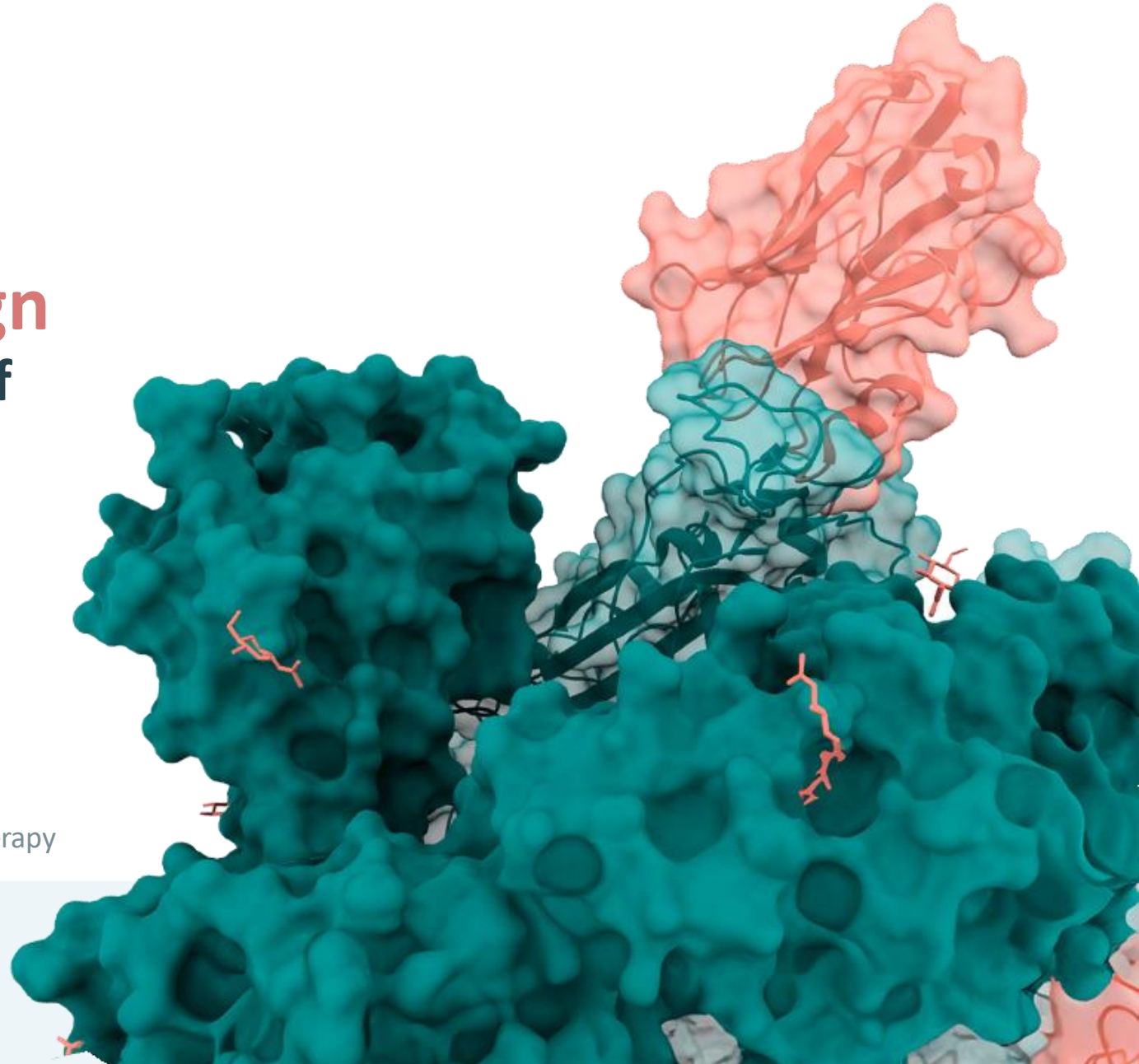
PUXANO

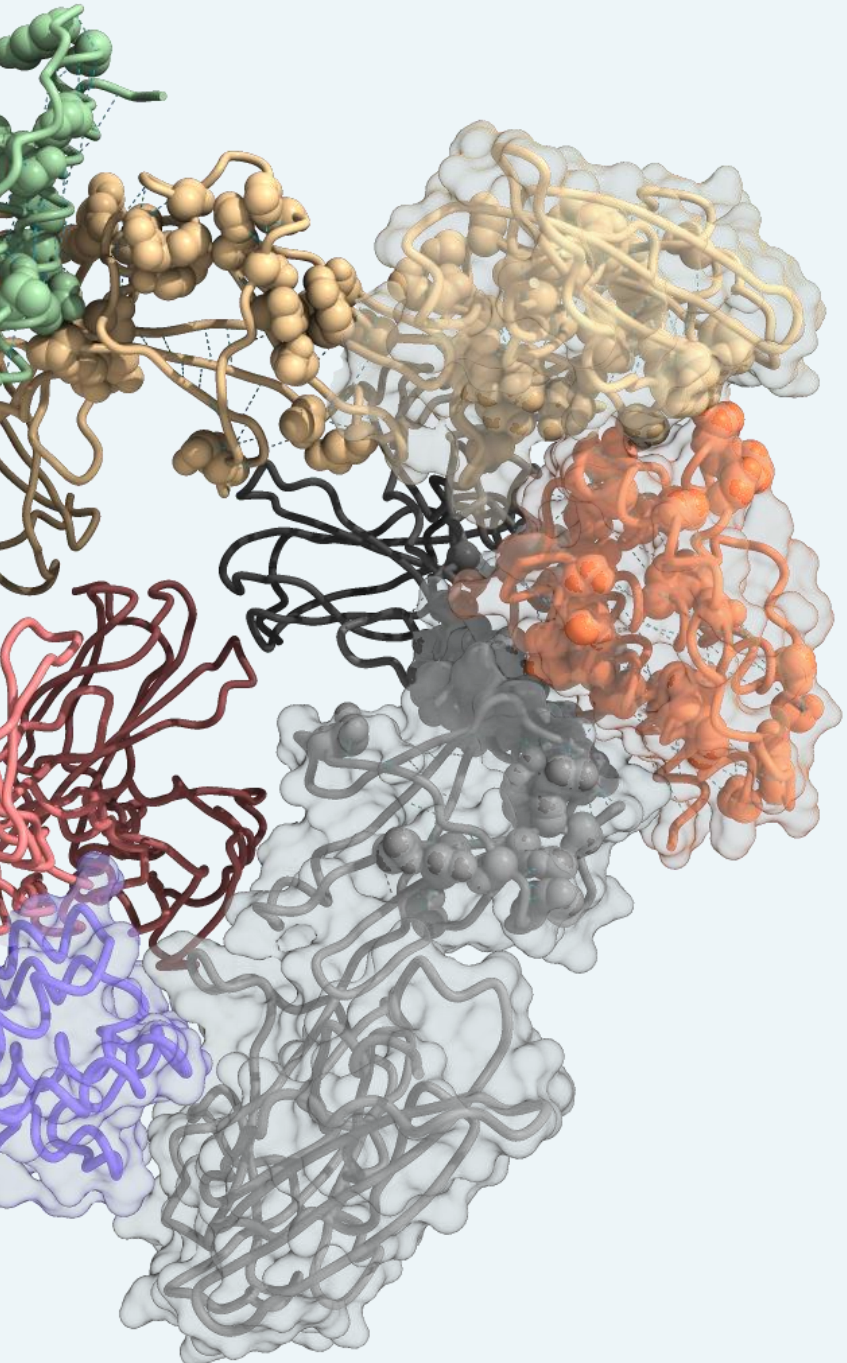
Innovative Antigen Design

Generating soluble analogues of membrane protein antigens



By Moisés Maestro López (Lead Protein Services)

Pitch & Match Session: Next Generation Vaccines & Immunotherapy



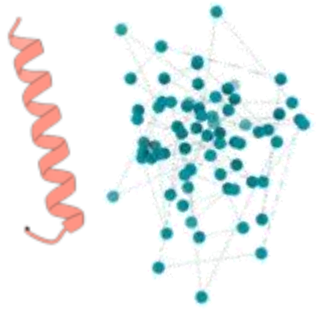
PUXANO Focus

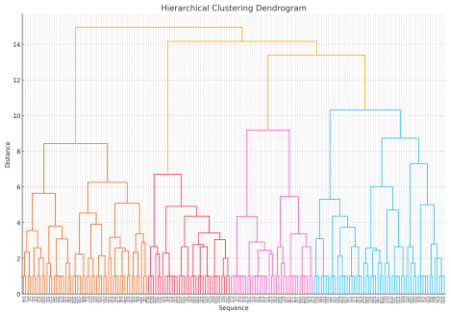
PUXANO functions as a **platform-based contract research organization** (CRO).

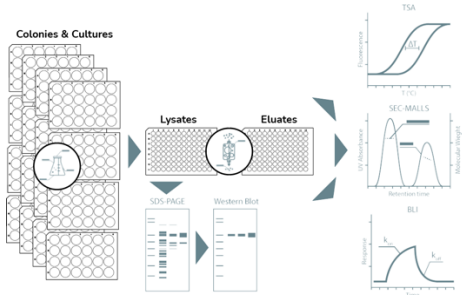
Key **focus**:

- Protein engineering and design
- Protein production and biophysical analysis
- Protein structure determination and nano particle analysis using cryoEM

PLATFORM FOR TAILOR-MADE ANTIGEN DESIGN







DATA AGGREGATION → FORMULATE DESIGN STRATEGIES → IN SILICO SELECTION → EXPERIMENTAL VALIDATION → STRUCTURAL VALIDATION

- Epitopes
- Structure
- Conservation
- Patents

- Combining epitopes
- Improving stability
- Designing scaffolds

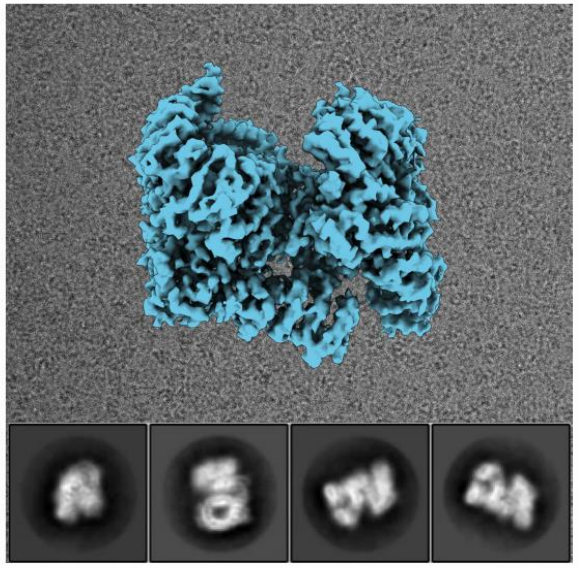
- Immunogenicity
- Stability
- Biophysical

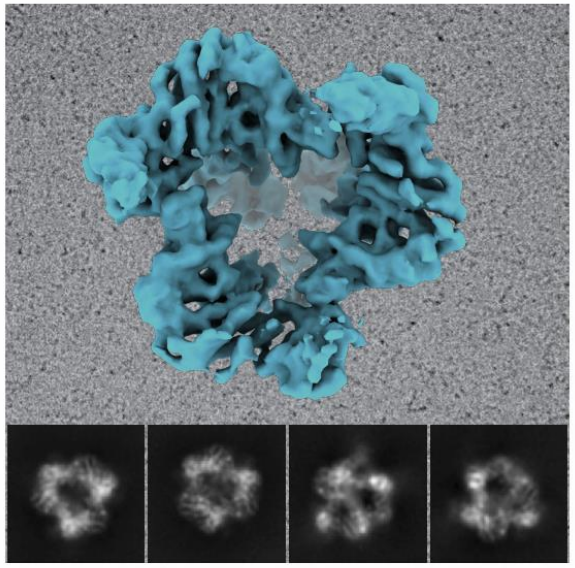
- Expression
- Thermo-stability
- Interaction assays
- Immune response

- Proteins
- VLPs
- LNPs

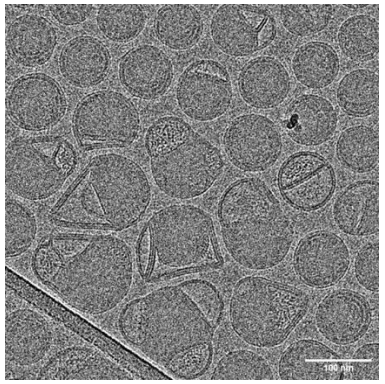
Structural Validation-CryoEM

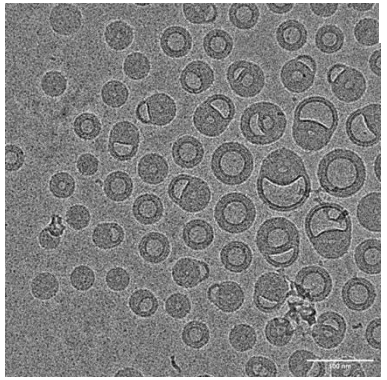
Proteins

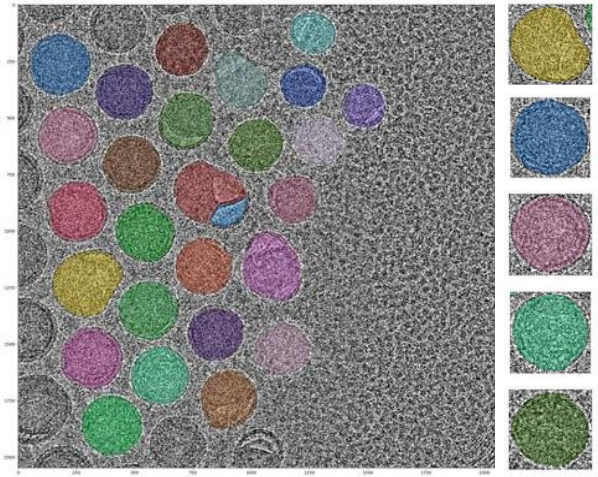


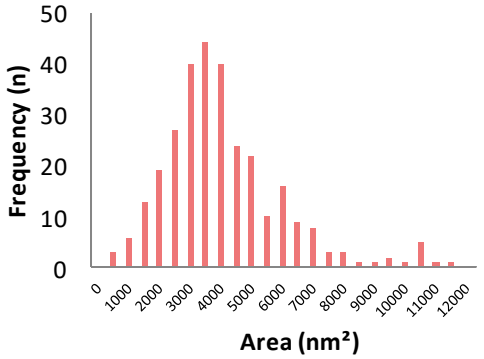


LNPs









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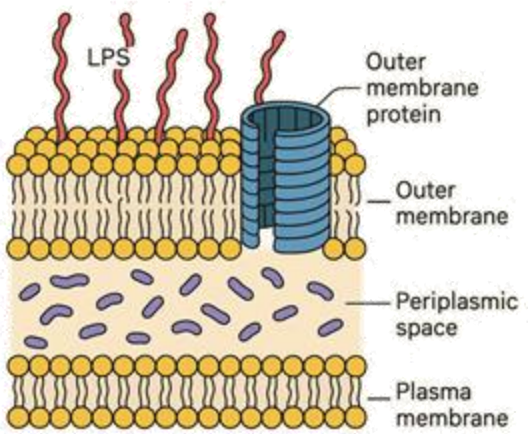
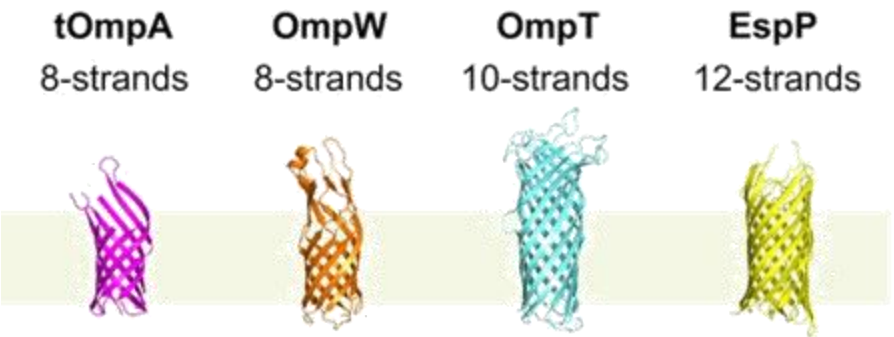
Case Study:

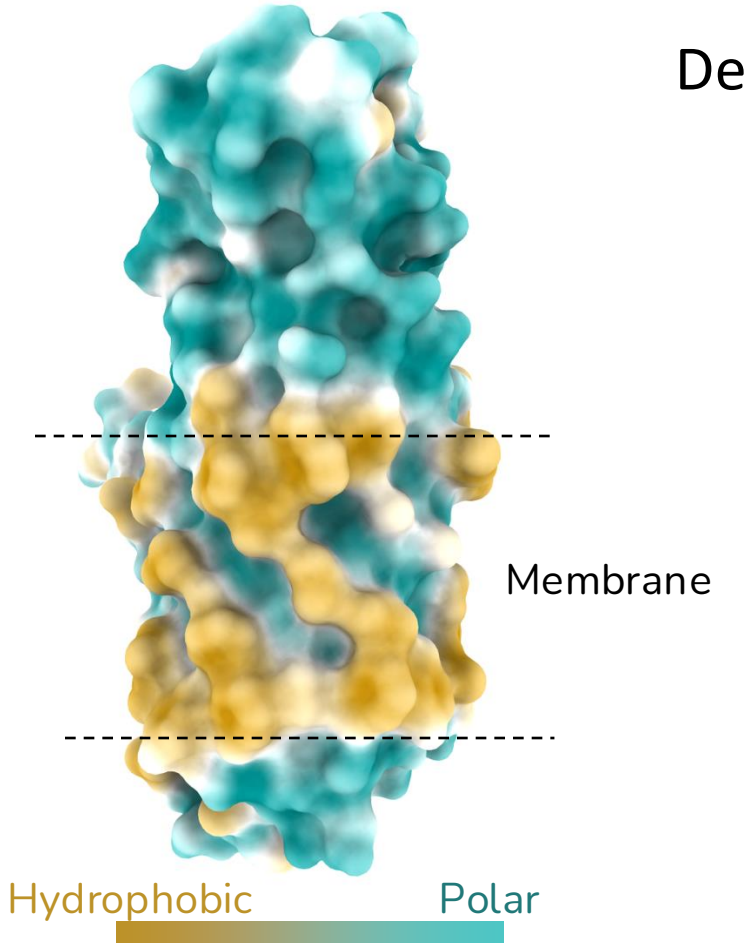
Solubilizing beta-barrel proteins via AI-driven protein design

Solubilizing beta-barrel proteins via AI-driven protein design





Schiffrin, B., et al. *BMC Biol* **15**, 123 (2017)



Design soluble β-Barrel

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Expression tests

↓

IMAC

↓

SEC

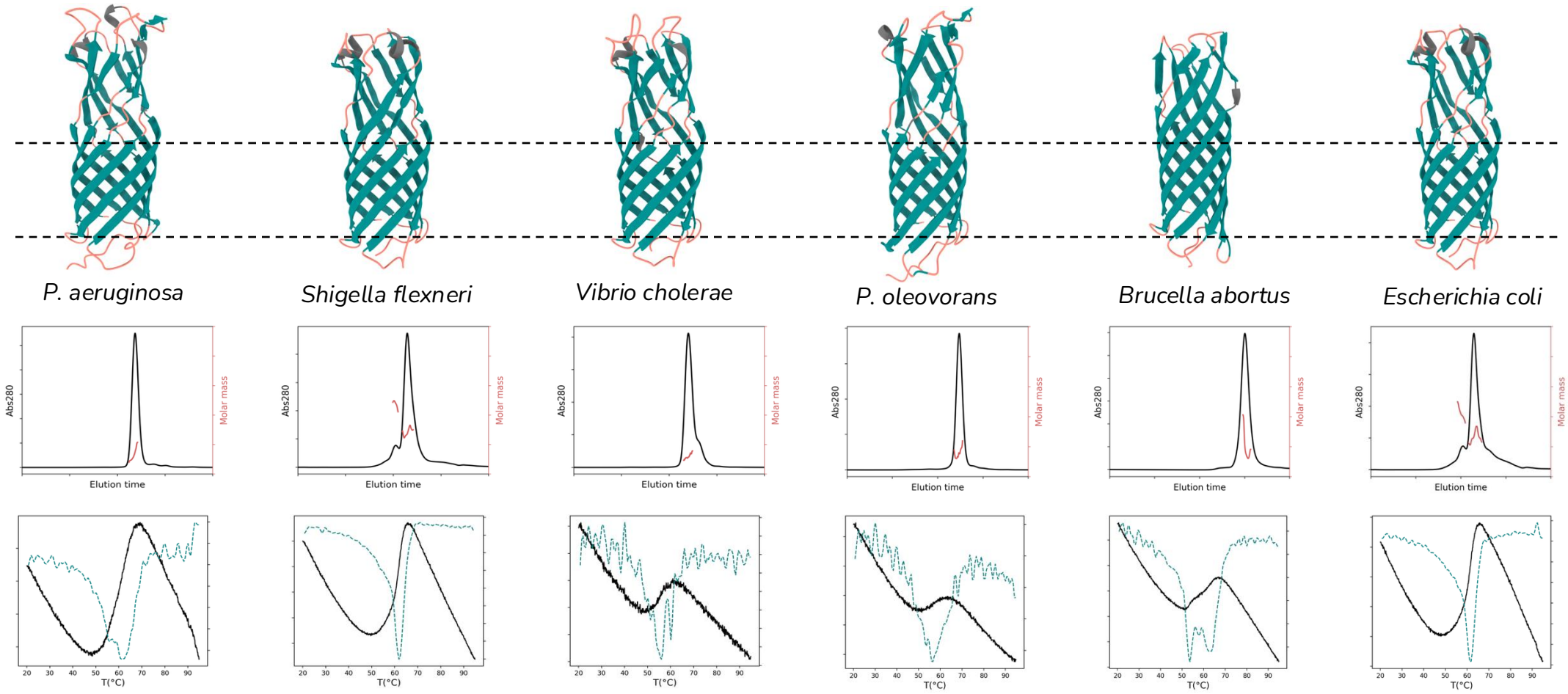
↓

SEC-MALLS

↓

TSA

Solubilizing beta-barrel proteins via AI-driven protein design



THE PUXANO PROTEIN DESIGN APPROACH

> ***Tailored protein design solutions for customer specific needs with in-depth experimental validation***

PUXANO

Innovative Antigen Design

Generating soluble analogues of membrane protein antigens

Thanks for listening

You can contact us at
info@puxano.com