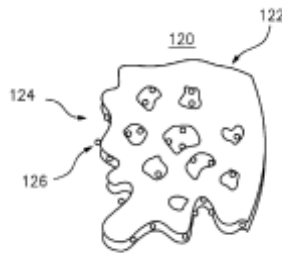




May 18, 2017

**OrthoMedex LLC Announces Issuance of USPTO Patent # 9,592,206  
and the Publication of USPTO Patent Application # 2017/0136156;  
Both Entitled:  
“Methods of Using Water-Soluble Inorganic Compounds  
for Implants”**



OrthoMedex LLC is pleased to announce the March 14, 2017 issuance of USPTO Patent # 9,592,206 and the May 18, 2017 publication of USPTO Patent Application # 2017/0136156. Both patents represent first and second OrthoMedex continuation patents following the successful issuance of the company's USPTO Patent # 8,673,018; all of which are entitled: Methods of Using Water-Soluble Inorganic Compounds for Implants. This family of patents provides for the use of inorganic compounds, such as bioactive glass, to enhance orthopedic implant fixation and provide for antimicrobial implant prophylaxis.

USPTO # 9,592,206 provides for the seeding of bioactive glass particles within the trabecular structure of cancellous bone allografts to stimulate osteoblast de novo bone matrix deposition, enhancing bone tissue regeneration, allograft fusion, and implant osseointegration. The technology also provides for the antimicrobial prophylaxis of such donor tissue upon implantation. The intellectual property has broad orthobiologic implant application in the fields of orthopedic trauma, reconstruction and revision, and spinal surgery, as well as dental implantology.

USPTO Patent Application # 2017/0136156 provides for alternative bioactive glass seeding and particle fixation means, in both porous-coated and 3D-printed orthopedic implants as well as allograft tissue.

Aseptic implant loosening and infection are the predominant cause of total hip [THA] and total knee [TKA] arthroplasty revision surgery, respectively.<sup>1</sup> In 2016 CMS promulgated the Comprehensive Care for Joint Replacement Act [CJR], a 'bundled' payment that includes 90 days of post-hospital discharge care.<sup>2</sup> According to the 2016 American Joint Registry,<sup>1</sup> 13% of all 'linked' THA and 15.2 % of all 'linked' TKA revision surgeries occurred within 90 days of total joint implantation, implying that

such hospital revision treatment may no longer be reimbursed by CMS, under CJR.

Starting this year CMS is scheduled to implement a similar 'bundled' payment program for Hip and Femur Fractures.<sup>3</sup> One in two women and one in four men over the age of 50 suffer from osteoporosis, making them more susceptible to long bone fractures due to falls.<sup>4</sup> 15% of all such fractures require some form of fixation revision.<sup>4</sup>

Surgical Sites Infections [SSIs] are the most common and costly form of US hospital-acquired infections.<sup>5</sup> Approximately 160,000 - 300,000 SSIs occur each year, adding 7 – 11 additional postoperative hospital-days per patient.<sup>6</sup> SSIs are believed to increase US healthcare costs by approximately \$3.5 – 10 Billion annually.<sup>6</sup>

“In an age of regenerative medicine, the ability of bioactive glass to stimulate osteoblasts to produce new bone matrix as an alternative to biological approaches, such as recombinant growth factor proteins, human mesenchymal stem cells, and ex-vivo bone tissue engineering, would appear to pave a new regenerative medicine pathway to enhance implant and allograft fixation” said Jim Walls, OrthoMedex’s Founder and CEO. “Additionally, the ability of bioactive glass to provide the implant with antimicrobial prophylaxis distinguishes this technology from biologic approaches. Furthermore, the glassy material is immune to terminal sterilization techniques, which can degrade or denature growth factor proteins, stem cells and tissue.”

OrthoMedex LLC, [www.orthomedex.com](http://www.orthomedex.com), is a Connecticut-based start-up orthopedic implant company, leveraging the osteostimulative and antimicrobial attributes of bioactive glass to address the unmet implant fixation and infection control needs of the orthopedic surgeon. For further information please contact:

Jim Walls  
Founder & CEO  
OrthoMedex LLC  
Email: [jim.walls@orthomedex.com](mailto:jim.walls@orthomedex.com)

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