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# Amedica Announces Results of Independent Femoral Head Wear Testing

SALT LAKE CITY, UT -- (Marketwired) -- 02/27/17 -- Amedica Corporation (NASDAQ: AMDA), an innovative biomaterial company which develops and manufactures silicon nitride as a platform for biomedical applications, announced today that Researchers from the Department of Orthopaedic Surgery of Tokyo Medical University (Shinjuku-ku, Tokyo, Japan) led by Professor Kengo Yamamoto MD PhD recently completed a five million cycle (Mc) comparative hip simulator study examining the wear behavior of an advanced highly cross-linked and vitamin E stabilized polyethylene (E1® Zimmer-Biomet, Warsaw, IN, USA) against two different types of ceramic femoral heads -- MC<sup>2</sup>®silicon nitride (Amedica Corporation, Salt Lake City, UT, USA) and BIOLOX®delta (CeramTec, Plochingen, Germany). BIOLOX®delta is currently considered the "gold standard" for ceramic femoral head materials. While the polyethylene wear loss induced by both types of ceramic heads was extremely small (< 0.60 mg/Mc), mean wear associated with MC<sup>2</sup>®silicon nitride heads was approximately 15% lower than the BIOLOX®delta components.

This independent wear study was conducted in accordance with international standards at the Medical Technology Laboratory of the Rizzoli Orthopaedic Institute (Bologna, Italy) by Professor Aldo Toni MD under the supervision of Dr. Saverio Affatato PhD (Rizzoli Institute) with consultation and support from Professor Giuseppe Pezzotti PhD (Ceramic Physics Laboratory, Kyoto Institute of Technology, Sakyo-ku, Kyoto Japan). Amedica and Zimmer-Biomet (Tokyo Office) provided the femoral heads and acetabular liners; however, neither company actively sponsored the research.

The testing was independently conceived by Professors Yamamoto and Pezzotti, and funded by the Department of Orthopaedic Surgery of Tokyo Medical University. This is the first reported improvement in polyethylene wear performance by a ceramic other than BIOLOX®delta; and it is part of a series of planned comparative wear tests that will culminate at 12 Mc. Further details of this interim hip simulation test will be provided in a joint publication planned for release in a scientific journal.

"We are thrilled, though not surprised, at the remarkable wear properties of silicon nitride femoral heads," said Dr. B. Sonny Bal, CEO and President of Amedica Corporation. "Our previous work, already published in peer-review forums, has shown superb phase stability of silicon nitride *in vivo*, plus oxygen-scavenging properties that may confer long-term protection to polyethylene acetabular liners, along with bacterial resistance inherent in silicon nitride, toughness that is superior to any other biomaterial, and resistance to corrosion. The present wear data reflect the considerable scientific work that went into a thorough understanding of the surface chemistry and composition of our femoral heads, with development of engineering processes and proprietary methods that lead to a consistent, ultra-smooth articulating surface. Taken together, this favorable combination of

properties, supported by scientific data, reflect material science advancements that are necessary to differentiate total hip replacements in an otherwise commoditized market, and more importantly, toward extending the longevity of hip replacements beyond the second decade of life, post-implantation. These data will contribute to our continuing work and dialogue with the FDA to get the product approved for use clinically."

### ***About Amedica Corporation***

Amedica is focused on the development and application of medical-grade silicon nitride ceramics. Amedica markets spinal fusion products and is developing a new generation of wear- and corrosion-resistant implant components for hip and knee arthroplasty. The Company manufactures its products in its ISO 13485 certified manufacturing facility and, through its partnership with Kyocera, the world's largest ceramic manufacturer. Amedica's spine products are FDA-cleared, CE-marked, and are currently marketed in the U.S. and select markets in Europe and South America through its distributor network and its OEM partnerships.

***For more information*** on Amedica or its silicon nitride material platform, please visit [www.amedica.com](http://www.amedica.com).

### ***Forward-Looking Statements***

This press release contains statements that constitute forward-looking statements within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934, as amended by the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties. For example, there can be no assurance that we will be able to maintain our listing on any NASDAQ market. Other factors that could cause actual results to differ materially from those contemplated within this press release can also be found in Amedica's Risk Factors disclosure in its Annual Report on Form 10-K, filed with the Securities and Exchange Commission (SEC) on March 23, 2016, and in Amedica's other filings with the SEC. Forward-looking statements contained in this press release speak only as of the date of this press release. We undertake no obligation to update any forward-looking statements as a result of new information, events or circumstances or other factors arising or coming to our attention after the date hereof.

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