

## THE WATERSHED MOMENT BEHIND THE STORY:

# Custom-Engineered, 3D-Bioprinted Living Tissue Implants

3DBio Therapeutics has developed unique capabilities enabling the creation of living tissue implants for therapeutic applications. The company created not only the first 3D-bioprinted living implant, but also the entire suite of technologies, processes and engineering supporting the creation. The technology platform was purpose-built to meet the Federal Drug Administration's (FDA) requirements for therapeutic manufacturing.

3DBio Therapeutics is pioneering end-to-end surgical solutions using a patient's own cells and its integrated biotech manufacturing system. Its first bioprinted living tissue implant is being investigated in a clinical study to treat patients with microtia, a congenital condition in which the outer part of the ear is deformed or even wholly missing.

3D-bioprinting allows the creation of patient-matched implants (styled in size and shape) for individual patients from their own cells.

# GROUNDBREAKING PROPRIETARY TECHNOLOGY PLATFORM DELIVERS LIVING TISSUE IMPLANTS TO PATIENTS

The platform includes novel and proprietary integrated biotech manufacturing systems including four key FDA-compliant components:



ColVivo™ therapeutic **grade bio-ink:** ColVivo™ is a therapeutic-grade bio-ink platform, developed and manufactured by 3DBio specifically for therapeutic applications of 3Dbioprinting. The bio-ink was created to meet current Good Manufacturing Practice (cGMP) requirements for therapeutic use, while preserving key biological and rheological properties essential for 3D-bioprinting.



# Proprietary cell processes: 3DBio has developed

proprietary processes to ensure that, before incorporation into the ColVivo™ bio-ink, the cells are rapidly expanded in sufficient quantity while maintaining appropriate functionality, throughout the printing process as well as when the tissues are implanted.



### GMPrint™ GMPcompatible 3D-bioprinter:

GMPrint™ technology is a purpose-built, therapeuticgrade 3D-bioprinter, designed and manufactured by 3DBio. GMPrint™ comprises several proprietary and patented features enabling a sterile workflow combined with exceptional quality and speed, which differ from research-grade systems, in order to meet key cGMP requirements set by the FDA for manufacture of therapeutics.



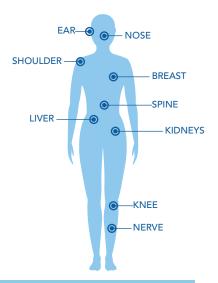
Overshell: The Overshell is a biodegradable polymeric framework that is designed to match the geometry of the implant and protect the implant during reconstruction procedures and the early in vivo phase as the implant matures, while supporting the implant's biological function and the patient's tissue regeneration process.



### **LOOKING AHEAD**

- FDA authorized the IND to begin a clinical trial for a first-of-its-kind investigational 3D-bioprinted implant, 3DBio Therapeutics is conducting a Phase 1/2a clinical trial evaluating AuriNovo™, a patient-specific implant for surgical reconstruction of the outer ear (auricle) in people born with microtia grades II-IV. The construct is a 3D-bioprinted collagen hydrogel encapsulating the patient's own auricular cartilage cells (chondrocytes).
- 3DBio Therapeutics is pursuing the creation of 3D-bioprinted tissue implants for other conditions.
- The current pipeline includes potential solutions for congenital defects or traumatic injuries as well as malformations that may result from tissue degeneration, cancer or surgical treatment of cancer. Other potential areas of reconstructive and regenerative therapy could include neurological abnormalities as well as whole organs.

### **FUTURE AREAS OF IMPACT**



# P P E L N E

				CLINCAL TRIAL		
INDICATION	PRODUCT	R&D	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3
Plastic & Reconstructive						
Microtia (Outer Ear)	AuriNovo™			PH1	/2a Trial	
Complex Nasal Defect	NasaNovo™					
Lumpectomy Reconstruction (Breast)						
Orthopedic						
Damaged Meniscus (Knee)						
Rotator Cuff Tear (Shoulder)						
Neurosurgical						
Herniated Intervertebral Disc (Spine)	AnnuNovo™					
Degenerative Disc Disease (Spine)	DiscNovo™					
Severed Nerves						
Organ Systems						
Kidney Failure						
Liver Failure						

For more information on 3DBio Therapeutics and its unique 3D-bioprinting technology to create implantable living tissue constructs, please visit **3DBioCorp.com**.

Certain information set forth in this document may constitute "forward-looking statements" under applicable securities laws. There are a number of factors that could cause actual results or outcomes to differ materially from those addressed in such forward-looking statements. Thus forward-looking statements are provided only as an opportunity to understand management's beliefs and opinions in respect of the company's future prospects.