Teter	
		Basics of nucleic acid isolation		
		Lecture	Rod Pennington	
		PCR Technologies		
Additional	Nucleic acid isolation quiz			
Assignments:				
In-Person Schedul				
	9:00a – 9:30a	Welcome and Introductions	Amy Prevost	
	9:30a – 11:00a	Laboratory	Dana Brecklin, Amy Prevost	
		Nucleic acid isolation from		
		tissues		
	11:00a -12:30p	Lecture	Dick Burgess	
		Overview of protein		
		expression and purification		
	12:30p – 1:30p	Lecture	Jim Hartnett	
	1 22 2 15	Cloning tools and techniques		
	1:30p – 2:15p	Lecture	Rod Pennington	
	2.45	PCR Basics		
	2:15p – 3:00p	Laboratory	Natalie Betz, Amy Prevost	
		Cloning –		
Tuesday July 10		RT-PCR amplification		
Tuesday, July 19			<u> </u>	
•	-work and Evaluation		ha camplated prior to attanding	
	s joi recordings and	evaluation materials, which must l	be completed prior to dittending	
in person.	Ī	Lecture	Pod Ponnington	
		PCR Technologies	Rod Pennington	
Additional	Poaltimo DCP qui	<u> </u>	ı	
Assignments:	Real time PCR quiz	z, ciorinig quiz		
In-Person Schedule	<u> </u>			
in-r erson senedul	9:00a – 10:30a	Laboratory	Natalie Betz, Amy Prevost	
	J.000 10.300	Cloning – RT-PCR analysis and	Nature Betz, Arriy Frevost	
		ligation reaction		
	1	iigation reaction		

	10:30a – 12:30p	Lecture and Laboratory	Doug White, Amy Prevost
		Plasmid Purification	
	12:30p – 1:00p	Lunch	
	1:00p – 3:00p	Laboratory	Natalie Betz, Amy Prevost
		Cloning – Transformation	,,
		Chalk Talk and Laboratory	
		RT-qPCR	
		Laboratory	
		Plating cells	
Wednesday,			
July 20			
•	e-work and Evaluatio		
	as for recordings and	evaluation materials, which must l	be completed prior to attending
in person.	1	Trans.	London
		Lecture	Carl Strayer
A ababita a a ab	Discould a sifteening	Reporter Gene Assays	
Additional	Plasmid purification	on quiz	
Assignments:			
In-Person Schedu	T	1	1
	9:00a – 11:00a	Lecture and Laboratory Transfection	Erica Golueke, Amy Prevost
			Guest: Sandy Tseng
	11:00a – 12:30p	Laboratory	Natalie Betz, Amy Prevost
	•	Analysis of RT-qPCR Data	, ,
		Laboratory	
		Start Colony PCR	
	12:30p – 1:15p	Lunch	
	1:15p – 2:00p	Lecture	Elizabeth Caine
		Using Halotag to study protein	
		degradation	
	2:00p – 3:00p	Lecture	Mike Rosenblatt
	2.000 3.000	Characterizing Proteins	Wince Resemblate
Thursday, July 21			
Asynchronous Pr	e-work and Evaluatio	n Materials	
Please check Canv	as for recordings and	evaluation materials, which must l	pe completed prior to attending
in person			
Additional			
Assignments:			
In-Person Schedu	ıle		
In-Person Schedu	9:00a – 10:00	Laboratory	Amy Prevost
In-Person Schedu		Laboratory Protein purification from	Amy Prevost

	10:00a – 11:30a	Lecture	Rachel Ohana
	10.000 11.500	Protein purification from	Nacher Offaria
		mammalian cells using tags	
	11:30a – 12:15p	Laboratory	Amy Prevost
	11.50a – 12.15p	Protein purification from	Allly Plevost
		mammalian cells using tags	
	12:15- 1:15-	Lunch	
	12:15p – 1:15p		A Dec. and
	1:15p – 3:00p	Laboratory	Amy Prevost
		Gel analysis colony PCR	
		Protein purification form	
		mammalian cells using tags	
Friday, July 22			
Asynchronous Pr	e-work and Evaluatio	n Materials	•
•		evaluation materials, which must	be completed prior to attending
in person	, ,	,	, ,
·		Lecture	Chris Eggers
		Western Blot, ICC and ELISA	
Additional	TBD		
Assignments:			
In-Person Schedu	ıle		
	9:00a – 10:00a	Lecture	Chris Eggers
		Western Blot and protein	
		analysis	
	10:00a – 3:00p	Laboratory	Chad Zimprich, Amy Prevost,
	·	Western Blot	Erica Golueke
		Transfection results	
		Mammalian protein	
		purification results	
		Wrap up and Closing	