

HOT Bone Inc.  
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**Industry:**  
Biotech, Medical Device

**Management:**  
Dr. Cato Thomas  
Laurencin, MD PhD-  
Founder, CEO

**Advisory Board:**  
TBD

**Scientific Advisory Board:**  
Mostafa Analoui, PhD  
Chair of Innovation &  
Entrepreneurship,  
Quinnipiac University

Mohamed Amr Attawia,  
MD  
Medical & Scientific  
Orthopedic Consultant

Robert Langer, PhD  
Institute Professor, MIT

**Number of Employees:** 1

**Finance:**  
Funding to Date:  
State of Connecticut:  
\$200,000

Funding Sought:  
\$2M Seed  
For:  
Animal Study for  
FDA approval (\$1M)  
FDA Application,  
approval and regulatory  
consulting (\$500k).  
Sales & Marketing  
(\$500k)

**IP:**  
Active provisional patent.  
Will convert to non-  
provisional in April 2025

**Legal:** Wiggin & Dana,  
LLP

### Company Description / Background:

Healing Orthopedic Technologies Bone (Hot Bone) is a pioneering company dedicated to utilizing a regenerative engineering approach to identify and execute effective treatments for challenging orthopedic conditions, especially knee osteoarthritis. The company's primary mission is to provide cutting-edge technologies designed to repair and regenerate musculoskeletal tissues.

### Market Opportunity / Unmet Need:

According to Precedence Research, the global osteoarthritis therapeutics market size is predicted to increase from \$10.84 billion in 2025 to approximately \$24.34 billion by 2034. Currently, over 500 million people globally are affected by osteoarthritis. As the population ages, one in four Americans can expect to experience osteoarthritis by 2040, necessitating the development of treatment options that delay or reverse symptoms.

### Solution / Product:

Our injectable, amnion-based product, the Joint Pillow, offers a single-use in-office joint injection for OA treatment. Amniotic membrane with its natural healing capabilities due to the biological factors it contains, has been shown to be safe for treating OA and other orthopedic disorders. Amnion has many components that reduce inflammation, slow disease progression, and promote cartilage repair in addition to reducing pain and improving movement. This innovative treatment approach is designed to meet the needs of both healthcare professionals and their patients, offering a compelling combination of simplicity, affordability, and safety.

### Competition / Competitive Advantage:

Our main competitors in OA treatment focus on pain management and cartilage repair using injectable products like Hyaluronic Acid (HA) (e.g., ORTHOVISC, DUROLANE, HYALGAN, Gel-One). While HA provides lubrication and pain relief, its effects on inflammation, cartilage breakdown, and regeneration are limited and inconsistent. ASA reduces pain and inflammation but has poor structural integrity, leading to short-term effects, limited cell or biologics delivery capabilities, and a lack of customization for mechanical support. Compared to other injectable products in the market, the Joint Pillow offers a comprehensive solution that offers more structural integrity and processing efficiency.

### Traction/Milestones:

Achieved: We performed pre-clinical research on small animals to prove the efficacy of the Joint Pillow, and are currently seeking funding for large animal studies. We have since raised \$200,000 through the state of Connecticut towards continuing these studies.

Pending: Once we are able to fund and complete our animal studies, we will enter the market with 361 approval with the FDA. After establishing proof of traction, we will sell the technology to larger players within the field (Bioventus, Globus, DePuy).

### Financial Forecast:

	Year 1	Year 2	Year 5
<b>Product Revenue</b>	\$99,100,000.00	130,000,000	160,000,000
<b>Gross Product</b>	\$49,550,000.00	84,500,000	128,000,000
<b>GP Margin</b>	50%	65%	80%