



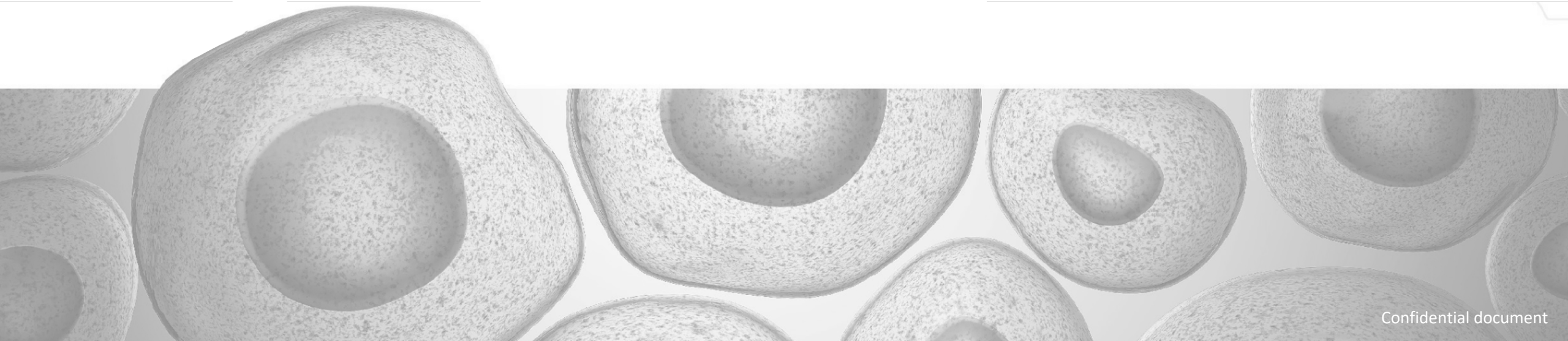
OmniBRx[®]
BIOTECHNOLOGIES

Unlocking vaccine manufacturing potential with novel bioprocessing technology

Dr. Tulip Nuwal

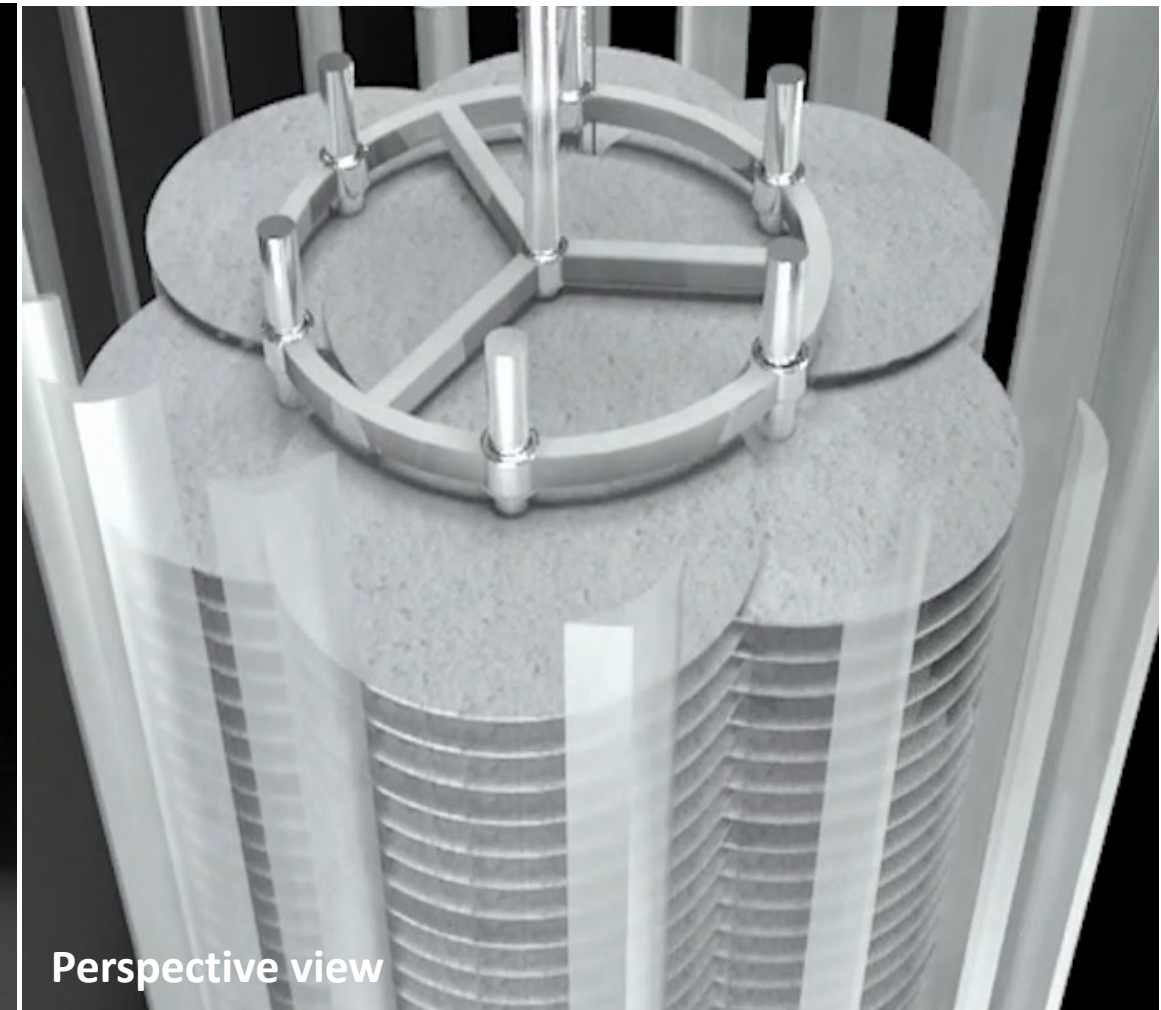
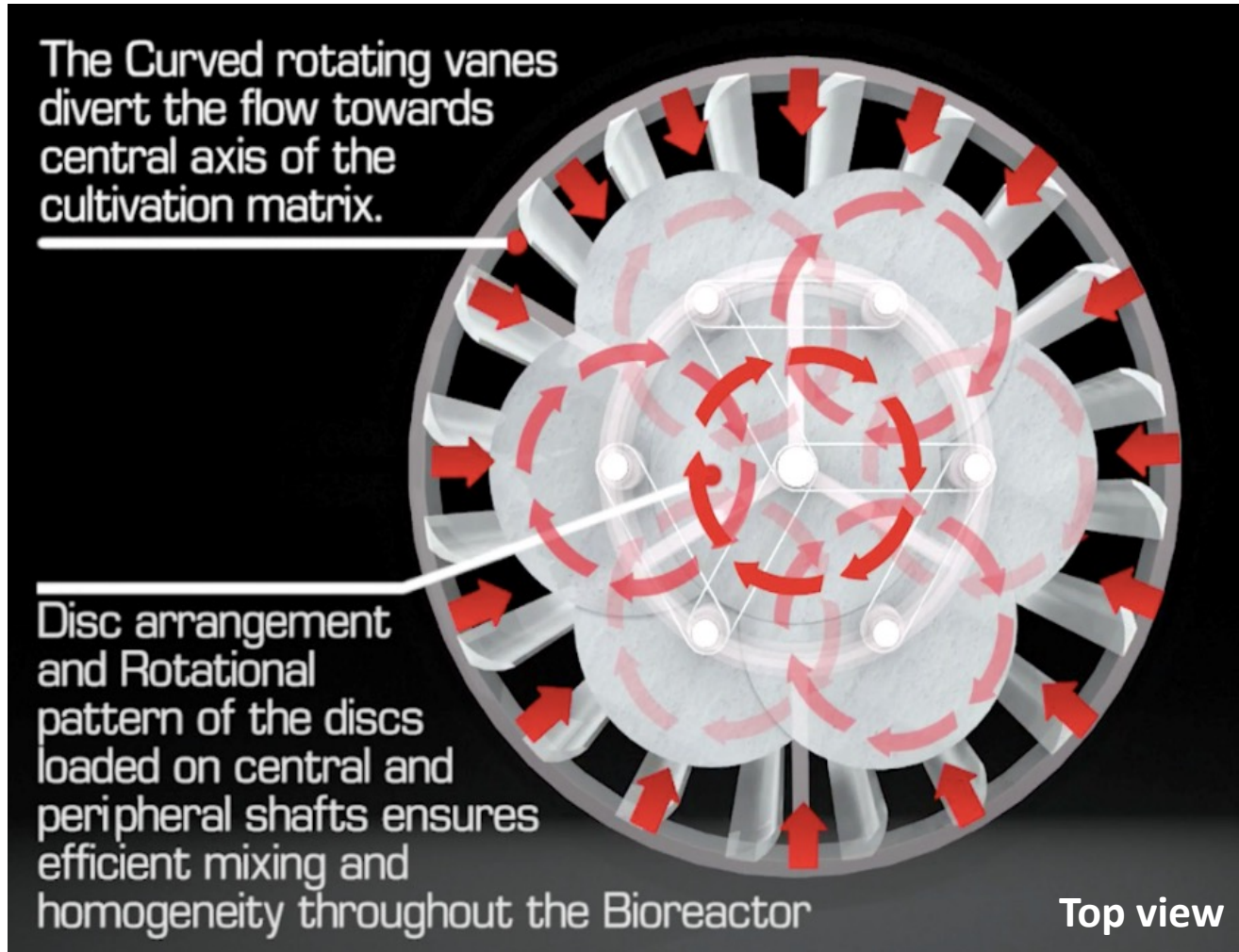
Who we are and what we do?

- India's first bioprocess engineering company engaged in development and manufacturing of "Single-use bioreactors" for adherent and suspension cell cultures.
- We also offer off-shore contract development services for various applications ranging from
 - Vaccine manufacturing - Viral Vector production,
 - Cell and Gene Therapies - Biotherapeutics.
- **Clientele:** >70 successful installations around the globe
- **Patented DYNAMIC-BED REACTOR technology**



Patented Dynamic Bed Reactor Technology

- DBR technology ensures sufficient mixing and homogeneity while accommodating large surface area for high density growth of adherent cells. It provides superior scalability, process efficiency and up to 90% upstream cost reduction at larger scale.



Available technologies v/s OmniBRx

Performance criteria	Roller Bottles	Cell factories	Packed bed	Microcarriers	CellBRx® SUBs (200L)
Scalability	No	No	No	No	Yes
Mixing	High	Low	Low	High	High
Facility footprint (in sq. ft)	2378	1259	65	258	18
Ease of handling	No	No	Yes	No	Yes
Equivalent no's of units to CellBRx	17647	2344	3	2	1

✓ Scalability

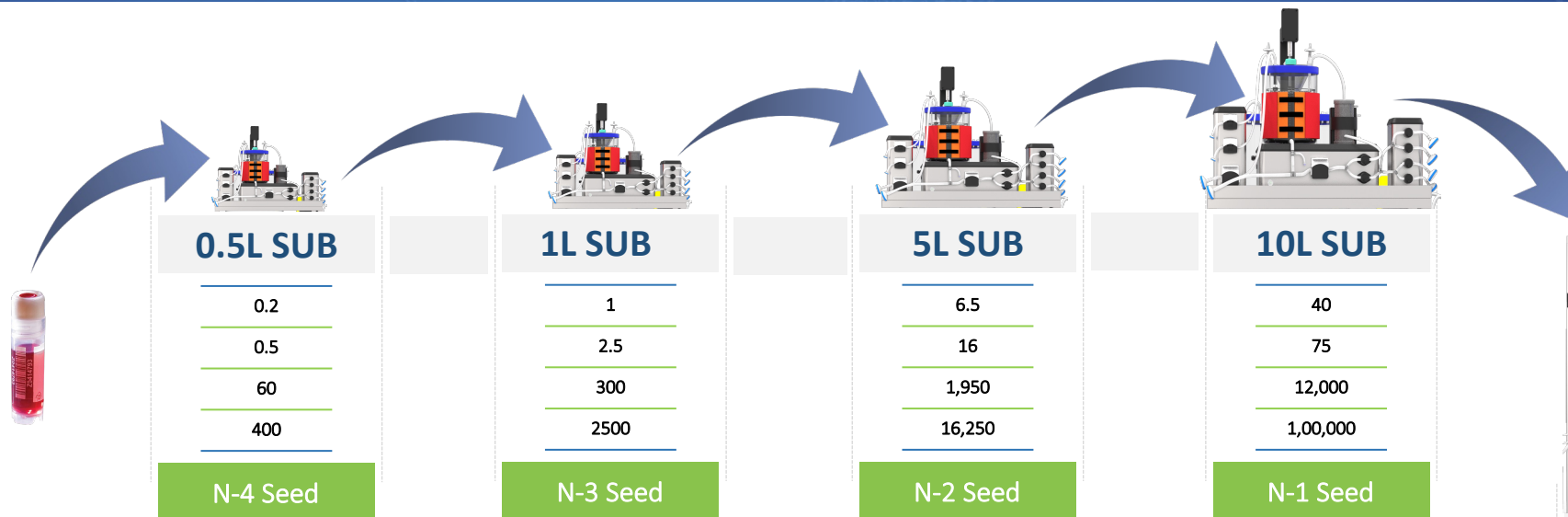
✓ Efficiency

✓ Affordability

Integrated Seed-train for 50L CellBRx:

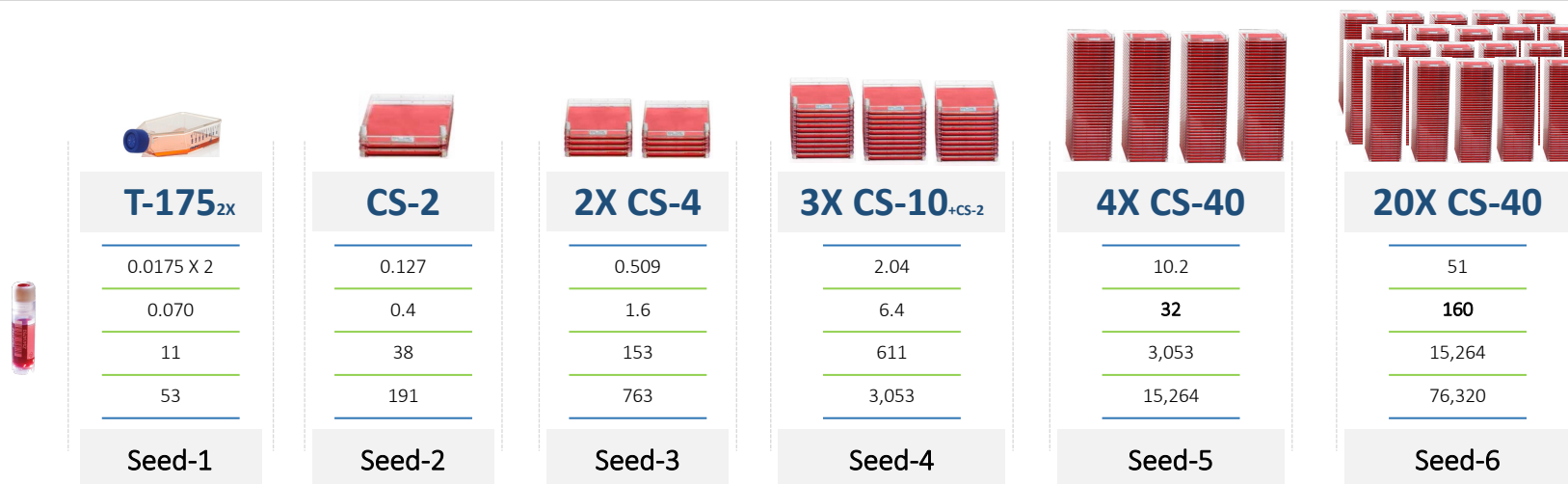
Integrated Seed train

Surface area (m ²)
Media Volume (L)
Cells Seeded (mvc)
Cells Grown (mvc)



Conventional Seed train

Surface area (m ²)
Media Volume (L)
Cells Seeded (mvc)
Cells Grown (mvc)



From R&D to Manufacturing scale: OmniBRx has you covered

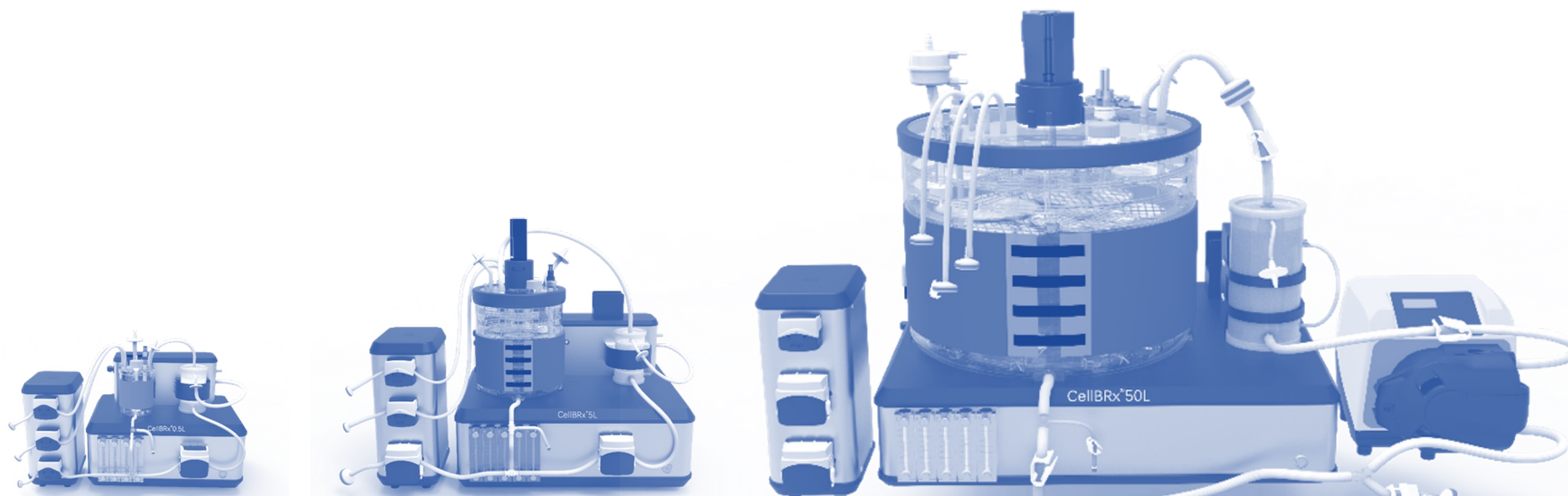
Regulatory Compliances:

For Controller unit:

- Fully Integrated process control system with integrated perfusion process module.
- 21CFR part 11 & GAMP-5 compliance for SCADA based process control system.

For Single-use Bioreactors:

- Biocompatibility,
 - USP class VI, <88> <87>
 - ISO 10993
- Extractables profiling
- TSE/BSE Free
- Sterilization certificate



	CellBRx 0.5 L	CellBRx 5 L	CellBRx 50 L	CellBRx 200 L
Surface area	1 m ² /2.5 m ²	10 m ² /25 m ²	100 m ² /250 m ²	1000 m ² /1500 m ²
Bioreactor Volume	0.5 L	5 L	50 L	200 L

Thank you

For further details please reach us at

Dr. Tulip Nuwal

tulip.nuwal@omnibrx.com

+91 7093320829

Website: www.omnibrx.com