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PRESS RELEASE

The BIOLOX[®] *delta* Success Story: 20 Years and Counting

CeramTec to celebrate anniversary of high-performance ceramic material at AAOS

Plochingen, March 1, 2023 – CeramTec will celebrate 20 years of their high-performance BIOLOX[®] *delta* ceramic material at this year's annual meeting of the American Academy of Orthopedic Surgeon (AAOS, March 7-11).

Over the past two decades, millions of patients have been implanted joint replacement components made of the BIOLOX[®] *delta* material. Ever since its introduction to the market in 2003, the material has set highest standards in arthroplasty¹. Today, no other manufacturer's ceramic material is used as often for hip bearing couples as the advanced pink BIOLOX[®] *delta* ceramics.

Katrin Sternberg, President Medical at CeramTec, says: "The excellent mechanical properties and biocompatibility²³⁴ of BIOLOX[®] *delta* have certainly contributed to the material's great success. In times where metal sensitivities and multi-resistant germs continue to be on the rise, surgeons value our metal-free BIOLOX[®] *delta* material as a reliable option in arthroplasty."⁵⁶ Ms. Sternberg particularly underscored the importance of surgeon education and collaboration: "The clinicians' goal continuously to improve patient outcomes has significantly contributed to the great success of BIOLOX[®] *delta*. We look forward to partnering with surgeons across the globe also in the future, so that together we can help people to regain mobility."

CeramTec warmly invites visitors of AAOS 2023 to booth #5643.

¹ Sharplin P, Wyatt MC, Rothwell A, Frampton C, Hooper G. Which is the best bearing surface for primary total hip replacement? A New Zealand Joint Registry study. *Hip Int.* 2018;28(4):352-362. doi:10.5301/hipint.5000585.

² Maccauro G, Cittadini A, Magnani G, Sangiorgi S, Muratori F, Manicone PF, Rossi Iommetti P, Marotta D, Chierichini A, Raffaelli L, Sgambato A. In vivo characterization of Zirconia Toughened Alumina material: a comparative animal study. *Int J Immunopathol Pharmacol.* 2010;23(3):841-846. doi:10.1177/039463201002300319.

³ Cunningham BW, Hallab NJ, Hu N, McAfee PC. Epidural application of spinal instrumentation particulate wear debris: a comprehensive evaluation of neurotoxicity using an in vivo animal model. *J Neurosurg Spine.* 2013;19:336-350. doi:10.3171/2013.5.SPINE13166.

⁴ Asif I M. Characterisation and Biological Impact of Wear Particles from Composite Ceramic Hip Replacements. [PhD thesis]. Leeds, UK: University of Leeds; 2018. etheses.whiterose.ac.uk/20563. Accessed March 6, 2020.

⁵ Tsaousi A, Jones E, Case CP. The in vitro genotoxicity of orthopaedic ceramic (Al₂O₃) and metal (CoCr alloy) particles. *Mutat Res.* 2010;697(1-2):1-9. doi:10.1016/j.mrgentox.2010.01.012.

⁶ Esposito C, Maclean F, Campbell P, Walter WL, Walter WK, Bonar SF. Periprosthetic tissues from third generation alumina-on-alumina total hip arthroplasties. *J Arthroplasty.* 2013;28(5):860-866. doi:10.1016/j.arth.2012.10.021.



Surgeon holding hip replacement with components made of BIOLOX®delta high-performance ceramics. (©CeramTec)

About CeramTec

CeramTec is a leading global med-tech platform with a focus on high-performance ceramics (“HPC”) solutions, and is specialized in the development, manufacturing and sale of parts, components and products made from ceramic materials. With over a century of developmental and production experience in the HPC industry, CeramTec is a global leader in the manufacturing of advanced ceramics and engineers these materials for use in a wide variety of applications. HPC from CeramTec are used in a range of areas, including critical medical applications such as hip replacements, other orthopedic implants, dental implants and medical equipment, and industries including mobility, electronics, and in other industrial applications. With production sites and subsidiaries in Europe, North and South America as well as Asia, CeramTec maintains its presence around the globe as a manufacturer and supplier. The company is headquartered in Plochingen, near Stuttgart. In 2021, CeramTec generated more than €640 million in revenues. CeramTec employs almost 3,500 staff worldwide, around 2,000 of which are in Germany.

BIOLOX®delta is a registered trademark of the CeramTec Group.