

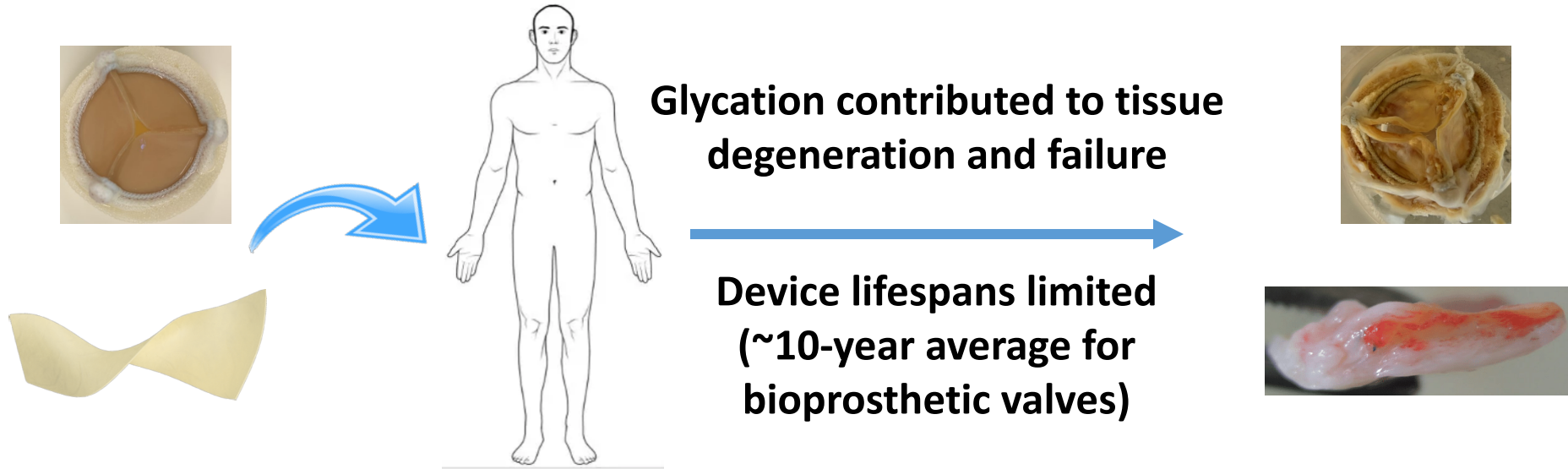
AGEless Biomedical

A Columbia startup to commercialize proprietary anti-glycation technology for bioprosthetic tissue

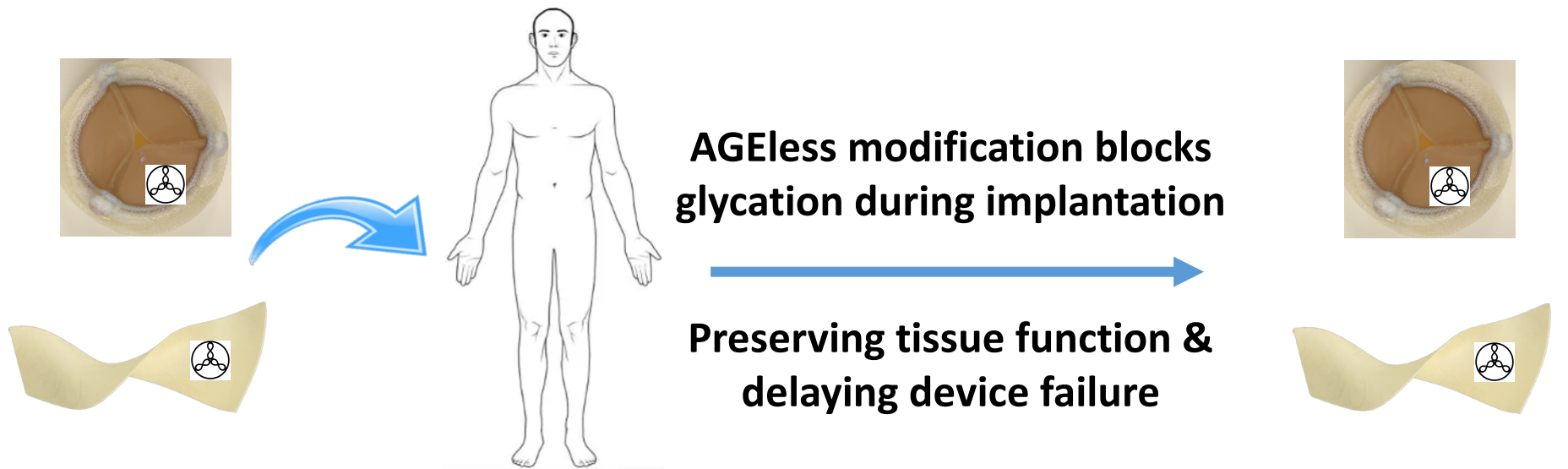


Value Proposition

Standard Bioprosthetic Implants



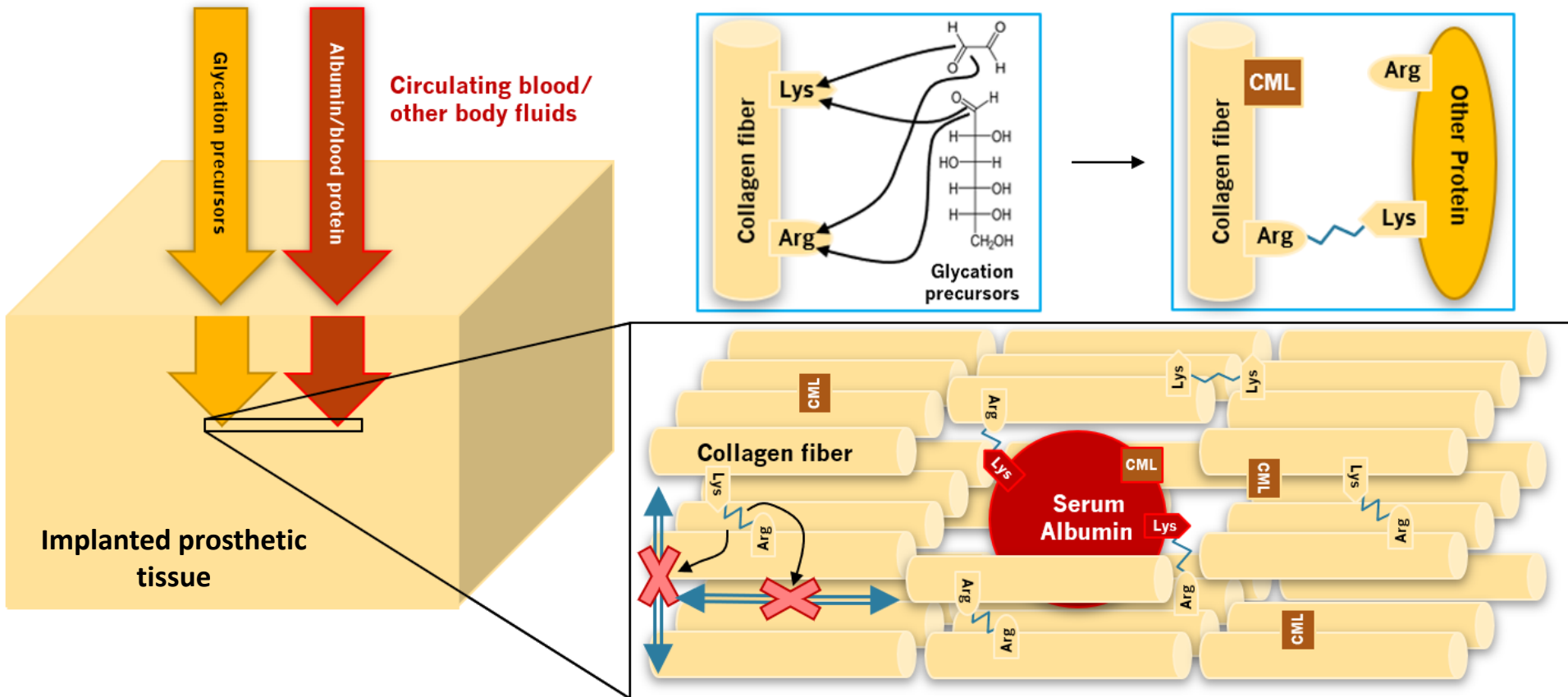
AGEless-Treated Bioprosthetic Implants



What is Glycation?



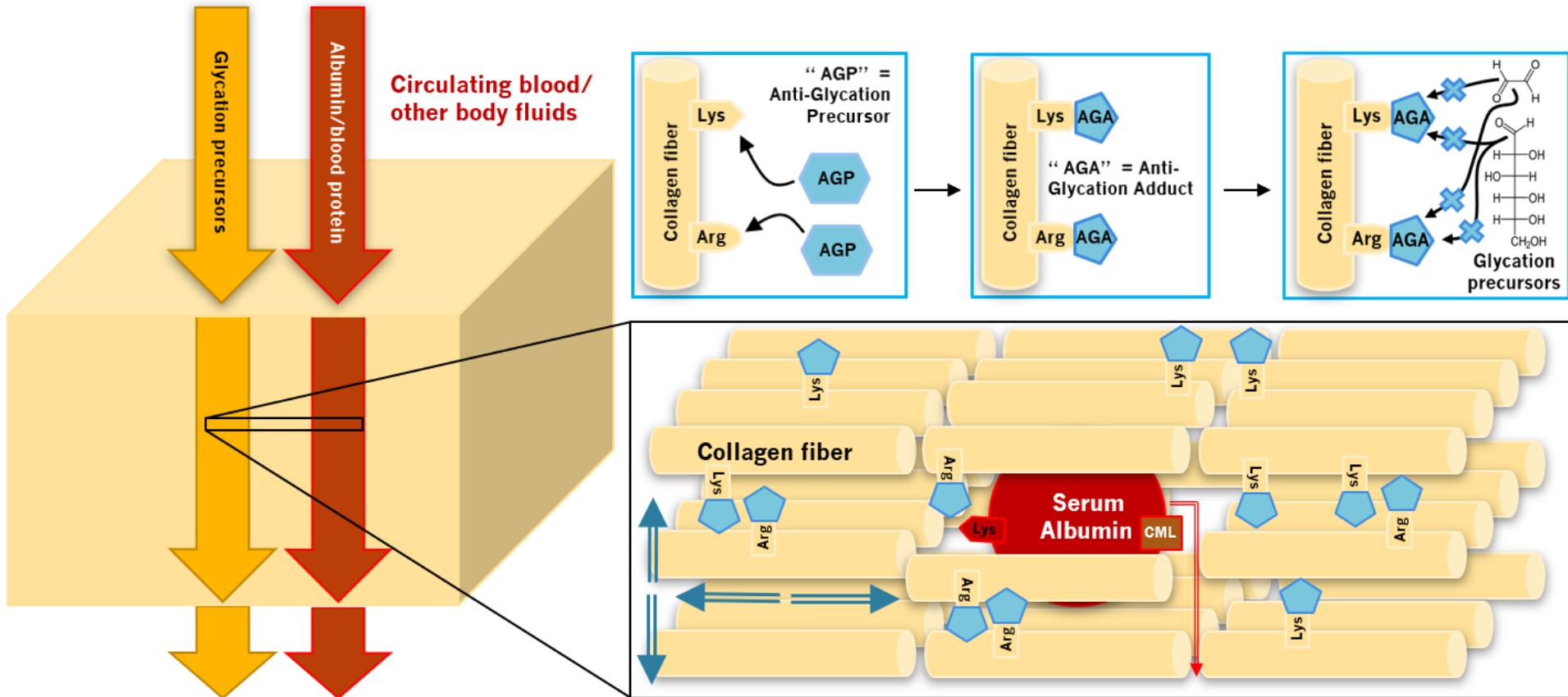
Sugar-based molecules in body fluids infiltrate prosthetic tissue and react with it to form “advanced glycation end products” (AGEs).
AGEs cause tissue stiffening, structural disruption, incorporation of “junk”, and contribute to functional failure



Our Tech is The Ideal Solution



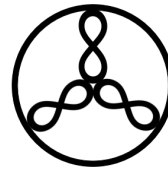
AGEless is a production-stage modification of prosthetic tissues that creates permanent, non-disruptive protective caps on the sites where glycation would otherwise occur, blocking the formation of AGEs during clinical implantation



Progression to Markets



Academic tech development



Corporate Spinout



**No-Risk Research Products
(Glycation Research Kits)**



**Lower-Risk Clinical Markets
(Prosthetic Patches)**



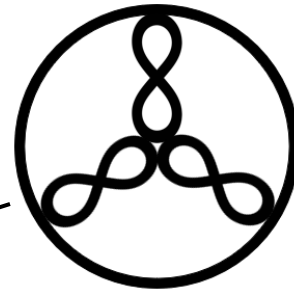
Higher-Risk, Larger Clinical Market (Heart Valves) & Diversification

The AGEless Technology Platform



We see AGEless as a platform technology.

While it was conceived in the context of heart valves, the mechanisms it addresses are clearly relevant to a wide diversity of bioprosthetic tissue-based clinical implants as well as in vitro experimentation



Clinical Implantation

In Vitro Science

Research applications do not require approvals

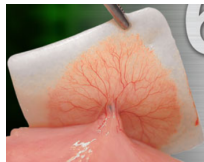
BHV



Edwards
Inspiris

**Biggest
Market**

Patches



Integra
Surgimend

**Faster, Easier
Clinical Market
Entry**

Conduits



Labcor
Corograft

Tissue Engineering Scaffolds



Geistlich
Bio-Oss

Kits for Biological Mechanism Analysis



Kits for Compound/Drug Screening

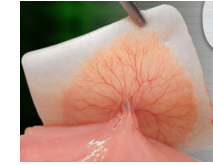


Regulatory Strategies



**1. No-Risk Research Products
(Glycation Research Kits, Tissue Scaffolds
for Research, Drug Screening Platform)**

Can directly enter markets.
Require zero FDA approvals



**2. Lower-Risk Clinical Markets
(Prosthetic Patches, Tissue
Scaffolds)**

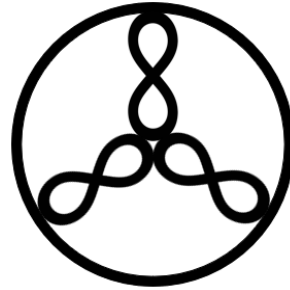
FDA 510(k) (device fast-track).
Many precedents for stacked 510(k)
approvals for new tissue
modifications;
No clinical trials necessary
2. Allows validation of AGEless tissue
equivalency in clinical implantation



3. Higher-Risk, Larger Clinical Markets (Heart Valves & Conduits)

FDA 510(k). Strong argument but no known precedent for 510(k) approval for tissue; Pre-validation of AGEless tissue equivalency in clinical setting via 2 would strongly boost 510(k) probability, saving cost and time to market entry

Who We Are



AGEless Biomedical Founders



Antonio Frasca, Ph.D.
Inventor, Founding CEO

- Experimental lead on glycation projects
- Conceived protein incorporation aspect
- Conceived, designed, developed bioprosthetic tissue anti-glycation IP

Antonio@agelessbiomedical.com



Prof. Giovanni Ferrari, Ph.D.
Inventor, Chief Scientific Advisor

- Conceived project investigating glycation in BHV
- Built multi-institutional cardiovascular biobank
- Oversaw bioprosthetic tissue anti-glycation IP development

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