



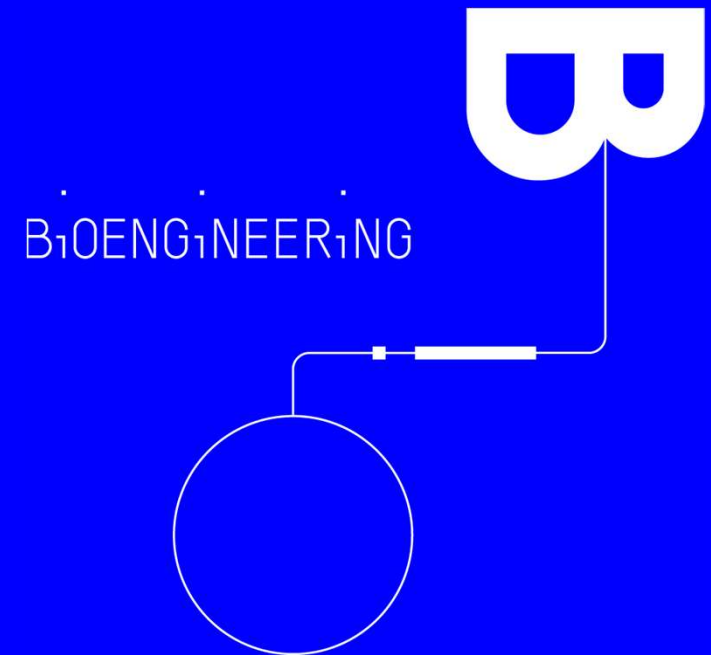
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OCTOBER 2022  
PUNE - INDIA

SOLUTIONS FOR  
LARGE VIRAL VACCINE  
PRODUCTION

Dr. Shaobin Mike Lu

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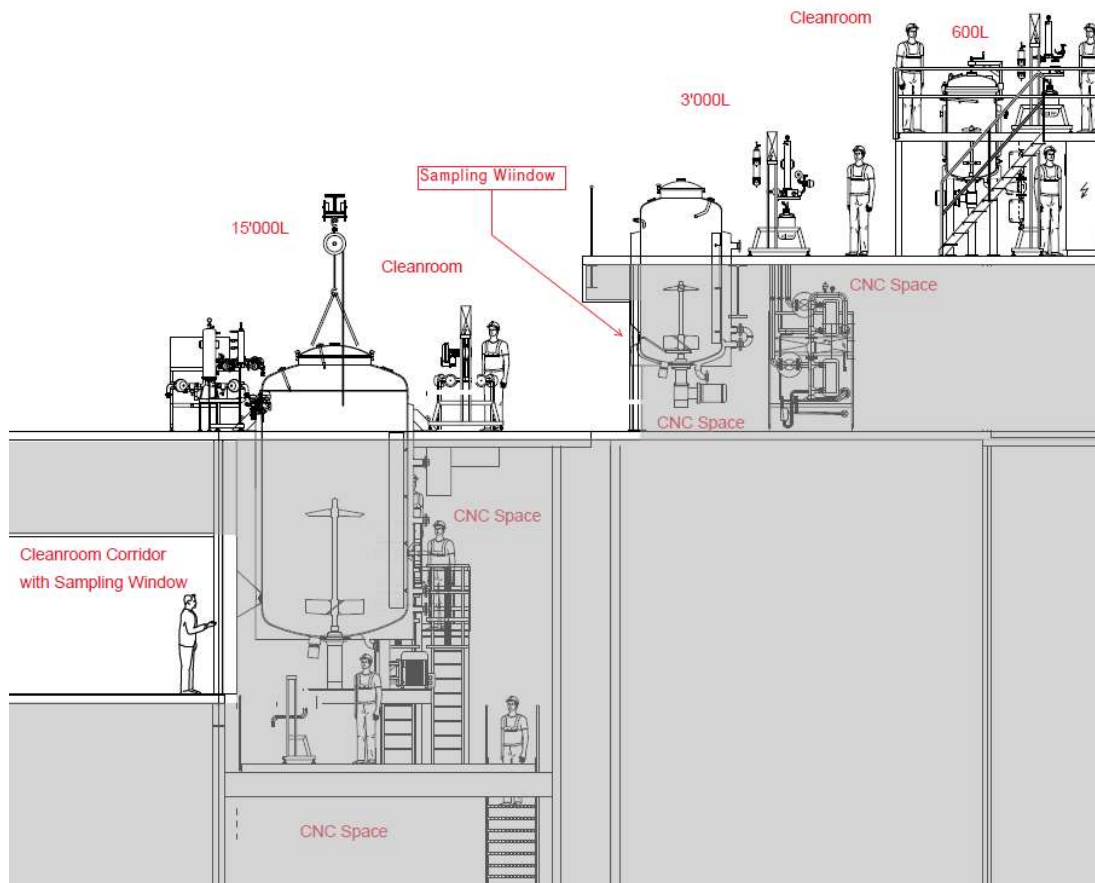
## YOUR PARTNER FROM RESEARCH TO COMMERCIAL PRODUCTION



## ASSEMBLING HALL IN JONA, SWITZERLAND

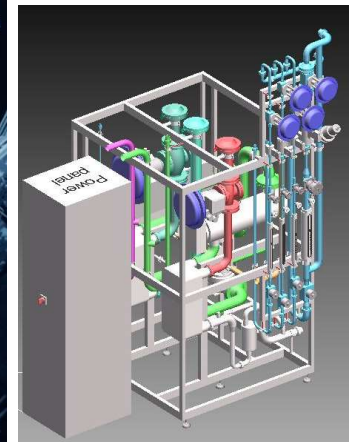
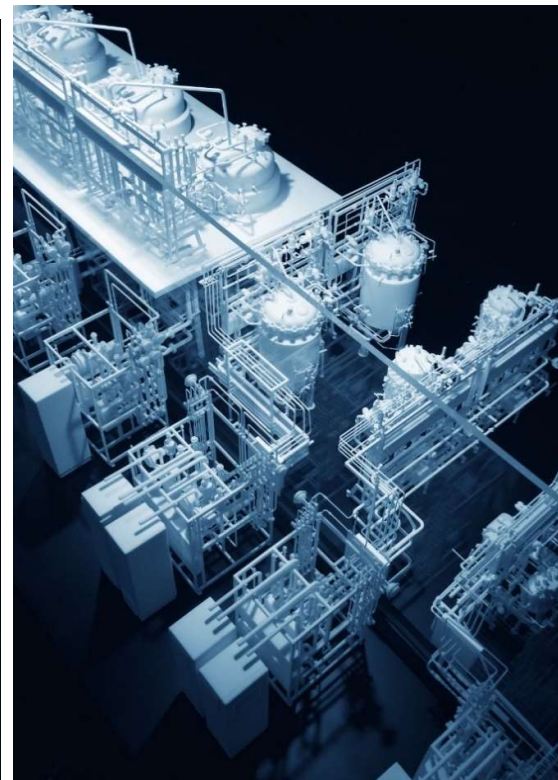
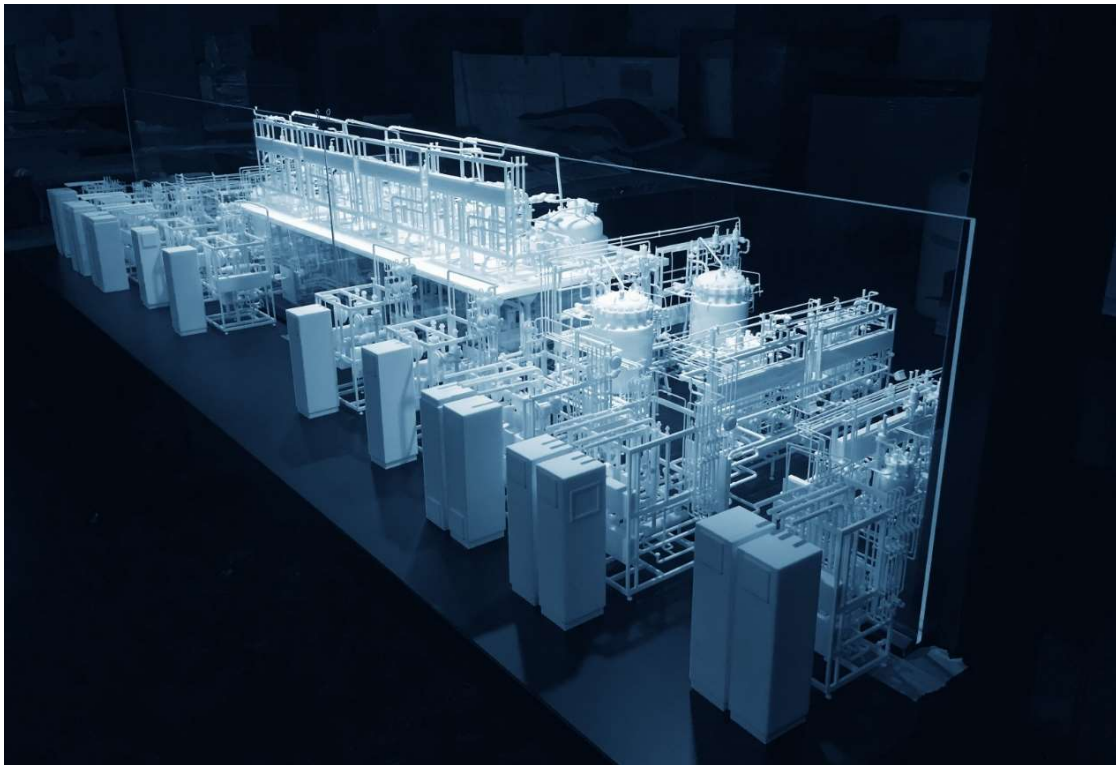


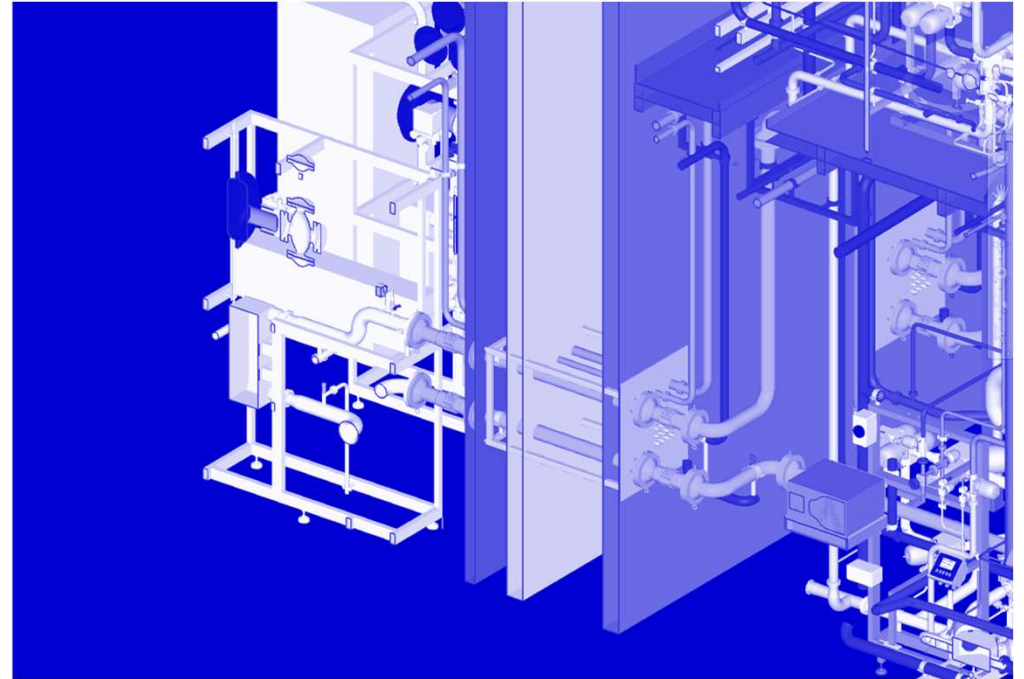
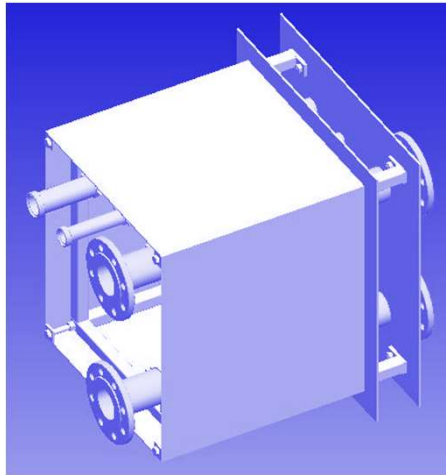
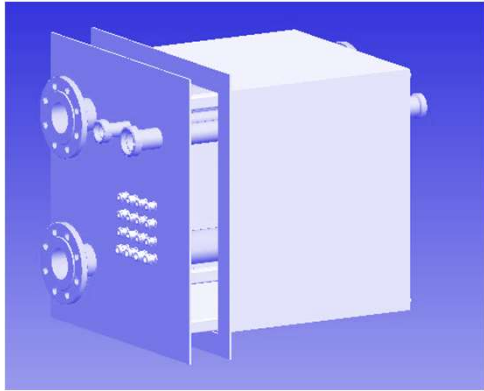




- CNC area (controlled, not classified)
- Reduced operational costs by reducing cleanroom areas
- Often described in literature and design philosophy, but fewer real-life example

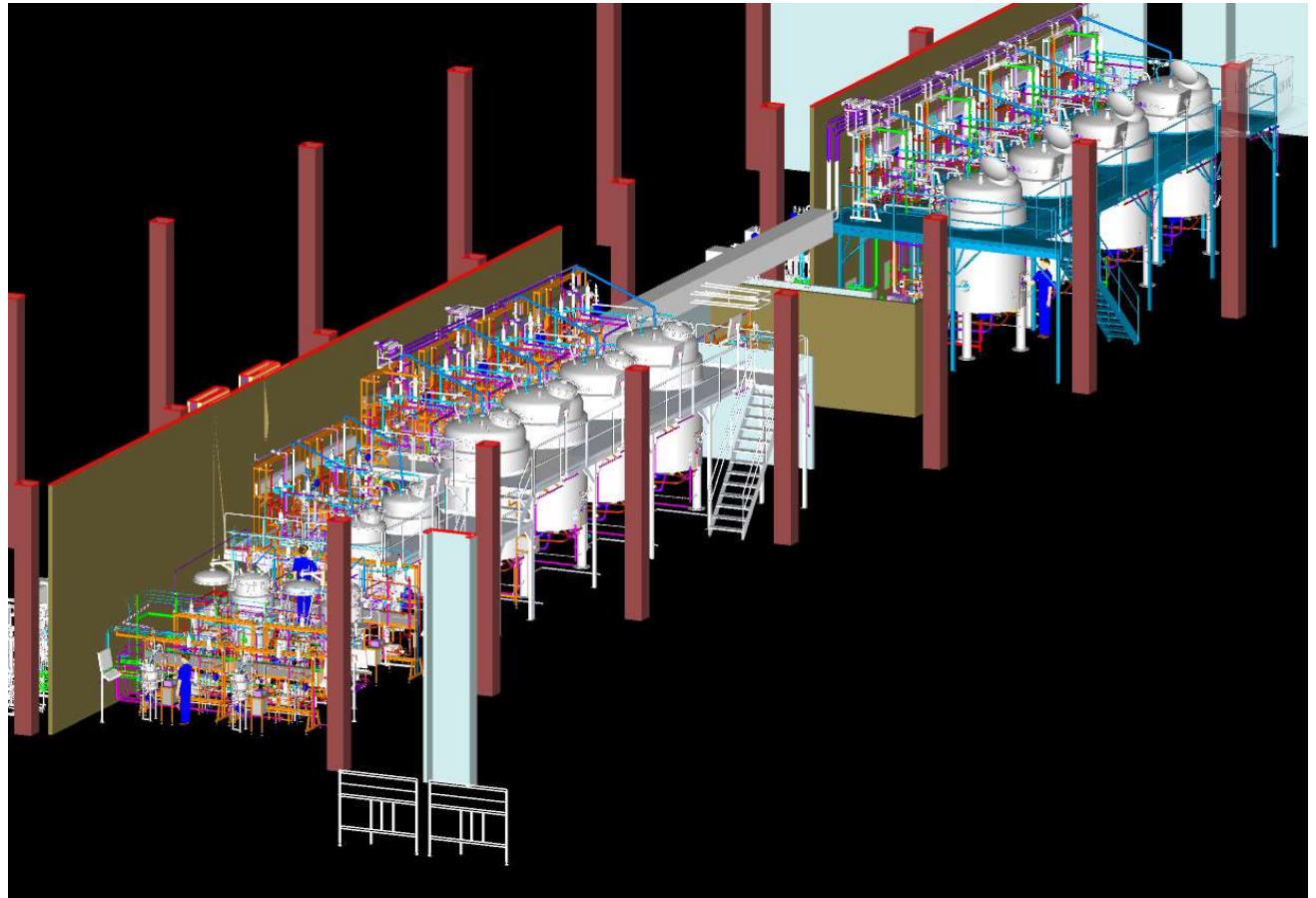


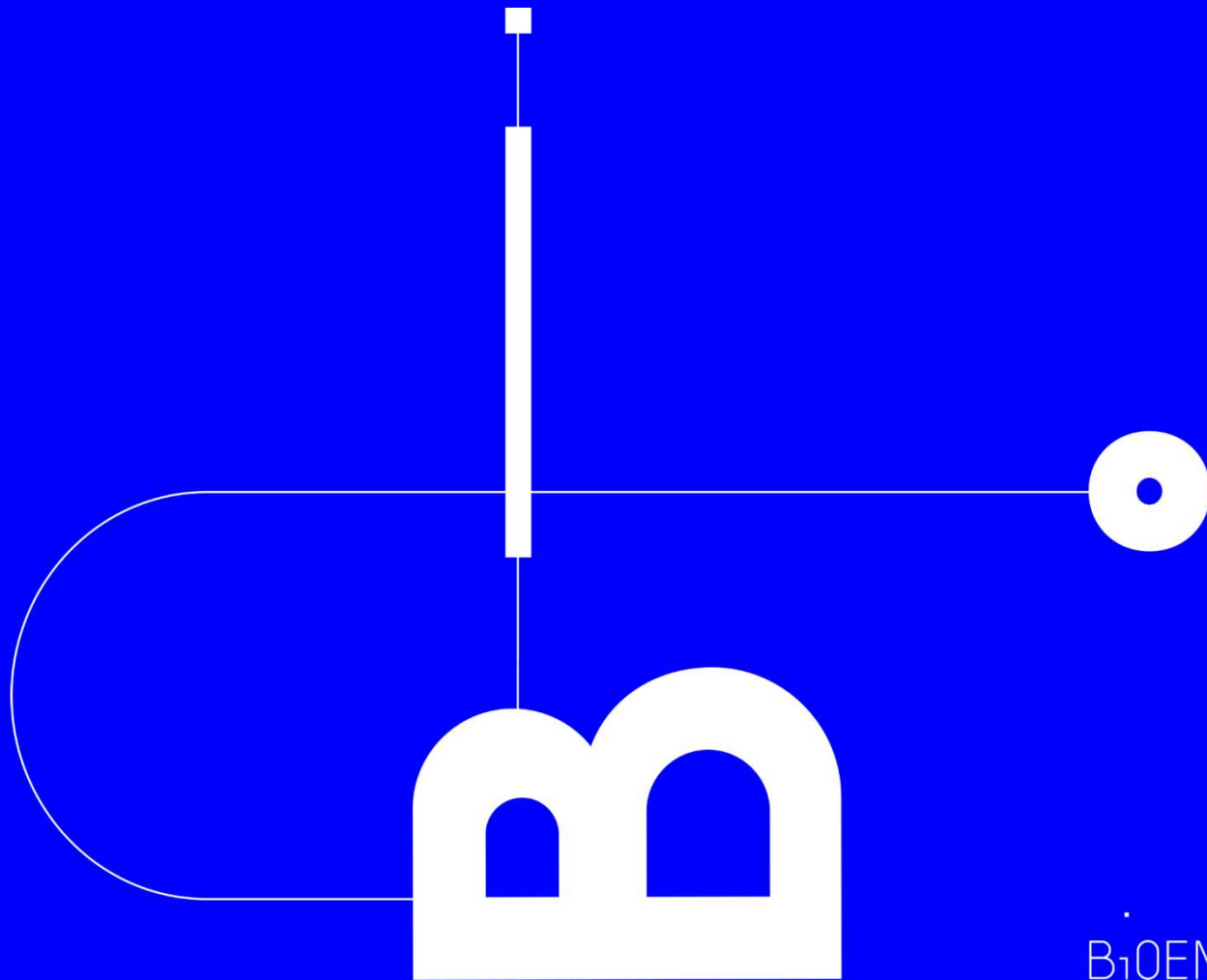






- Reducing operational costs
- Early involvement of equipment/system vendors in design phase
- Process engineering know-how
- Further considerations to cost reduction: integrated CIP circulation pump, etc.





THANK YOU

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