

## **First Of Its Kind ARAMIS Cervical Disc Prosthesis—Revolutionary Cervical Disc Design Incorporates MOTIS High Performance Polymer to Reduce Wear Rate & Extend Service Life**

### OSIMPLANT

OSIMPLANT today announced its selection of MOTIS® polymer (from Invibio® Biomaterial Solutions, the market leader in providing PEEK-based biomaterials to medical device manufacturers around the world), for its CE marked ARAMIS cervical disc prosthesis. The groundbreaking device is the first to incorporate an inlay made from carbon fiber-reinforced MOTIS polymer.

According to OSIMPLANT General Manager Mr. Özcan Karadag, the high performing, versatile biomaterial provides new options in articulating devices. This is due to the combination of mechanical strength, creep resistance and wear performance, which are all vital to realizing the ARAMIS' innovative design potential. Invibio introduced carbon fiber-reinforced PEEK for structural medical device applications more than a decade ago. The successful clinical use has led to its use in articulating devices in knee, finger and spinal applications.

Designed to minimize patient pain and combat such spinal degenerative diseases as Spondylosis and herniated nucleus pulposus, ARAMIS relies on MOTIS' superior performance properties to advance patient and surgeon benefits. The design of its MOTIS-enhanced inlay, for example, significantly reduces wear rate between the inlay and endplates, thereby prolonging the service life of the implant.

Mr. Karadag says that, "During the development phase we considered alternative materials, such as polyethylene and ceramic. Ultimately, however, we selected MOTIS. MOTIS provides a wide range of technological and application benefits that exceed the performance attributes of traditional materials." In particular, said Mr. Karadag, "the proven benefits—including improved load bearing capabilities and extremely low wear-rate results against hard counterfaces, such as metal—indicate the effectiveness of MOTIS as an alternative to ceramics and UHMWPE in total disc arthroplasty."

Launched in Europe and the Middle East in July 2012, the ARAMIS is intended to restore anatomical balance and maintain physiological motion, ranging from flexion/extension, rotation through to lateral bending. Invibio's MOTIS polymer plays a pivotal role in the successful realization of this innovative device design, with key features that include:

- Enhanced medical design that is specifically tailored to meet the critical requirements of load bearing applications

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- Highly resistant to creep
- Extremely low levels of wear debris can be achieved against metal and ceramic counterfaces (compared to traditional materials such as UHMWPE)
- Proven biocompatibility and bio stability enabling safety and implant longevity

"Invibio and OSIMPLANT have a long, successful history of working together. Throughout this partnership, we have received outstanding service from Invibio, including biomaterial expertise, technical and regulatory support," added Mr. Karadag.

About Invibio: Invibio is a global leader providing high performance biomaterials, advanced technical research and consultative solutions to medical device manufacturers across a wide range of markets. The company provides medical device manufacturers with PEEK-OPTIMA® polymer and compounds, MOTIS® polymer, ENDOLIGN® composite and PEEK-CLASSIX® polymer for the development of long- and short-term implantable medical devices.

About OSIMPLANT: OSIMPLANT provides products and services according to needs of the health sector by using innovative technology to meet global market requirements. The company has established a complete quality assurance system to continuously fulfil the requirements according to ISO13485 and CE. These range from material procurement to design development and automated production process.

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