

## SCOTT VACCARO

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### BACKGROUND SUMMARY

RESEARCH SCIENTIST experienced in biotech new product development, protein expression and molecular biology. Excellent ability to multi-task, prioritize and optimize protein expression in support of a wide variety of projects simultaneously. Able to effectively communicate results and processes to project leads and at project review meetings. Highly regarded for quality and yield of work. **Research experience includes:**

Protein Expression	Wave Bioreactors
-E. coli	FPLC
-Baculovirus	RT-PCR/PCR
-Mammalian	GMP techniques
20 liter Biostats	Molecular techniques

Master of Business Administration (March 2013) **Highlighted courses:**

International Business  
Operations/Project Management/Lean  
Marketing, Marketing Research  
Management, Organizational Behavior  
Managerial Economics  
Strategy and Competition  
Applied Business Statistics

### EMPLOYMENT EXPERIENCE

Sigma-Aldrich/Array Biopharma/Eppendorf 5 Prime/Pfizer/Pharmacia/Monsanto

Sigma-Aldrich

2009-Present

#### Chemist II (R&D New Products, Microbiology)

- Currently involved in the development of recombinant proteins to replace high value native protein production by using microbial/eukaryotic expression systems.
- Responsible for optimization and scale-up of recombinant proteins using animal free components.
- Transfer of manufacturing processes to the production/purification groups for pilot productions runs. Set-up first insect cell platform at Sigma for recombinant production.
- Have demonstrated recombinant protein production can lower costs and increase output and comply with the increasing trend of using animal free materials. Lab supplies management.
- Increasing the versatility of the protein expression group by demonstrating the potential need of eukaryotic cell systems for the more challenging new product development projects.

Array Biopharma

2006-2009

#### Associate Scientist

- Provided expression support for 5-10 projects for the Structural Biology Group primarily from the baculovirus expression system to obtain protein structure.
- Used Wave Bioreactors for 5-25 liter expressions and continuous flow for harvesting large scale expression conditions. Created a more high-throughput environment to meet demand.
- Brought in cell counters for data recording and to optimize expression conditions based on cell morphology and viability.
- Obtained new cell lines and technology to provide more options for difficult to express proteins.
- Provided cloning, purification and crystallography support as needed.
- Have trained several colleagues on cell culture/baculovirus expression techniques.

Eppendorf 5 Prime

2004-2006

**Research Associate IV**

- Performed research and development in Eppendorf 5 Prime Proteomics group.
- Increased protein levels of difficult to express polymerases by microbial fermentation and transferred this technology to manufacturing for production.
- Responsible for bringing in Wave Bioreactor and optimizing protein yield for 25 liter fermentations of thermophiles.
- Optimized expression and purification (FPLC) conditions of thermophilic polymerases and to explore novel PCR systems.

Pfizer/Pharmacia

2001-2004

**Research Associate**

- Performed research in Pfizer/Pharmacia Genomics and Biotechnology /Protein Therapeutics Discovery group. Main duties included protein expression and plasmid construction.
- Worked closely with Bioprocess and Process Development teams.
- Protein expression work was extensive and included E. coli fermentation, both bench top and 10-40 liter fermentation tanks, continuous flow centrifugation, and inclusion body purification.
- Have extensive experience in baculovirus and mammalian cell culture(HEK 293).
- This work supported a vast array of projects, work with a large number of people required coordinating the production and deliverance of product in a timely manner.
- Responsibility was to construct plasmids and express the protein for purification and proliferation and binding assays. Designed novel constructs, RT-PCR/PCR reactions, DNA sequencing, SDS-PAGE, Western blotting, oligo designing, Sequencer and Vector NTI.
- Reduced downtime of baculovirus expression by decreasing contamination and increasing efficiency.
- Have worked closely with Bioprocess group on improving large scale production.

Monsanto/Searle

1995-2001

**Research Assistant**

- Performed research in Monsanto/Searle's Biochemistry and Molecular Biology group in the development of chemotherapy drugs using growth factors.
- Main focus was to express proteins with better solubility and improved activity by experimenting with different E. coli strains and fermentation conditions in ten liter tanks.
- Was responsible for prioritizing and delivering reagents to the protein purifiers in a timely manner.
- Worked with Bioprocess on standardizing protocols for Discovery on small scale protein optimization for more efficient transfer of molecules for large scale production.

**COMPUTER SKILLS**

Microsoft Excel, PowerPoint, Word, SAP, Vector NTI

**EDUCATION**

Webster University, MBA

Culver-Stockton College, B.S., Biology