Dr. Jon Molina-Aldareguia (PhD Cambridge University, 2002) is Deputy Director of IMDEA Materials Institute and Associate Professor of 3D printing at the Universidad Politécnica de Madrid (UPM). Dr. Molina-Aldareguia is an expert on the mechanical behavior of materials across multiple length scales. He has pioneered the implementation of nanomechanical testing techniques in extreme conditions, such as nonambient temperature, and /or *in situ*, to interrogate materials' structure during processing and service using electron, optical and/or X-ray spectroscopy. Current lines of research include the development of metamaterials and smart materials by additive manufacturing for biomedical applications, including Ti, Mg, Zn and TiNi-based devices.