

ARTHUR L. EDGE III

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SUMMARY

Strategic leader offering over 15 years of broad-based operations experience in the healthcare and biotechnology sectors. Proven ability to lead large teams, drive complex change, and deliver substantial cost and efficiency improvements. Adept at navigating technical and human challenges across dynamic product lifecycles. Successfully accelerated complex projects from concept scouting, research, development, technology transfer, scale up, launch, and commercial manufacture. Passionate about closing the gap between customer needs, business capabilities, and innovation. Will boldly foster a culture of learning and development building up leadership philosophy of communicating an individual's potential. Expertise in cGMP compliance. Masters in Engineering and trained Lean Six Sigma Greenbelt.

EXPERTISE & TECHNICAL SKILLS

Team Leadership • Strategy Development • Product Development • Manufacturing Excellence • Process Improvement
New Venture Due Diligence • Market Research • Intellectual Property Evaluation • Innovation Planning • Capital Planning
Project Management • Risk Analysis • Modeling • Techno-Economic Analysis • Business Intelligence
MS Teams • MS SharePoint • MS Project • Smartsheet • Power BI • MS Office 365 • SAP

PROFESSIONAL EXPERIENCE

AstraZeneca, Gaithersburg, MD July 2020 – Present
Global, science-led biopharmaceutical business with innovative medicines used by millions of patients worldwide.

Senior Director, Global Supply Chain & Strategy, Oncology November 2022 – Present
Supporting Vice President, Vaccine, Immune Therapy, and Oncology Global Supply. Accountable for Oncology brands from clinical development through to end of commercial life cycle. Matrix leader responsible for delivery across 50+ member teams.

Product Champion & Director, Global Technical Operations, Biologics July 2020 – November 2022
Supporting Executive Director, New Products and Technology, manage activities from drug development through regulatory submission, launch, commercial manufacture, and life cycle management of medicines across the Respiratory & Immunology, Oncology, and COVID-19 product pipelines. Matrix leader responsible for delivery across 120+ member teams.

Highlighted Achievements to Date

Supply Strategy

- Direct enterprise Global Supply Teams for **IMFINZI®** and **IMJUDO®**. Tactical and strategic responsibility across complete internal and external manufacturing network.
- Support Integrated Business Planning. Develop Operations 10-year (long term) and 3-year (mid term) strategic and financial plan for brands including supply chain design, capacity planning, capital planning, and COGS projections.
- Manage a \$500 MM inventory, deliver 4.5 million SMUs annually, with **>85% gross margin**. Assess quarterly Rolling Business Updates (RBU) to review current year performance and address gaps against Phased Budget.
- Drive quality and compliance, regulatory, business continuity, and sustainability programs. Ensure flexibility for **>300% growth in volume and \$4B sales/year**. Managed and resolved multi-region supply issues, including demand allocation to avoid patient-impacting stockouts and \$3 MM in product write-offs.
- Champion value steam management (VSM) to free cash through lead time and inventory reductions, optimizing the cost of goods across 14 supply lanes and 10 production plants. **Reducing lead time by 47% within three years while maintaining 99% customer service.**
- Global Operations Lead for clinical phase **Antibody Drug Conjugate** portfolio (10+ assets), enabling launch acceleration, supplier selection, and multi-sourcing procurement and manufacturing strategies. As part of team, gained Senior Executive Team endorsement to establish a **\$1.5B greenfield manufacturing facility** in Singapore by 2029.
- Sponsored implementation of sea freight, passive shipping, and pallet optimization projects to realize \$5 MM in distribution cost savings and up to **98% reduction in Scope 3 carbon emissions** in five markets.
- Manage 'Resilient Supply Chain' strategy roadmap. Focusing on business process establishment, digitalization, and product segmentation projects to develop functional capabilities needed to launch 15 new medicines by 2030.
- Orchestrated robust **industry benchmarking with Nestle USA** senior leadership. Cross-functional deep dive events on lean maturity, manufacturing excellence, E2E supply chain optimization, and continuous improvement culture building.

Technical Strategy

- Global CMC Team Lead (Chemistry, Manufacturing, & Controls) for **FASENRA®**. Drove all major technical program activities including product variation and CMC regulatory filing management for **75+ approved markets**.

- Collaborated with Commercial organization to achieve **\$1B in annual product revenue** and increase brand's competitive advantage. Led life cycle management (LCM) initiatives (e.g. autoinjector, new indications, label updates, new technologies) and CMC related regulatory filings in several international markets.
- Directed team with members representing bulk drug substance, product formulation, device design, quality, packaging, analytical, regulatory, and manufacturing. Achieved **>\$10 MM/year savings** while continuing supply during pandemic.
- Managed partnership with Amgen to support early launch and expansion of combination device product, **TEZSPIRE™** for severe asthma. Managed partnership with Horizon to deliver **UPLZINA®** supply for rare nervous system disorder.
- Developed Data Analytics initiative for collection of process data from new external supply chain nodes to enable decision making and accelerate regulatory filing and approval for **EVUSHELD™** COVID-19 program.

Research & Product Development

- Represented Operations in Global Product Team (GPT) to translate overall product strategy into key deliverables for Operations for accelerated early phase Oncology assets. Guided process development teams for **bispecific antibodies** by defining business cases, implementation roadmaps, and key gaps in manufacturing process design.
- Business process owner for Operations early engagement with R&D. Drove capability build across platform teams for key activities including COGM analysis, manufacturability review for new modalities, site selection, and alignment of clinical and commercial manufacturing network strategy to **achieve 50% reduction in product launch cycle time**.

GlaxoSmithKline (GSK), Rockville, MD December 2016 – July 2020
Science-led global healthcare company that develops innovative Pharmaceutical, Vaccine, and Consumer Healthcare products.

Technical Manager, Manufacturing, Science, & Technology, Pharma Supply Chain

Supporting Global Product Owner, provide technical oversight and product Life Cycle Management for immuno-inflammation therapies including risk management, change management, and knowledge management. ERP/ SAP Super User.

Highlighted Achievements

Manufacturing Operations

- Member of site Extended Leadership Team (ELT) with co-ownership of strategy. Accountable for technical decisions for **BENLYSTA®** (belimumab) autoimmune antibody product. SME for upstream operations. Member of Raw Material Board (RMB), Change Control Board, and Quality by Design (QbD) and Control Strategy Community of Practice.
- Managed four engineers and matrix team of 50+ members/23 functions to achieve 40 metrics for on time manufacture and release of bulk drug at 20K L bioreactor scale. **Reduced deviations 15%** and achieved **93% batch success**.
- Built portfolio of artificial intelligence/machine learning and multivariate process models to optimize operations and prevent **\$15 MM/year** defects in manufacturing and quality attributes. Led projects across Informatics, Digital Data Analytics teams, and National University of Ireland-Galway with **\$200 K/year spend** to increase Statistical Process control (SPC) and Continued Process Verification (CPV) maturity level.
- Drove technology transfer for **first product to launch in new \$139 MM retrofitted 10,000 L scale facility**. Facilitated relationships and confidentiality agreements with 10 suppliers to forecast, cost, and procure >50 materials.
- Headed up workforce initiatives to **improve engagement metrics from 74% to 77%**. Launched Career Growth Network ERG. Relationship manager for nonprofit (NSBE) and university partners (Johns Hopkins, George Mason).

Emergent BioSolutions, Gaithersburg, MD May 2015 – December 2016
Specialty global biopharmaceutical company that develops medical countermeasures (MCMs) against biological health threats

Senior Process Engineer, Process & Analytical Development, Bio-Defense Division

Supporting Director of Engineering and Operations, managed the introduction and transfer of prophylactic and therapeutic technologies between R&D, third party clients, and Contract Manufacturing Organizations (CMO).

Highlighted Achievements

Budget Management

- Navigated complex tech transfer with HHS/BARDA for rapid scale up and delivery of three monoclonal antibodies for animal model (non-clinical) testing of **Ebola therapy**. Reported earned value on **\$19.7 MM procurement contract**.
- Customized and proposed innovation model to capture ideas for new products and business processes across division. Overhauled global procedures to improve tech transfer efficiency, providing maturity model for sites to gap assess.
- Spearheaded critical **capital projects >\$500 K**; Expanded site R&D labs, negotiated vendors, and acquired technologies to ensure operational flexibility and win external partnerships (Business, Government, University).

DSM-Firmenich (formerly Martek Biosciences), Columbia, MD December 2009 – May 2015

Global innovators in nutrition, health, and beauty.

Bioprocess Engineer, Biotechnology, Research & Development

Supporting Senior Manager, Biotechnology R&D, led technical process and product development to convert microbial sources (yeast, microalgae, fungi) into products for Human Health, Animal Health, and Bioenergy global business units.

Highlighted Achievements

Product Innovation

- Developed omega-6 and omega-3 nutritional lipid products for **pregnant and nursing mothers, infants, and adults aged 55+** to support brain, eye, and heart development. Influenced health platform value proposition and discovered intellectual property opportunities via patent investigation, competitive intelligence scouting, and industry meetings.

Program Management

- Led solvent and aqueous extraction, harvest recovery, and process modeling work packages to advance **\$10 MM joint research program** with BP to create renewable biodiesel. Communicated experimental feedback to fermentation, cell physiology, and molecular teams to screen 22 microorganisms. Identified top 3, exceeded stage gate milestones, and generated biofuel for **2012 London Olympics BMW vehicle fleet**.

TRAINING & DEVELOPMENT

2024 Cohort, Management Accelerator Program, (McKinsey & Company), April 2024 – Aug 2024

Gartner Supply Chain Symposium/Xpo, May 2024

Committee, Roundtable on Black Men and Black Women in Science, Engineering and Medicine, (National Academies), Oct 2023

Speaker, Leading Sustainability in Supply Chain, (USA Pharma Supply Chain & Logistics Innovation Programme), Oct 2023

Speaker, Building a Culture of Innovation in Manufacturing (American Pharma Manufacturing & Outsourcing Summit), Oct 2023

NSF ADVANCE Partnership Grant: Amplifying the Alliance to Catalyze Change for Equity in STEM Success (ACCESS+), Jun 2023

Illuminate™ Workshop, Communication Strategy & Change Management (Duarte), Jan 2022

Leader, Big Data Workshop (National Institute for Innovation in Manufacturing of Biopharmaceuticals), Jun 2019 – May 2020

Design Thinking Bootcamp (DC Service Jam), Mar 2018

Situational Self Leadership (Emergent BioSolutions, Ken Blanchard), Sept 2016

QbD - Quality by Design Course - 160 hrs (Emergent BioSolutions, Tom A. Little Consulting), Jun 2015 – Feb 2016

Facility Layout Design for Lean Operations, (Emergent BioSolutions, Maryland World Class Consortia), Feb 2016

Earned Value Management (Emergent BioSolutions), Jul 2015

Project Management Essentials Certification (DSM), Sept 2014 – Nov 2014

Lean Six Sigma Greenbelt Trained (DSM, Paloma Consulting), Jul 2012 – Nov 2012

EDUCATION

Master of Engineering, Chemical and Biomolecular Engineering, Johns Hopkins University – Baltimore, MD

Bachelor of Engineering, Chemical Engineering, University of Michigan – Ann Arbor, MI

BOARD MEMBERSHIPS

Montgomery County Public Schools – Engineering Advisory Board, Chair March 2016 – June 2023

- Assessed completion rate of five-course Project Lead the Way (PLTW) curriculum with **5,000+ student enrollment and \$200 K** annual spend. Advised Assistant Superintendent on organizational restructuring and multi-year strategic plan to equip students for college and workforce entry.
- Became **top-ranked in the country** for the number of high school students completing the PLTW Engineering and Biomedical Science pathway.

National Society of Black Engineers – National Professionals Chair May 2021 – May 2022

- Board Chairman, partnering with CEO and other board members to develop and deliver 5-year Game Change 2025 strategy. **Managing organization-wide business analytics scorecard and \$1.5 MM P&L for division.**
- Established and nurtured relationships with funders, partners, and key membership stakeholders. Launched new in-person and hybrid programs to advance professionals across industry, academia, and government, including the NSBE Pro Leadership Incubator and 11 industry Special Interest Groups.

Re-Nuble (Bio-Ag Startup) – Scientific Advisory Board August 2013 – Jan 2017

- Bio-agriculture startup converting food waste into non-toxic hydroponic nutrients via anaerobic digestion. Reviewed and provided feedback on equipment selection, process design, and formulation approaches.