

# BONENTA, Inc.

Biopharmaceuticals for Better Bone Healing



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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health



National Institutes of Health Commercialization Assistance Program (NIH-CAP)

## Company Profile

**Industry Sector:** Musculoskeletal Devices;  
Biological drug-eluting synthetic bone grafts and implants

**Company Overview:** Bonenta is founded upon a proprietary platform technology for biologic drug development enabling both safety and effectiveness in the drug-eluting synthetic bone graft industry. Bonenta's lead product candidate enhances bone healing, and our intellectual property could become the gold standard of the bone graft industry.

**Target Market(s):** Synthetic bone grafts are a sector of the multi-billion dollar wound healing market. Craniofacial implants and bone grafting represent over a 5 billion dollar segment of this market, and is growing briskly at 15% (Kalorama), while the market for orthopedic implants and bone grafting is much larger. Bonenta will initially target craniofacial bone repair and is preparing for Phase I clinical trials.

## Key Value Drivers

**Technology:** Bonenta has exclusive license to a platform technology, patented November, 2006, with great potential for discovery of new drugs for bone healing. This technology allows us to create hundreds of thousands of potentially useful modifications to what our scientists and others have found to be critical molecules for growth and healing. Bonenta's patented technology delivers a DNA pro-drug allowing *in situ* generation of a novel biologic drug at the graft or implant site which serves as an important co-activator for the healing action of growth-factors. The technology was developed with funding from NIH NIDCR (DE016771).

**Competitive Advantage:** Bonenta's competitive advantage is that we can improve on safety, and increase cost/effectiveness within the emerging drug-eluting bone graft and implant sector of the musculoskeletal device industry under the protection of Bonenta's patented IP.

**Plan & Strategy:** To establish strategic corporate partnership(s) with current industry leaders while welcoming the strength and advantages of private financing will help us best commercialize our lead product and our pipeline candidates.

## Management

**Leadership:** Dr. Arthur DeCarlo, President and CEO  
Vice President for Marketing: Dr. Kathy Nugent  
Secretary/Treasurer: Dwight Brisendine, Internal Financial Control Services.  
Director; Richard Furey, White, Case LLP

**Corporate Advisory Board:**  
William "Sandy" White, CEO, Icon Bioscience, Inc.  
Jonathan Nugent, Principle, Red Mountain Bio

**Scientific Advisory Board:**  
Dr. John M. Whitelock, Professor of Biomedical Engineering, U. of NSW, Australia  
Dr. Ling Li, Torrey Pines Institute for Molecular Studies, Port St. Lucie, Florida.  
Dr. Patrick Hardigan, Director Statistical Consulting, NSU, Florida  
Dr. Nico Geurs, Director Postgraduate Periodontics, UAB, Alabama  
Dr. M. Renee Chambers, Assistant Prof., Neurosurgery, UAB, Alabama

## Product Development

A valuable aspect of Bonenta's licensed platform technology is the ability to replace the growth factor with another, or combine multiple growth-factors in a very cost-effective manner. In development are products expressing B247 and a bone growth factor in a single biologic, for grafts, or for implant coatings. In the future, we expect to provide new growth-factors and combinations of proteoglycans for bone healing.

Research	Discovery	Preclinical	Phase I
	B247 Synthetic Drug Eluting Bone Graft	◆	
	B247GF - Bone Graft Single Drug; GF and co-Activator	◆	
	B247GF - Implant Coating Combination Drug/Device	◆	