



A new shaped rocking bioreactor for insect and mammalian cells

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Services at the Biochemistry Core Facility

Cloning

pCoofy expression vector series

Expression screening

E. coli - *P. pastoris* - Baculovirus - HEK293E

Production in bioreactors up to 10L

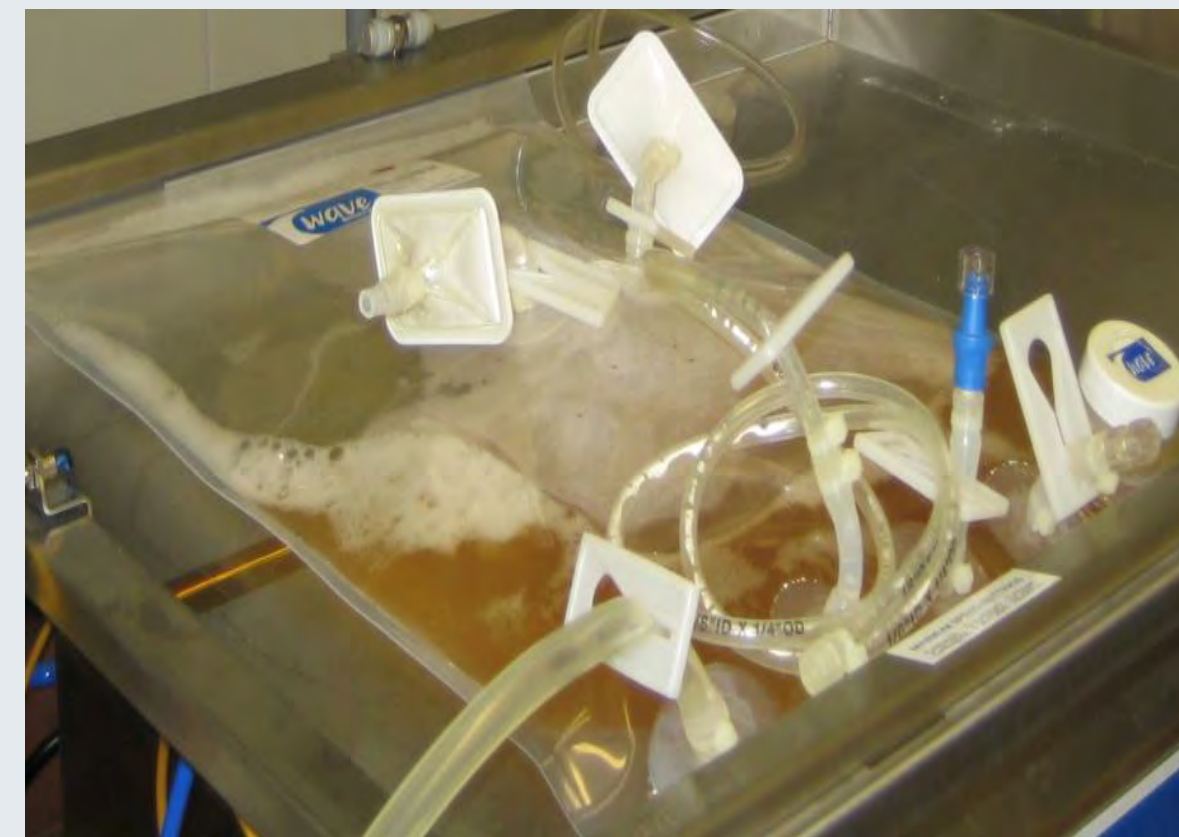
bacteria - yeast - insect and mammalian

Protein purification

Protein quality

Mass spec, ANSEC, DLS, SEC-MALS, CD

Insect and mammalian cell production at the Facility

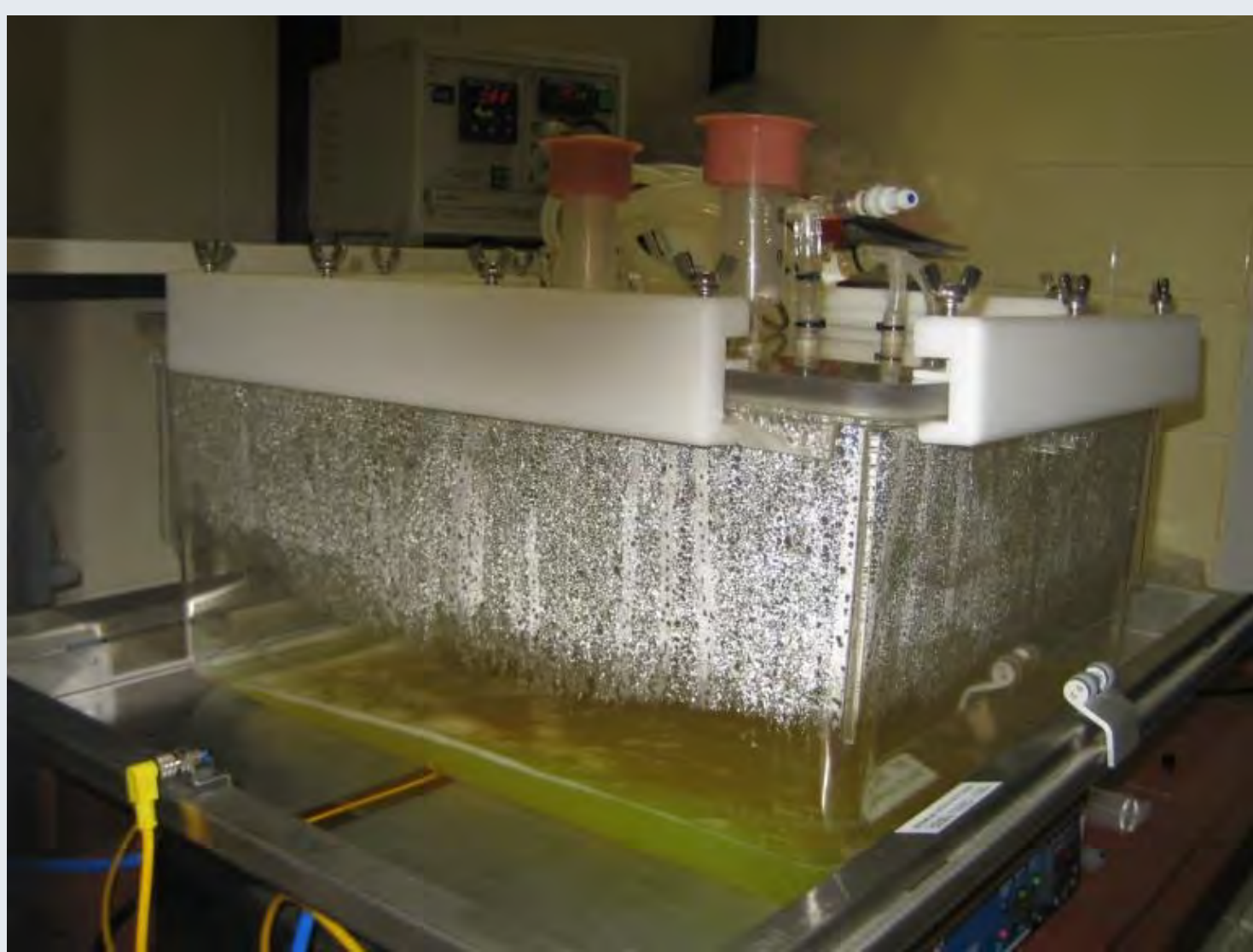


The Facility's need for a new bioreactor

- **Stirred tank:** time consuming setup, contamination risk,
- **Wave bag:** expensive, shape coupled to air transfer, high contamination risk, wet filters, process optimization needed

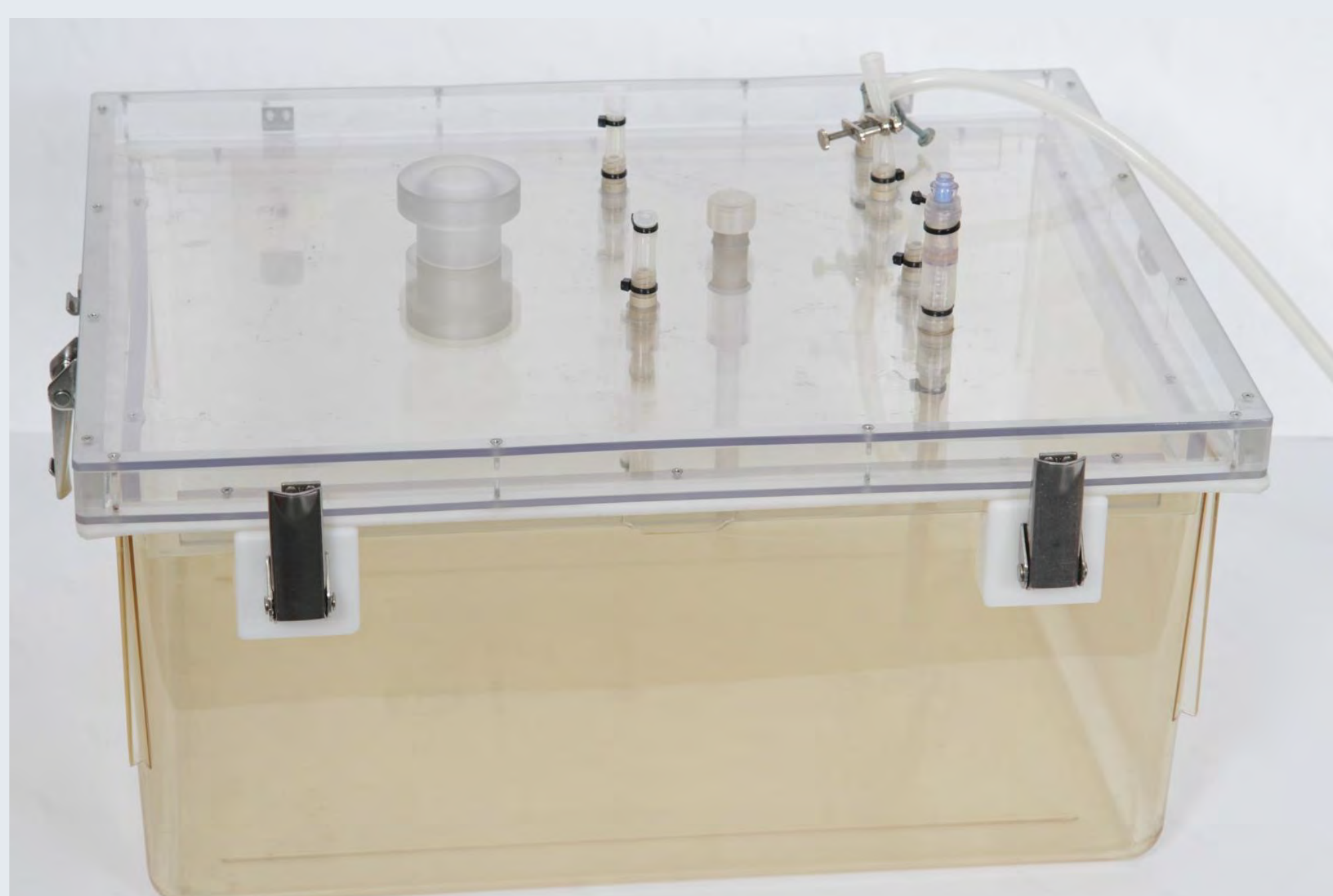
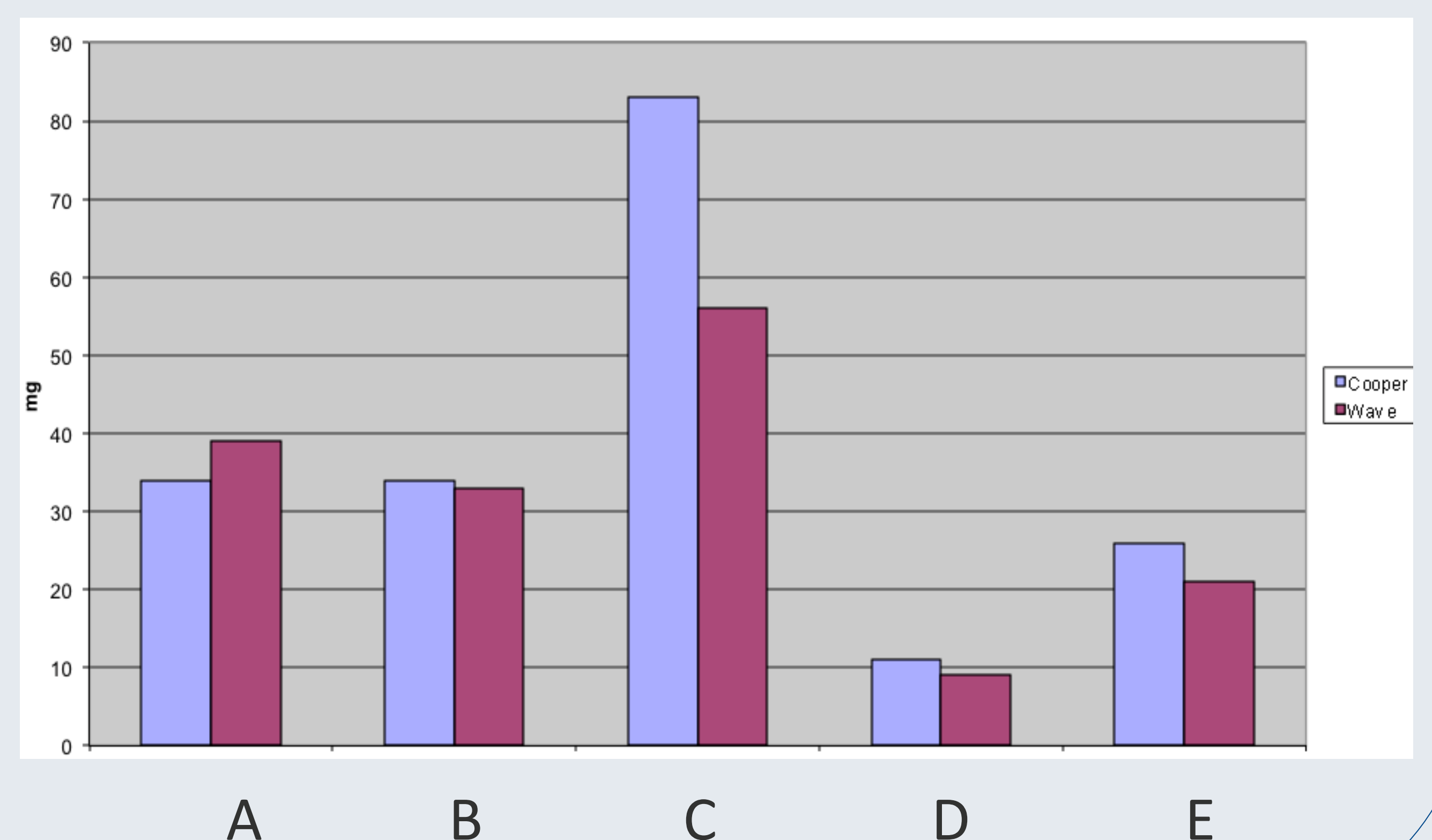
Prototype of Cooper

- effective temperature regulation on wave shaker
- easy filling up to 10L
- no contamination
- optimal productivity



Productivity of Cooper versus Wave in insect cells

5 L production in wave and cooper
IMAC purification of target proteins



Final Design of Cooper

- Fixed shape
- Reusable and cost-effective
- Convenient handling (filling, transport)
- Compatible with different rocking units, sensors and filters