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Nota di contenuto	<p>Joep Kraeima, Sebastiaan de Visscher and Max Witjes Three-Dimensional Innovations in Personalized Surgery -- Sherif Idris, Heather Logan, Paul Tabet, Martin Osswald, Suresh Nayar and Hadi Seikaly The Accuracy of 3D Surgical Design and Simulation in Prefabricated Fibula Free Flaps for Jaw Reconstruction -- Nick Assink, Anne M. L. Meesters, Kaj ten Duis, Jorrit S. Harbers, Frank F. A. Ijpma and Hugo C. van der Veen et al. A Two-Step Approach for 3D-Guided Patient-Specific Corrective Limb Osteotomies -- Anne M. L. Meesters, Miriam G. E. Oldhoff, Neeltje M. Trouwborst, Nick Assink, Joep Kraeima and Max J. H. Witjes et al. Quantitative Three-Dimensional Measurements of Acetabular Fracture Displacement Could Be Predictive for Native Hip Survivorship -- Bram B.J. Merema, Max J.H. Witjes, Nicolaas B. Van Bakelen, Joep Kraeima and Frederik K. L. Spijkervet Four-Dimensional Determination of the Patient-Specific Centre of Rotation for Total Temporomandibular Joint Replacements: Following the Groningen Principle -- Juliana F. Sabelis, Ruud Schreurs, Harald Essig, Alfred G. Becking and Leander Dubois Personalized Medicine Workflow in Post-Traumatic Orbital Reconstruction -- Bram B. J. Merema, Jelbrich J. Sieswerda, Frederik K. L. Spijkervet, Joep Kraeima and Max J. H. Witjes A Contemporary Approach to Non-Invasive 3D Determination of Individual Masticatory Muscle Forces: A Proof of Concept -- Enkh-Orchlon Batbayar, Nick Assink, Joep Kraeima, Anne M. L. Meesters, Ruud R. M. Bos and Arjan Vissink et al. Quantitative Three-Dimensional Computed Tomography Measurements Provide a Precise</p>

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Sommario/riassunto

Current practice involves the use of 3D surgical planning and patient-specific solutions in multiple surgical areas of expertise. Patient-specific solutions have been endorsed for several years in numerous publications due to their associated benefits around accuracy, safety, and predictability of surgical outcome. The basis of 3D surgical planning is the use of high-quality medical images (e.g., CT, MRI, or PET-scans). The translation from 3D digital planning toward surgical applications was developed hand in hand with a rise in 3D printing applications of multiple biocompatible materials. These technical aspects of medical care require engineers' or technical physicians' expertise for optimal safe and effective implementation in daily clinical routines. The aim and scope of this Special Issue is high-tech solutions in personalized surgery, based on 3D technology and, more specifically, bone-related surgery. Full-papers or highly innovative technical notes or (systematic) reviews that relate to innovative personalized surgery are invited. This can include optimization of imaging for 3D VSP, optimization of 3D VSP workflow and its translation toward the surgical procedure, or optimization of personalized implants or devices in relation to bone surgery.
