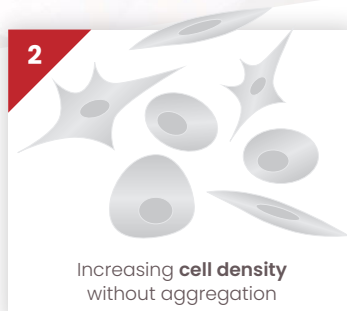


Structured cell immobilization

Redefining capacity in biologics manufacture

Process intensification

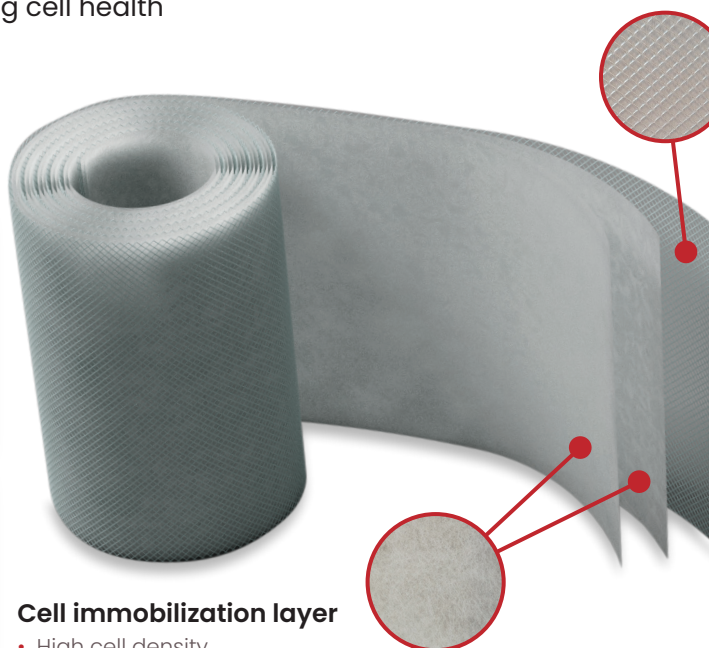
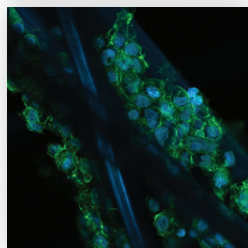
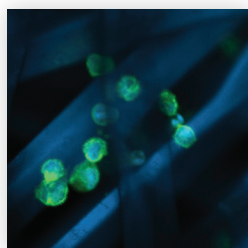
by increasing volumetric productivity



Homogeneous low shear environment

promoting cell health

Cell entrapment reduces host cell protein release and enables cell retention for continuous product harvest.

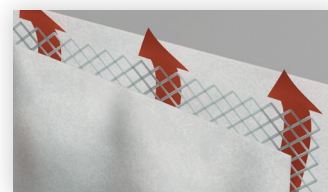


Cell immobilization layer

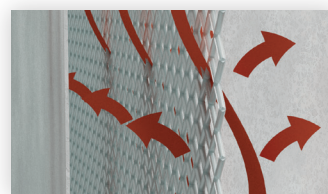
- High cell density
- Cell entrapment
- Impurity reduction

Flow distribution layer

- Structure
- Homogeneity
- Shear reduction



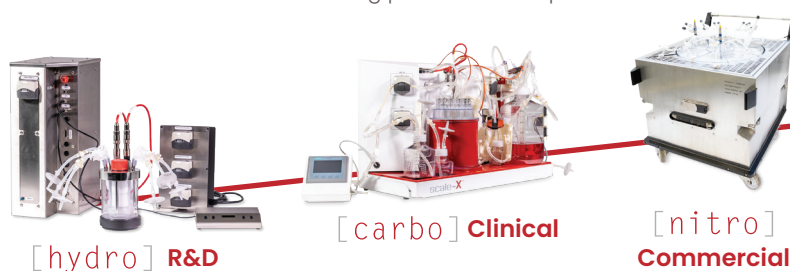
A dual layer structured fixed bed promotes an optimal environment for adherent and suspension-adapted cells.



Scalable by design

from R&D to commercial manufacture

Reproducible microenvironment across scales and batches accelerating process development.



scale-X™

Intensification
Flexibility
Robustness
Scalability

Applied to: AAV, Adenovirus, Lentivirus, VSV, HSV, siPV, exosomes, proteins