The growth of biologic medicine

Market Trend

>40% # biologic molecules in R&D: 5,597 in 2003 to 8,617 in 2010

>70% Process titers: 1.96 in 2008 to 3.41 in 2015

400% Biologic product revenues: $50M in 2003 to $200M in 2016

Industry Need

- Flexibility, efficiency, speed
- Lower cost at smaller scale

Single-use technology emerges

Industry’s First

WAVE Bioreactor™ Rocking single-use bioreactor platform

Xcellerex™ Stirred tank single-use bioreactor platform

ÄKTA™ ready & ReadytoProcess™ chromatography columns Disposable chromatography purification solution

GE Solution

Use of single-use technologies

Clinical manufacturing

Upstream: 41% Downstream: 38%

Commercial processes

Upstream: 23% Downstream: 21%

Present

1,501 # biologics in phase II and III

Large pharma R&D ROI: 70% from 2010

Mid-tier biopharma R&D ROI: 43% from 2013

Present

% of industry that thinks manufacturing capacity constraints exist: 17.3% in 2009 to 27.2% in 2016

37% of industry survey respondents have already invested in automation and are investigating additional solutions

The Journey Begins

Future

Industry’s First

KUBio™ and FlexFactory™ Modular facility solution for cGMP mAb production utilizing the FlexFactory single-use platform

Fortem™ single-use film GE’s single-use platform film built for bioprocess

Industry’s First

GE BioPark introduces a biomanufacturing campus that consists of four KUBio facilities supported by GE owned and operated warehouse, media and buffer hydration, utilities, and support services

Digital biomanufacturing - GE’s Predix platform coupled with GE’s expertise in bioprocess applications and technologies enables biopharma manufacturers to improve operational productivity by reducing unplanned downtime, predicting potential adverse manufacturing events, identifying process bottlenecks, and optimizing asset performance

Sources


gelifesciences.com