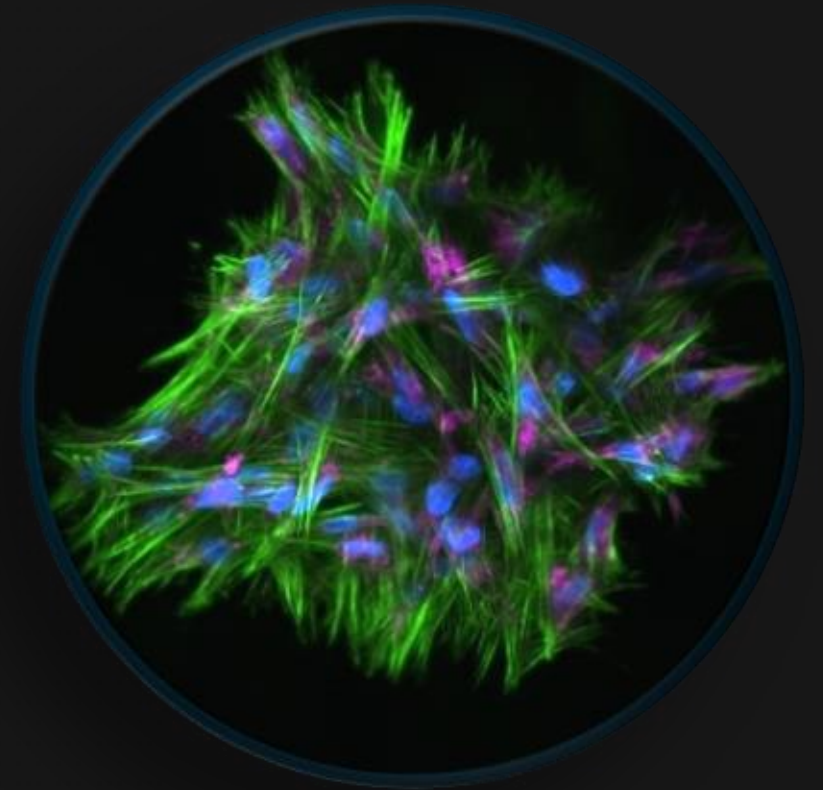




Bio-OS

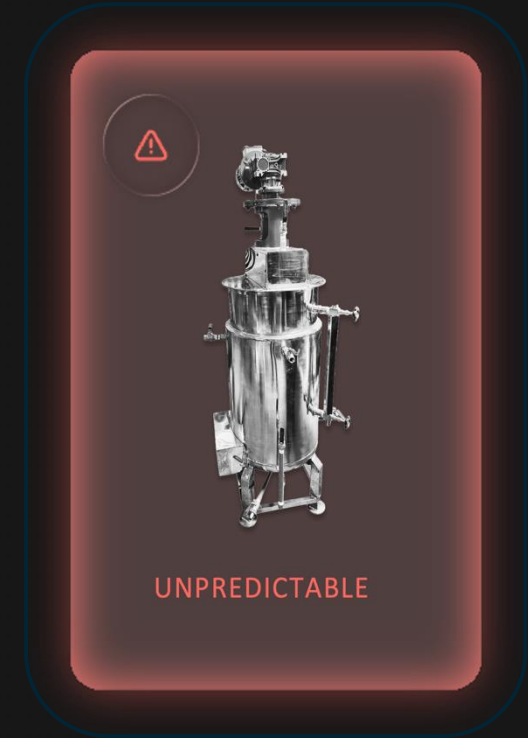
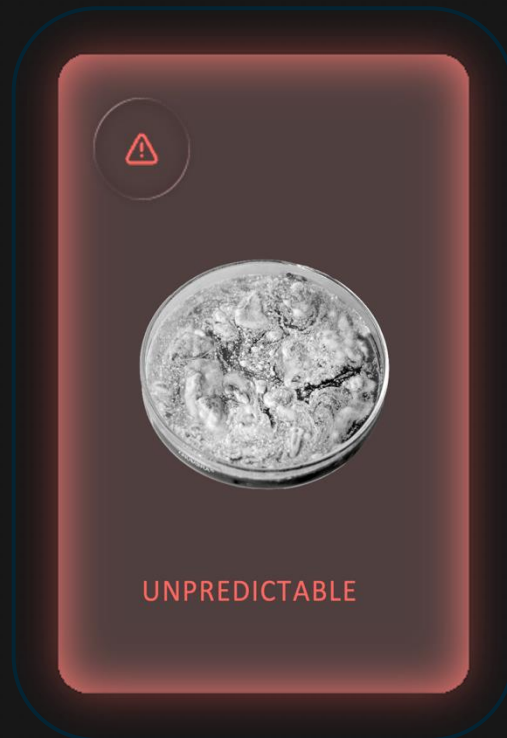
will do for biological manufacturing what
Nvidia's GPUs did for AI computing.



Biomanufacturing is Trapped....

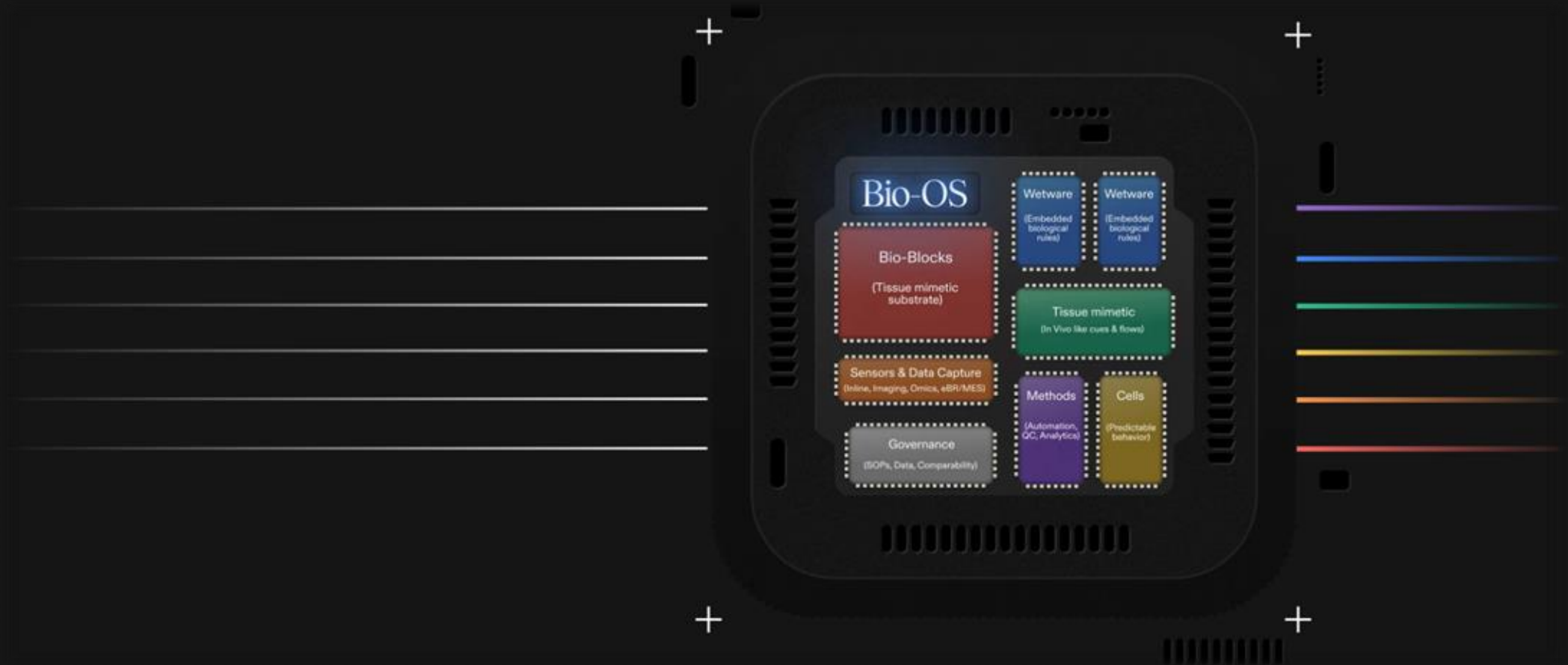
...limitations contributing to “value destruction” of ~\$250B per year.

The industry currently relies on petri dishes, flasks, and bioreactors designed for chemical or microbial systems, not complex mammalian cells... this exhausts the cells.



Solution is an architecture and programmability layer

Bio-OS™ is a modular manufacturing platform that replicates native human biomechanics, signaling, and tissue environments, *bridging In Vitro and In Vivo*.



Manufacturing Opportunity from R&D to Production

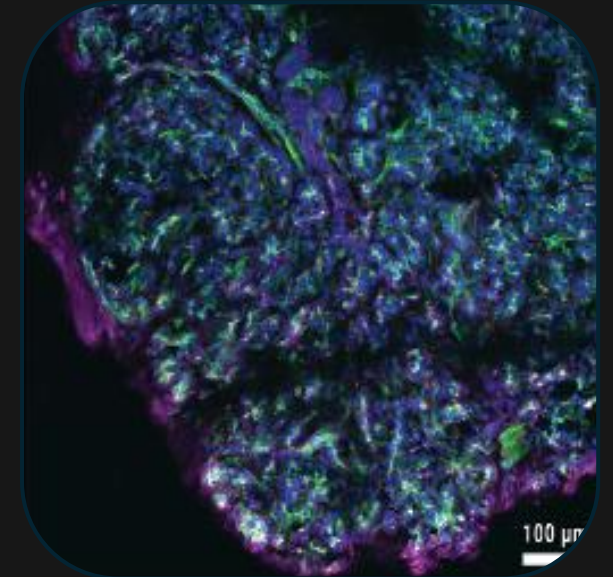
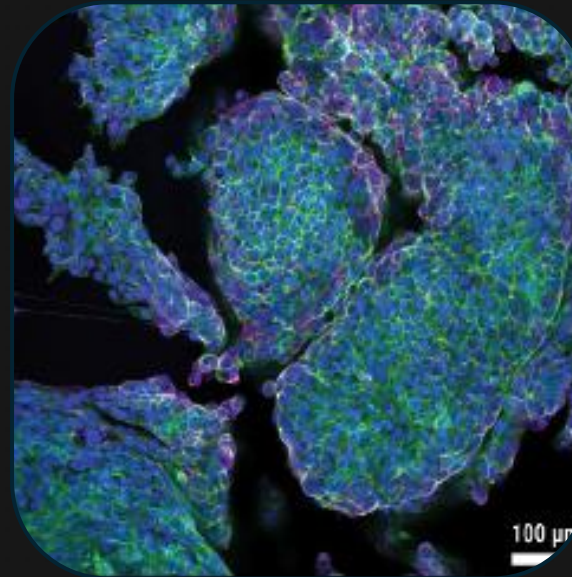
**Reduces Operational Costs
by Up to 90%.**



Equivalent surface area: 24 T75 flasks in a single 6-well Bio-OS plate.

Bio-OS delivers higher cell quality and yield through an optimized, subculture-free environment.

Produces a Human-*like* Microenvironment ... which produces higher quality cells and biological output.



Bio-OS-grown Panc-1 mirrors human pancreatic cancer tissue.

Bio-OS Application Configurations

Manufacturing



Continuous cell production.

Assembly



Controlled assembly of multiple cell types into tissues.

Diagnostic



Multiple data points from a single sample rather than many.

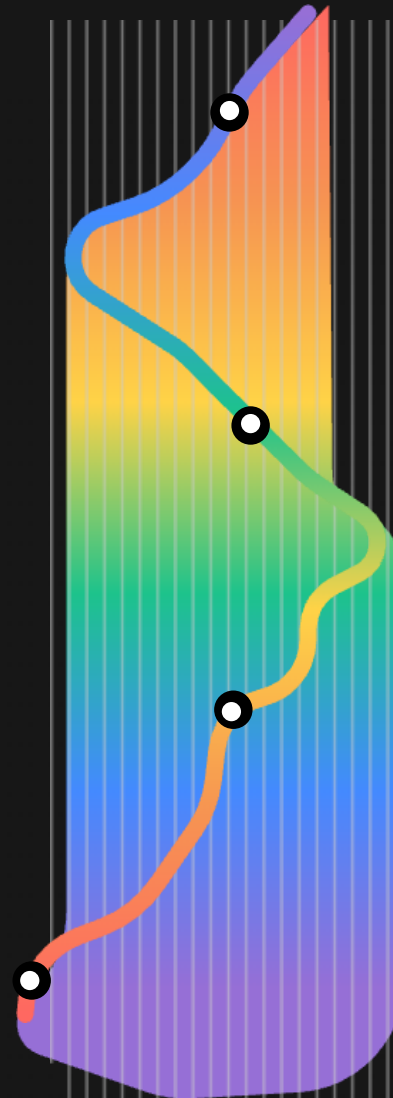
Engineering



Unparalleled control over cell phenotype.

Breakthrough Potential for Mass Produced Results

- Ronawk Delivers Enterprise Solution**
Turnkey operation for implementation.
- Ronawk Customizes Output to Customer Specifications**
Ex. perfusion, automation, secretome, tissue, etc.
- Ronawk Aligns Variables with its Proprietary Technology**
Ex. hardware , software, & wetware.
- Client Defines Output**
Ex. banking, shipping, engineering, assay, etc.

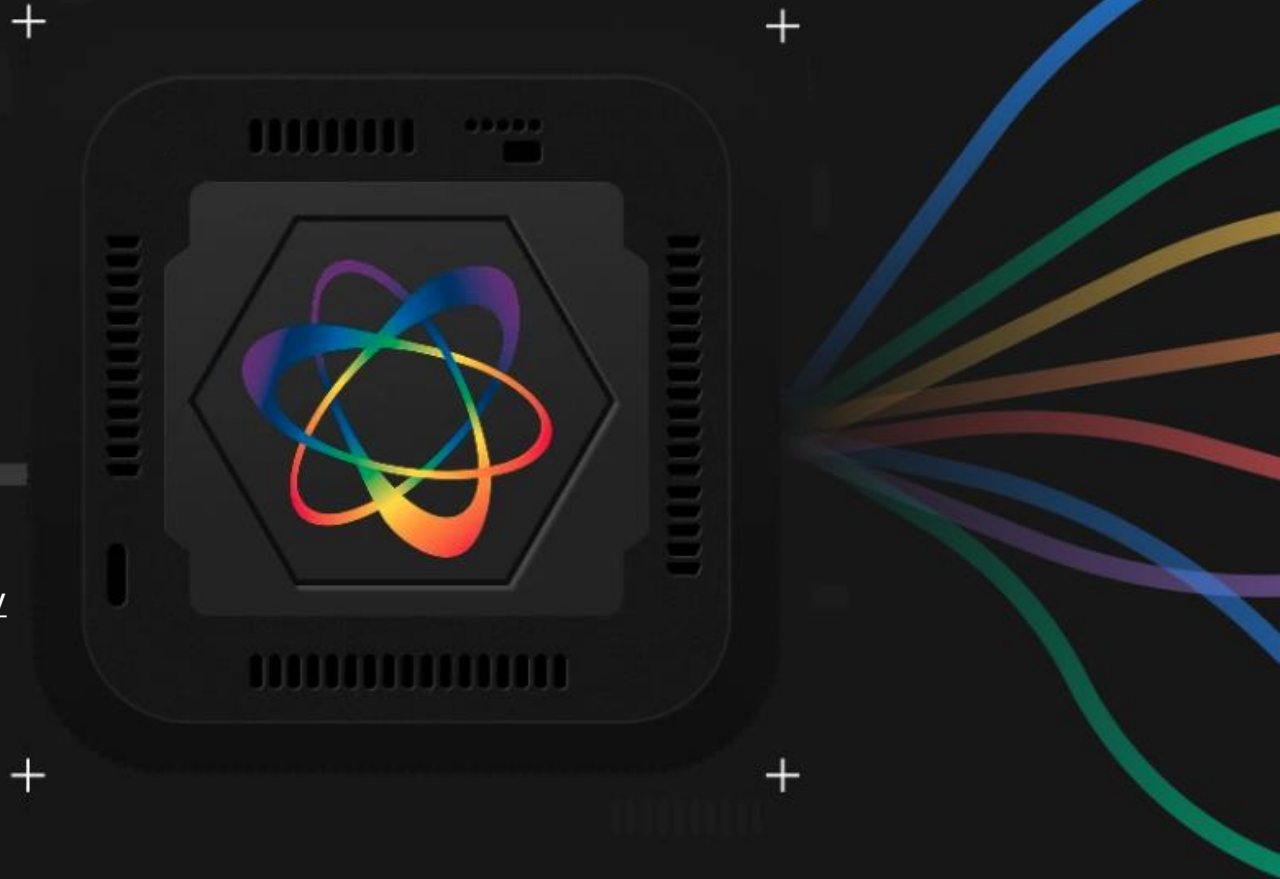


Ronawk's Bio-OS is the Right Biological Platform

Quick overview of validation:

- [Nikon App Note: Resolving subcellular detail in tissue-mimetic culture](#)
- [Comparison of 3D culture systems on mesenchymal stem cell longevity, regenerative potential, and secretome production](#)
- [Cellipont Bioservices and Ronawk Partner to Advance Scalable Expansion of High Quality Mesenchymal Stem Cells and Biologics](#)
- [Hydrogels as Infrastructure](#)
- [Mesenchymal Stem Cell Extracellular Vesicles from Tissue-Mimetic System Enhance Epidermal Regeneration via Formation of Migratory Cell Sheets](#)

For up-to-date news and publications visit our [Press Room](#) & [Validation Page](#)



This is Biology's GPU Moment



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