ADT : foundation
advancing digital technology in head & neck reconstruction ™

DOMINIC EGGBEER

Prof. of Healthcare Applications of Design

PROFILE

I am committed to improving health and wellbeing through the development of advanced 3d digital design engineering technologies applied to the management of acute and chronic conditions.

I have nearly 20 years' experience of research and innovation projects that aim to improve design performance within public and private sector organisations on subjects around patient specific medical device design, user centred design and advanced manufacturing technologies. My expertise centres on surgical implants, facial prosthetics, dental devices, physical medicine and rehabilitation.

Through close collaboration with medical specialists, my team and I have developed new ways of understanding and measuring the impact technology introduction has within healthcare. My experiences have also reinforced the value of cross-discipline working and highlighted the importance of understanding the context and impact that developing new approaches has on the training requirements, resources and efficiency of healthcare services.

Being part of the ADT Foundation is an opportunity to share knowledge and advance education in an exciting and rapidly evolving field.

Contact

PHONE:
+44(0)29 2041 6703

WEBSITE:
www.dominiceggbeer.com

EMAIL:
deggbeer@pdronline.co.uk

POSITIONS

President of the ADT Foundation
Oct. 2019 - Current

Head of Surgical & Prosthetic Design
PDR, Cardiff Metropolitan University, Wales, UK

Design and Research Consultant (Hon.)
Swansea Bay University Health Board

RECENT & RELEVANT PUBLICATIONS

Budak I., Kiralj A., Sokac M., Santosi Z., Eggbeer D., Peel S. (2018) Computer-aided methods for single stage fibrous dysplasia excision and reconstruction in the zygomatico-orbital complex. Rapid Prototyping J. 25(4) 728-737.

Burton. H., Peel S., Eggbeer D. (2018) Reporting fidelity in the literature for computer aided design and additive manufacture of implants and guides. Additive Manufacture J. 23(Oct) pp: 362-373. https://doi.org/10.1016/j.addma.2018.08.027

Peel S., Eggbeer D., Burton H., Hanson H., Evans P. (2018) Additively manufactured versus conventionally pressed cranioplasty implants: An accuracy comparison. Proc. of the Institution of Mechanical Engineers, Part H: J of Engineering in Medicine. 232(9) 949–961. https://doi.org/10.1177/0954411918794718

O'Malley F.L., Millward H., Eggbeer D., Williams R.J., Cooper R. (2016). The use of Adenosine Triphosphate Bioluminescence for Assessing the Cleanliness of Additive-Manufacturing Materials used in Medical Applications. Additive Manufacturing J. Vol. 9: 25-29. http://dx.doi.org/10.1016/j.addma.2015.12.002

Peel, S., Bhatia, S., Eggbeer, D., Morris, D., Hayhurst, C. (2017) Evolution of design considerations in complex craniofacial reconstruction using patient-specific implants. Proceedings of the Institution of Mechanical Engineers, Part H: J. of Engineering in Medicine. https://doi.org/10.1177/0954411916681346

Peel S., Eggbeer D., Sugar A., Evans P. (2016). Post Traumatic Zygomatic Osteotomy and Orbital Floor Reconstruction Using Digital Tools and 3D-Printing – A Case Report. Rapid Prototyping J. 22(6): 878-886. http://dx.doi.org/10.1108/RPJ-03-2015-0037

Daniel S., Eggbeer D. (2016). A CAD & AM process for maxillofacial prostheses bar-clip retention. Rapid Prototyping J.. 22(1) 170 – 177.

Peel S., Eggbeer D. (2016). Additively Manufactured Maxillofacial Implants & Guides - Achieving Routine Use. Rapid Prototyping J. 22(1): 189 – 199. http://dx.doi.org/10.1108/RPJ-01-2014-0004