

## **Biotribology of a New Bearing Material Combination in a Rotating Hinge Knee Articulation**

*Gruppet al. 2013. Acta Biomaterialia.*

**A NOVEL** rotating hinge knee replacement has been investigated for wear of the novel Zirconium Nitride coated metal against PEEK-OPTIMA<sup>®</sup> Reinforced. This bearing couple is used for the bushings in the rotational and flexion axles and the medial and lateral flanges. The bearing couple has been identified as potentially useful for the treatment of patients with metal-ion hypersensitivity. The in-vitro simulation identified low wear of the novel PEEK-OPTIMA<sup>®</sup> Reinforced components (similar to that produced by CoCr in an identical investigation).



Europe and Asia Pacific  
Invibio Ltd.  
Technology Centre, Hillhouse International  
Thornton Cleveleys, Lancashire FY5 4QD  
United Kingdom  
Tel: +44 (0) 1253 898000  
FAX: +44 (0) 1253 898001

Americas  
Invibio Inc.  
300 Conshohocken State Road, Suite 120  
West Conshohocken, PA 19428  
USA  
866-INVIBIO (468-4246)  
Tel: +484 342 6004  
FAX: +484 342 6005

For further information email us at [info@invibio.com](mailto:info@invibio.com) or please visit our website at:

► [www.invibio.com](http://www.invibio.com)

The information contained herein is believed to be an accurate description of the typical characteristics and/or uses of Invibio product(s). However, it is your ultimate responsibility to determine the performance, efficacy and safety of using Invibio product(s) for a specific application. Suggestions of uses should not be taken as inducements to infringe any particular patent or as a representation that the product is suitable for such uses. INVIBIO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR OF INTELLECTUAL PROPERTY NON-INFRINGEMENT, INCLUDING, BUT NOT LIMITED TO PATENT NON-INFRINGEMENT, WHICH ARE EXPRESSLY DISCLAIMED, WHETHER EXPRESS OR IMPLIED, IN FACT OR BY LAW. FURTHER, INVIBIO MAKES NO WARRANTY TO YOUR CUSTOMERS OR AGENTS, AND HAS NOT AUTHORIZED ANYONE TO MAKE ANY REPRESENTATION OR WARRANTY OTHER THAN AS PROVIDED ABOVE.

INVIBIO SHALL IN NO EVENT BE LIABLE FOR ANY GENERAL, INDIRECT, SPECIAL, CONSEQUENTIAL, PUNITIVE, INCIDENTAL OR SIMILAR DAMAGES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR HARM TO BUSINESS, LOST PROFITS OR LOST SAVINGS, EVEN IF INVIBIO HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, REGARDLESS TO THE FORM OF ACTION.

© 2013 Invibio Biomaterial Solutions.

Invibio® and the Invibio logo are registered trademarks of Invibio Ltd. PEEK-OPTIMA® is a registered trademark of Invibio Ltd.

O-DP-PR-E-0100-A (10/2013)