

# NevoLine™ Upstream platform

## AN INTEGRATED & AUTOMATED SOLUTION

The NevoLine Upstream 플랫폼은 프로세스 강화와 높은 성능의 cost-effective GMP 바이러스 제조를 위한 통합 시스템입니다.



### Multiple viral product applications

Viral vectors for gene therapies, vaccine and oncolytic viruses

#### Flexibility by design

Combining single-use assemblies in process-specific configurations

#### Large-scale capacity in compact module

#### Scalable solution

scale-X™ nitro bioreactor at the core of the platform, offering 200m<sup>2</sup> to 600m<sup>2</sup> of available cell growth surface

#### Reliable operations for reproducible performance

## FLEXIBLE SINGLE-USE ASSEMBLIES

The NevoLine Upstream platform was designed with flexibility in mind to accommodate different process layouts through changes in manifold configurations

### Single or multi-step clarification

- Series of filters in batch or continuous mode
- Increasing product stability and improving process performance

### Product concentration & diafiltration

- In-line or batch tangential flow filtration
- Conditioning product prior to purification
- Reducing process volumes, key reagents usage and operational footprint

### Intensified cell culture & virus production

scale-X<sup>nitro</sup>



- Structured fixed-bed bioreactor offering 200m<sup>2</sup> and 600m<sup>2</sup> of growth surface
- Operated in perfusion or recirculation mode
- Suited for infection and transfection processes

Customize your process-specific configuration

## COMPACT AUTOMATED MANUFACTURING

Integration of automated upstream process in a low footprint module providing clean air microenvironment

### Uni-directional flow cabinet

- Suited for Biosafety Level 1 and Biosafety Level 2 applications
- Integrated HVAC and electrical connections
- Independent air handling unit with HEPA filters
- Meets ISO 7 (Class 10,000) or ISO 8 (Class 100,000) microenvironment standards

### Ergonomic design with guided single-use assemblies

- Reducing length and complexity of manifolds, maximizing footprint utilization
- Easing and accelerating manifold installation and disposal
- Facilitating in-process activities

### Automated process control

- Process recipe configurator
- In-process analytical control and monitoring (temperature, DO, pH, UV and pressure)
- Aseptic bioreactor fixed-bed sampling and media sampling for offline monitoring

