

# Massachusetts Biomanufacturing Center

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Director

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UMass Lowell

**Biopharmaceutical Process and Quality Consortium 2014**

University of Massachusetts Lowell

Lowell, MA

# **Mission: Bridging Biotech Research to Product Manufacturing**

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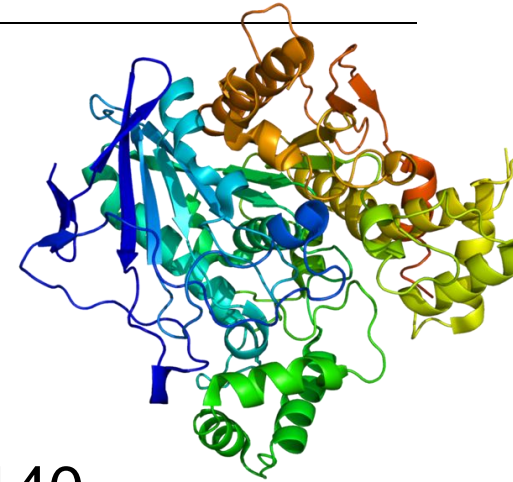


1. **Process development**
2. **Applied research**
3. **Pilot Plant Facility**
4. **Education and Training**
5. **Analytical services**

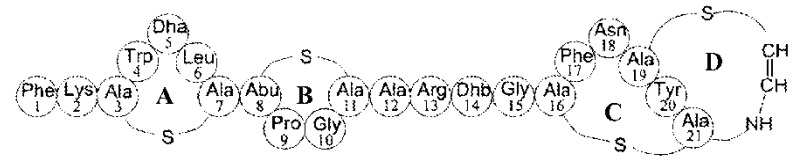
# Current Process Development

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Develop purification for butyrylcholinesterase  
US Military



Develop fermentation and purification for MU1140  
Oragenics, Inc.



Develop cell culture and purification for mAb-like molecule  
Wyss Institute, Harvard University

# Applied Research

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- **Matrix** chromatographic membranes were able to purify mAb from clarified cell culture media to impurity levels comparable to Protein A
- Impurity Removal (after step)

Step	HCP ng/mg	Aggregate %
C	12,000	10
Q	2,100	3.7
HIC	1	Not detected

- Recovery
  - Greater than 95 % for each step