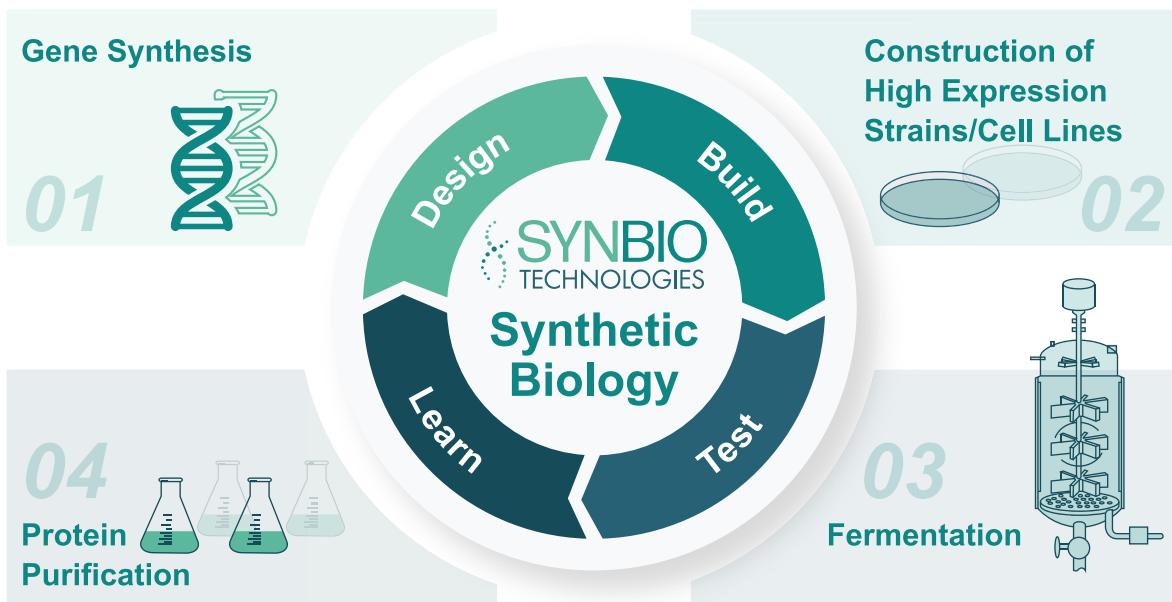


Collagen Synthetic Biology Solutions

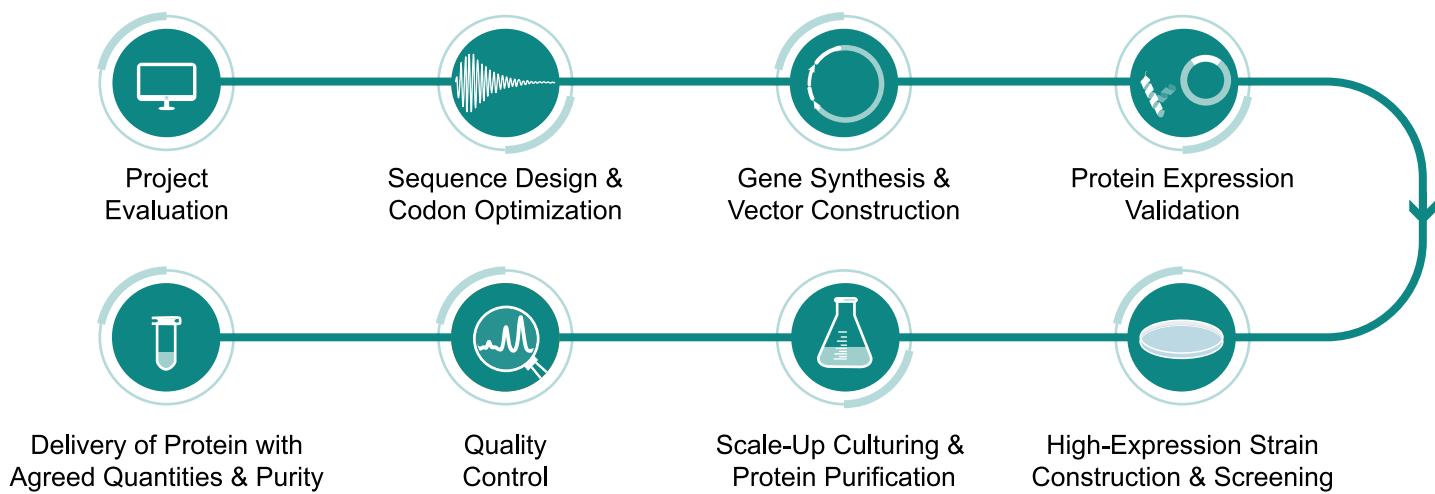
AAI (ACTIVE AESTHETIC INGREDIENTS)



The bioactivity and safety of recombinant collagen enhance its applications in research and medicine as well as in the pharmaceutical, food and cosmetic industries. To meet the demand for human-like collagen, Synbio Technologies has developed the AAI recombinant collagen, an active ingredient for aesthetic medicine, using synthetic biology-enabled platforms.

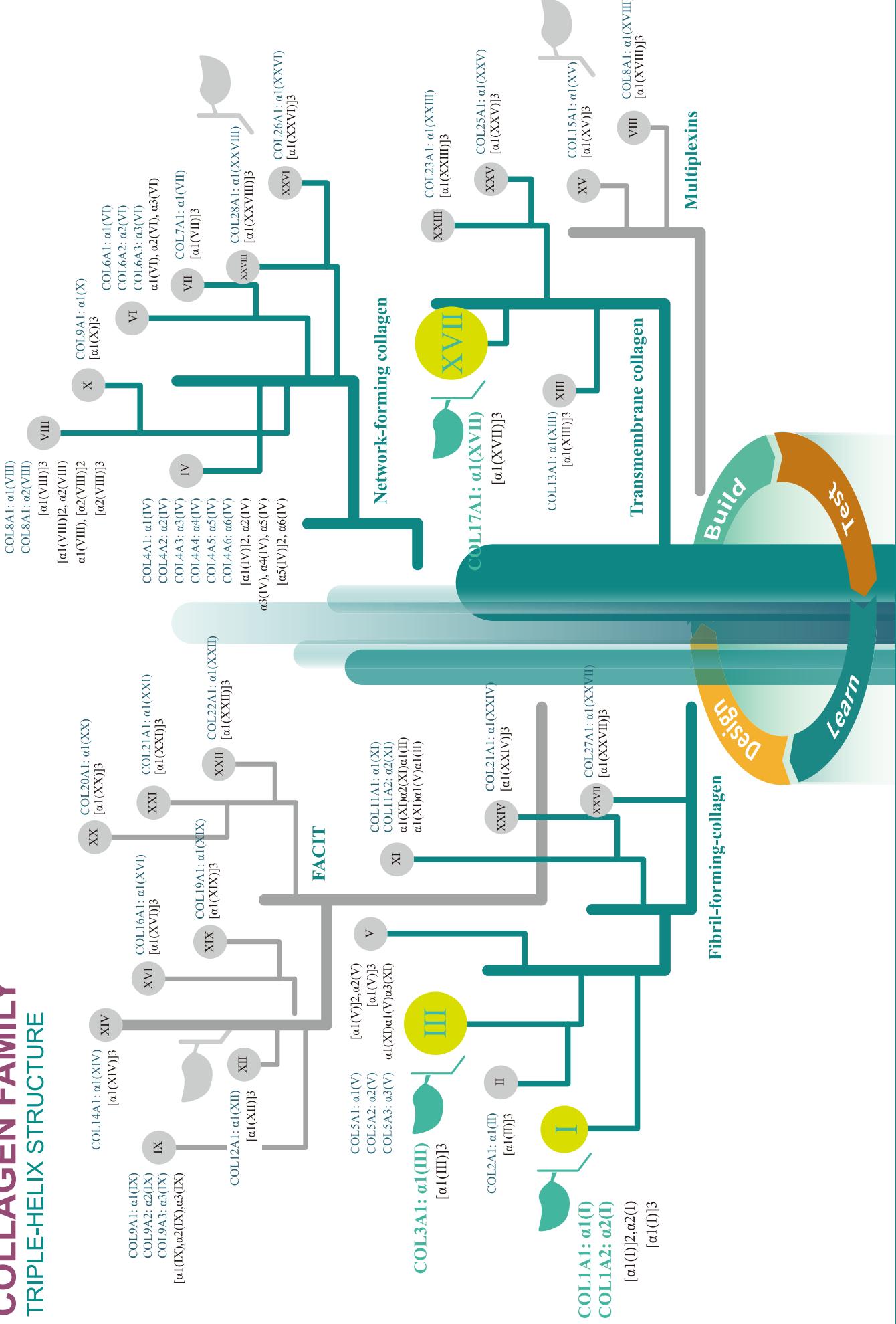


Through the selection and design of high-activity collagen genes, advanced gene synthesis technology, optimization and validation across multiple expression systems, we guarantee the expression, bioactivity and processability of recombinant collagen, creating more possibilities for downstream applications!



COLLAGEN FAMILY

TRIPLE-HELIX STRUCTURE



The collagen family consists of 28 members. Each collagen molecule consists of three collagen α -chains folded into a triple-helix structure. Each collagen α -chain is made up of Gly-X-Y motif repeats, where any amino acid residue can occupy the X and Y positions in the Gly-X-Y units. The formation of the collagen triple helix begins with newly synthesized collagen α -chains encoded by specific genes.

CASE STUDIES

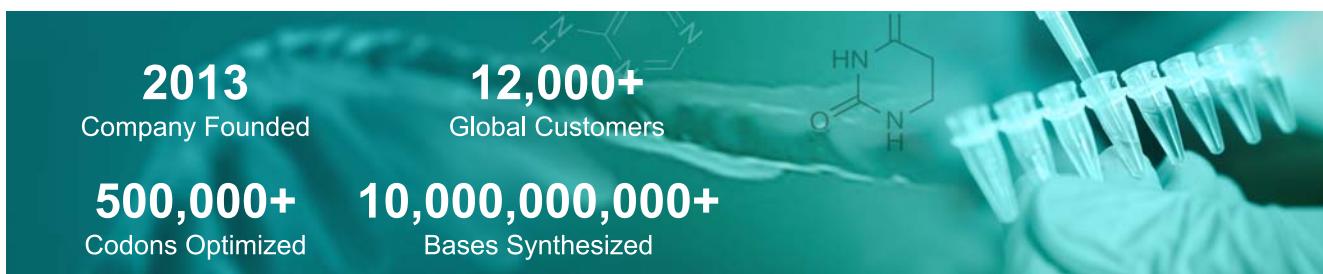
COLLAGEN

ACTIVE AESTHETIC INGREDIENT AAI

Collagen Types	Gene IDs	Expression Systems		
		Mammalian Cells	Yeast	<i>E. coli</i>
I	COL1A1	✓	✓	✓
	COL1A2	✓	✓	✓
II	COL2A1	✓	✓	✓
III	COL3A1	✓	✓	✓
XVII	COL17A1	✓	✓	✓

ONE-STOP DNA SOLUTIONS

Synbio Technologies founded in 2013 by a group of molecular synthetic biologists. We are committed to designing and building high-performance molecules for our clients, including all types of DNA, RNA, and proteins. With over 10 billion bases delivered by Synbio in the past decades, we empower our clients' success across various fields, including IVD, drug discovery, antibody engineering, novel enzymes, agriculture, synthetic biology, and more.



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