



Protein is Cash: An Introduction to Biomanufacturing Workshop

Finger Lakes Community College
3325 Marvin Sands Drive, Canandaigua, NY 14424
June 27th – June 30th 2017

Hosts: **James Hewlett, MS**, Director of Biotechnology and Biomanufacturing, Finger Lakes Community College; Co-Principal Investigator of the NBC2
Jessica Halliley, MS, Program Manager, NBC2; Biotechnology Program Outreach Coordinator, Finger Lakes Community College

Day	Time	Session	Location
Day 1: Tuesday June 27 th 2017	8:30 - 9:30	Welcome Breakfast/Networking <i>Dr. Nye Welcome</i>	Incubator
	9:30 – 12:30	Welcome to FLCC Biotech Biomanufacturing Overview Metrology / Pipettor Challenge	3675
	12:30 – 1:30	Lunch	Dining Hall
	1:30 – 4:00	Bacterial Transformation Upstream Processing Overview	3675
Day 2: Wednesday June 28 th 2017	8:30 – 1:00	Industry Tour: Vaccinex Tour from 10am-12pm <i>1895 Mt Hope Ave. Rochester, NY 14620</i>	Vaccinex
	1:00 – 2:00	Lunch <i>Return to FLCC</i>	Dining Hall
	2:00 – 4:00	Downstream Processing Overview Transformation Results / Harvest	3675

Day 3: Thursday June 29 th 2017	8:30 – 9:00	Breakfast Networking	Incubator
	9:00 – 12:30	GFP Culture Lysis / crude extraction Chromatography Overview Buffer Preparation	3675
	12:30 – 1:30	Lunch	Dining Hall
	1:30 – 4:00	Purification of GFP – chromatography	3675
Day 4: Friday June 30 th 2017	8:30 – 9:00	Breakfast Networking	Incubator
	9:00 – 12:30	Quality Control/ Biochemistry Overview SDS PAGE/QC Biochem Lab	3675
	12:30 – 1:30	Lunch	Stage 14
	1:30 – 4:00	SDS PAGE Results Curriculum Development Wrap-up – Survey and CTLE Certificate	3675



Protein is Cash: Introduction to Biotechnology and Biomanufacturing Workshop

Bucks County Community College

June 27th - June 30th 2016

Hosts: **Linda Rehfuss, Ph.D.**, Associate Professor of Biology and Biotechnology (cell: 215-208-1523)

Bucks County Community College, Co-Principal Investigator of the NBC2

Cianna Cooper, Program Manager, NBC2, Bucks County Community College

Day of Workshop	Time	Material Covered	Location
Day 1: June 27, 2016	9:00 – 12:30	Breakfast and Networking Welcome to BCCC and Overview of NBC2 Overview of Biomanufacturing Introduction to Metrology Lecture and Lab	Founders Hall Rm 115/148
	12:30 – 1:30	Lunch	Founders Hall Rm 115
	1:30 – 4:00	Pipetting Olympics Streak plates for bacterial transformation Upstream Processing Overview (if time mammalian cell culture work) Curriculum Development	
Day 2: June 28, 2016	9:00 – 12:30	Breakfast and Networking Bacterial transformation Cell Harvest /Lysis Downstream processing overview	Founders Hall 115/148
	12:30 – 1:30	Lunch	Founders Hall Rm 115

1:30 – 4:00
Chromatography overview
Purification of Green Fluorescent Protein-Chromatography
Curriculum Development

Day 3: June 29, 2016

9:00 – 12:30
Breakfast and Networking
Quality Control Biochemistry Overview
SDS PAGE/QC Biochem Lab
Founders Hall Rm 115/148

12:30- 1:30
Lunch
Founders 115

1:30- 4:00
SDS PAGE/QC Biochem Lab
Curriculum Development

Day 4: June 30, 2016

9:30 – 12:30
Lampire Biological Laboratories Tour,
5185 Apple Butter Rd. Pipersville, PA

12:30 -1:30
Lunch
Founders 115

1:30 – 4:00
Career & Education Paths of Biotech Technicians
Lab wrap-up; Curriculum Development
NBC2 *Protein Is Cash* survey (Penn Hall)



Protein is Cash: Introduction to Biotechnology and Biomanufacturing Workshop

Montgomery County Community College, Blue Bell, PA

June 29th, 30th, July 1st, 2nd, 2015

Hosts: **Maggie Bryans, Ph.D.**, Assistant Professor of Biotechnology and Biology
Montgomery County Community College, Co-Principal Investigator of the NBC2,
Linda Rehfuss, Ph.D., Associate Professor of Biology and Biotechnology
Bucks County Community College, Co-Principal Investigator of the NBC2
Sheila Byrne, Grant Assistant, Montgomery County Community College
Tim Kull, Biotechnology Lab Assistant, Montgomery County Community College

Day of Workshop	Time	Material Covered	Location
Day 1: June 29, 2015	8:30 – 12:30	Breakfast and Networking Welcome to MCCC and Overview of NBC2 – Linda Rehfuss & Maggie Bryans Overview of Biomanufacturing - Linda Rehfuss & Maggie Bryans Break Introduction to Metrology Lecture and Lab – Linda Rehfuss	ATC 2 nd Floor ATC 227
	12:30 – 1:30 1:00 – 4:00	Lunch Verification of pipettor calibration Pipetting Olympics – Maggie Bryans, Linda Rehfuss & Tim Kull Streak plates for bacterial transformation Biotechnology curriculum development	ATC 2 nd Floor ATC 227
Day 2: June 30, 2015	8:30 – 12:30	Breakfast and Networking Bacterial transformation – Maggie Bryans Upstream Processing Overview – Linda Rehfuss	ATC 2 nd Floor ATC 227
	12:30 – 1:30	Lunch	ATC 2 nd Floor

	1:30 – 4:00	Industry Guest Speaker: Tessie McNeely, Ph.D., CSO, PhotoSonixMed <i>A New Treatment for Biofilms</i> Cell Culture Lecture and Demo. – Dr. Stephen Goshorn Assistant Professor of Biotechnology, Bucks County Community College	
Day 3: July 1, 2015	9:30 – Noon	Tour of PA Biotechnology Center Meet at 3805 Old Easton Rd, Doylestown, PA 18902	
	Noon- 1:30	Return trip to MCCC and lunch	ATC 2 nd Floor
	1:30- 4:00	Analyze bacterial transformation Downstream Processing Overview – Linda Rehfuss Chromatography Overview and Lab – Maggie Bryans	ATC 227
Day 4: July 2, 2015	8:30 – 12:00	Breakfast and Networking Career & Education Paths of Biotech Technicians Break Quality Control Biochemistry Overview - Linda Rehfuss SDS PAGE/QC Biochem Lab -Maggie Bryans	ATC 2 nd Floor ATC 227
	12:00 – 1:00	Lunch	ATC 2 nd Floor
	1:00 – 4:00	SDS PAGE/QC Biochem Lab – Maggie Bryans & Linda Rehfuss NBC2 <i>Protein Is Cash</i> survey and wrap up	ATC 227