

Tentative Outline

Special Thematic Issue for Current Medical Imaging

Title: Special issue on 3D printing in medical applications

Guest Editors: Prof. Zhonghua Sun, Dr. Laszlo Kiraly and Dr. Jan Witowski

Aims & Scope:

The journal of Current Medical Imaging (CMIM, formerly named Current Medical Imaging Reviews-CMIR) invites authors to submit articles on the applications of 3D printing in medicine. CMIM publishes high quality peer-reviewed original reports and reviews in medical imaging, including X-ray, ultrasound, CT, MR imaging and spectroscopy, nuclear medicine and related modalities, and their application in the medical imaging field.

Three-dimensional (3D) printing has emerged as a new technique with clinical applications from offering new treatments to improving patient outcomes and saving lives. 3D printed models based on individual patient's medical images such as echocardiographic, computed tomographic or magnetic resonance imaging can be created and used to guide pre-surgical simulation and planning, and intraoperative orientation through providing unique anatomy for individual patients diagnosed with complex pathologies, and improve patient-doctor communication. Patient-specific realistic 3D printed models are used to tailor therapies for an individual patient, and achieve the goal of personalized medicine.

This special issue focuses on the recent advance of the 3D printing technology and its clinical applications in medicine. The main objective of this special issue is to provide an overview of the current advances in 3D printing, with a special emphasis given to the patient-specific 3D printed models in the diagnosis and management of different diseases.

Keywords:

Subtopics:

Potential topics include, but are not limited to:

- Recent progress and development of 3D printing technology in medicine
- Recent development of 3D printing materials that have particular applications to medical models
- 3D printing in cardiovascular applications
- 3D printing in congenital heart disease
- 3D printing in interventional cardiology
- 3D printing in pre-surgical planning and simulation of tumour treatment
- 3D printing for endovascular treatment
- 3D printing in tissue engineering
- Bioprinting

Read this note before submission:

Authors are encouraged to discuss with the guest editors to determine the suitability of their intended manuscripts. Before submission authors should carefully read over the journal's Author guidelines, which are available at Submission of manuscripts should be completed through online submission *via*

<http://www.eurekaselect.com/node/610/current-medical-imaging/ifa>

Schedule:

- ✧ Manuscript submission deadline: 31 May, 2020
- ✧ Final manuscripts due: 31 October, 2020

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