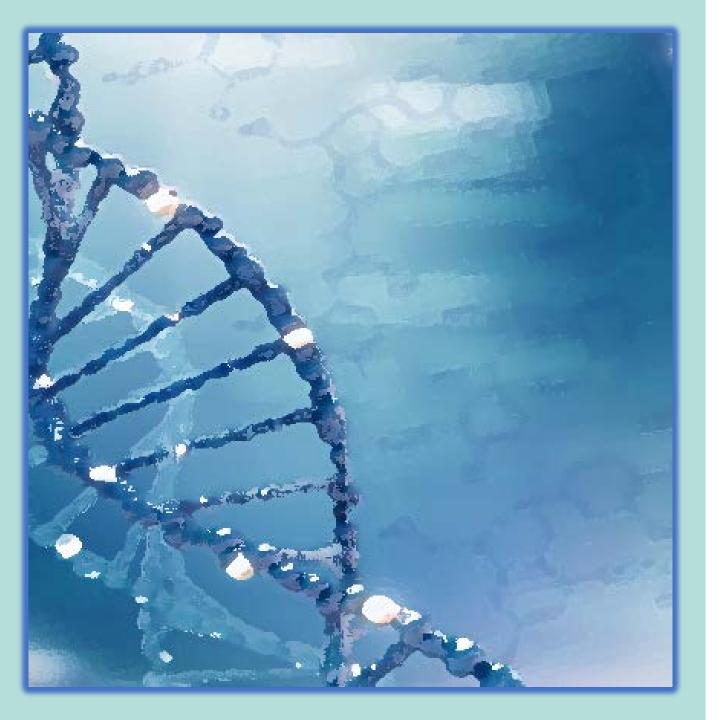
BioPresentation 2021



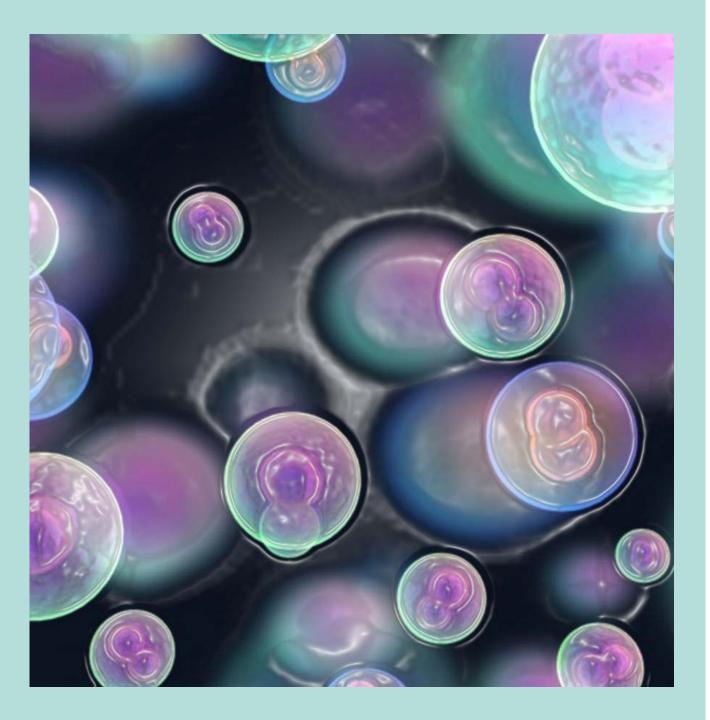






Our Bio-proposal



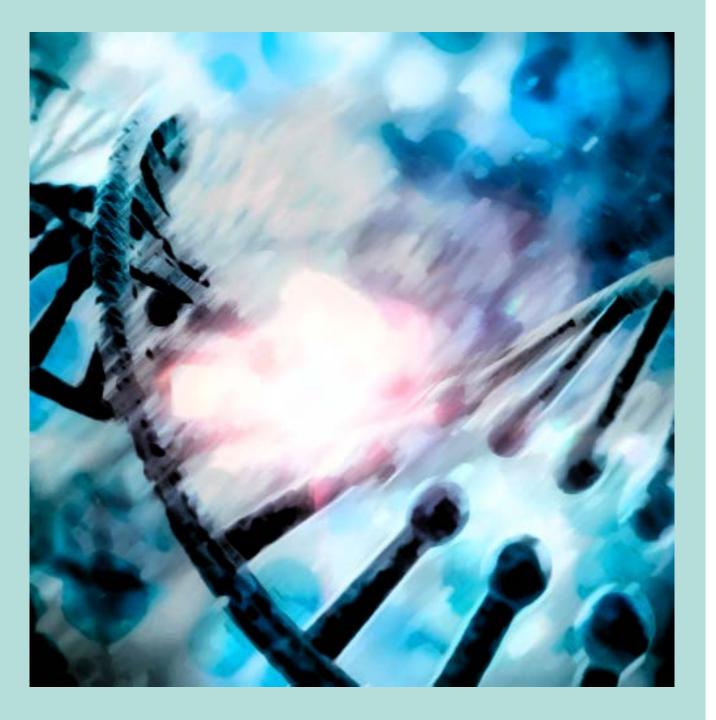




Pool of selected suppliers

- Fast responsiveness
- Reliability
- Various subfields covered





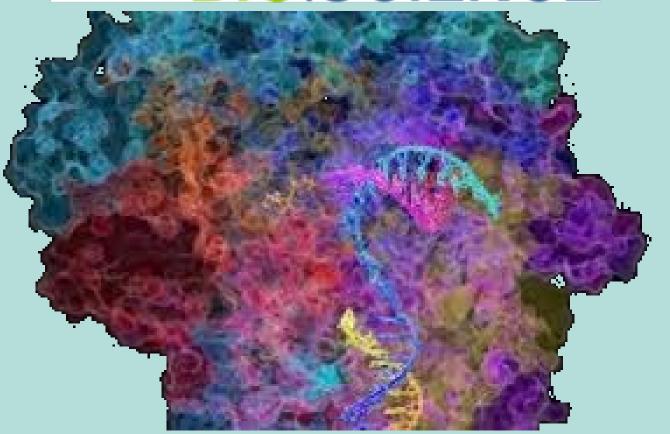
What we can offer



- Cell culture media
- Antibodies & Proteins
- Enzymes
- Cell line development services
- ManNac







Eucodis Bioscience





 Enzyme screening, engineering and manufacturing up to industrial scale.

ISO 9001:2015, GMP (if needed)

- Over 50 enzymes in portfolio
- Development and optimization of full customized enzymes
- Capabilities:
 - 1 to 10 liters (R&D)
 - 50, 200 and 100 liters (production scale)
- Enzymatic protein drug conjugation (CTATTM)
- Protein engineering technologies



EUCODIS BIOSCIENCE

This novel, patented linker technology is designed to covalently attach a payload molecule to a recombinant antibody, antibody fragment or protein through a site-specific enzymatic reaction.

The payload molecule can be a therapeutic drug molecule, a dye for diagnostics or e.g. a PEG molecule to increase the stability and half-life of a therapeutic protein.



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EUCODIS BIOSCIENCE

EUCODIS Bioscience applies state-of-the-art protein engineering technologies to improve parameters like activity, stability or substrate selectivity of the target enzymes. Besides more common technologies like random mutagenesis, site-directed mutagenesis or site saturation mutagenesis for directed evolution of enzymes, EUCODIS Bioscience has additionally developed proprietary gene shuffling and in vivo recombination technologies to increase biodiversity and obtain high performance biocatalysts.



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Diatheva



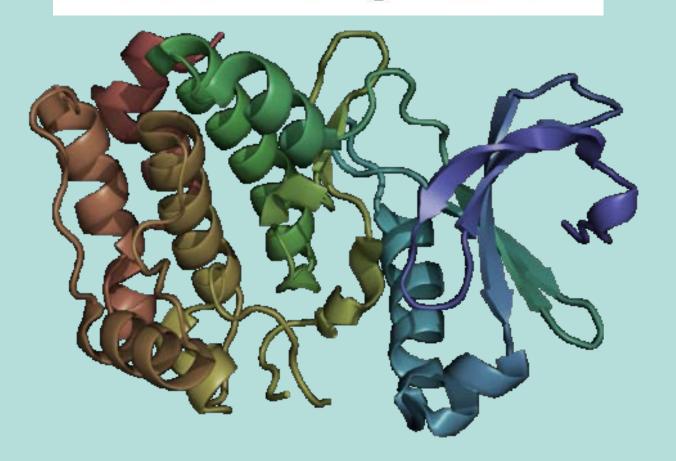


- Cell line development / Cell Banking
- 10, 20 and 200 liters E.Coli fermenters
- Blood, tissues and cells cryoconservation
- Process and Analytical Method Development
- Scale up and GMP manufacturing of antibodies and protein





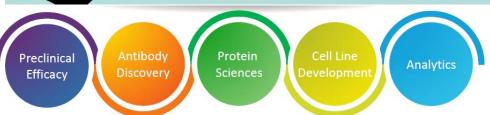
ARAGEN



AragenBio ==







Early analytics ensures successful Research and **Development**: Aragen's analytical capabilities span biophysical characterization to full Developability assessment and formulation studies

Fast-tracks the concept: Industry-leading hybridoma techniques for accelerated immunizations highly-efficient electrofusions.

Protein production creates Research and Development efficiency: Design, create, transfect and purify reagents, antigens and therapeutics

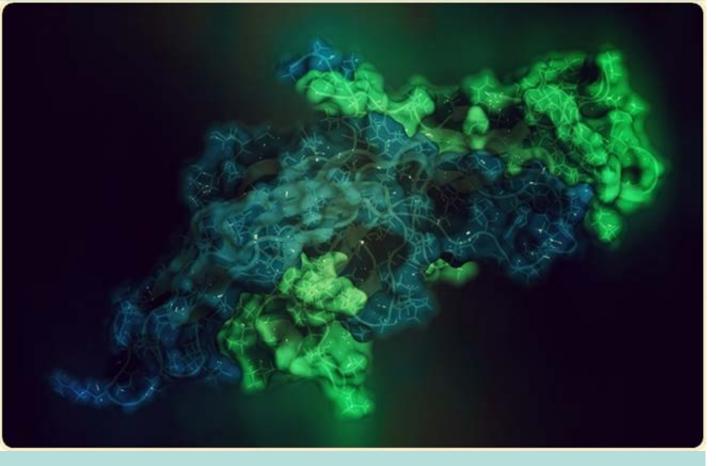
provides unparalleled CLD, delivering Aragen commercial-quality cell lines

Preclinical efficacy testing industry-leading in vivo models



SANYO FINE CO., LTD.

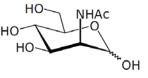




Sanyo Fine Co.







N-Acetylmannosamine (ManNAc)

Precursor of Neu5Ac Additive of culture medium

- Improvement of sialylation rate on sugar chain of glycoprotein
- Reduction of Neu5Gc residue in sugar chain of glycoprotein

Sugar chain is one of the causes of side effects of biopharmaceuticals

ManNAc, modifying the sugar chain, may reduce side effects



Thank you for your attention



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www.summitpharmaeurope.com

