Contrast Media & Molecular Imaging

Special Issue on

Imaging Diagnostic and Pathology in the Management of Oncological-Patients

CALL FOR PAPERS

Personalized medicine is one of the main objectives of both basic and translational cancer research. Nevertheless, it has become clear that the creation of personalized therapeutic protocols requires synergistic, transdisciplinary competencies. Indeed, new approved therapies rarely take into account both the interindividual variability and the aptitude of cancer cells to undergo those genetic and molecular adaptation involved in drug resistance phenomenon. Thus, although promising biomedical discoveries have been made, the setup of "patient-tailored" medical care is still far from becoming reality. Indeed, only rarely molecules that overcome preclinical trial steps are truly translatable to the clinical side for diagnostic or therapeutical purposes. The discrepancy between experimental data and the possible use in both diagnosis and therapy of new anticancer molecules is due to several causes: biological differences between human diseases and animal models, inconsistence of experimental plans, and/or wrong interpretation of the results. On note, in several proclinical studies no validation of data is performed by pathologists with long-term experience in cancer animal models.

Given these considerations, the realization of "patient-tailored" therapeutic anti-cancer protocols requires the synergic combination among expertise of several disciplines such as nuclear medicine and anatomic pathology seems evident. They constitute two fundamental approaches for the establishment of the diagnosis, the clinical monitoring, the evaluation of patients' prognosis, and their response to therapy.

The main focus of this special issue will be on the precious contribution offered by a close alliance between imaging diagnostic (both nuclear medicine and radiology) and anatomic pathology to the scientific community. Indeed, the construction of a structured collaboration model between these disciplines can speed up the achievement of a medicine that takes into account the uniqueness of the human being.

We particularly take an interest in manuscripts reporting new data/hypothesis in the field of oncological research that are supported by the integration among radiological, molecular imaging and histopathological analysis.

Potential topics include but are not limited to the following:

- Management of oncological patients in the digital era: from imaging diagnostic to digital pathology
- Early prognostic/predictive markers of oncological diseases
- New molecular prognostic/predictive factors for bone metastasis
- Radiological, histological, chemical, and molecular analysis of breast microcalcifications: diagnostic and biological value
- Choline and PSMA PET/CT in prostate cancer patients. In vivo and ex vivo investigations.
- In vivo and ex vivo imaging of tumor-infiltrating immune cells
- Circulating tumor markers (i.e., DNA and cancer cells)
- Artificial intelligence techniques in digital image processing
- New methods to match radiological, MRI, PET, and SPECT images to histological slides
- Animal models and development of new oncological biomarkers

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/cmmi/idpm/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor
Elena Bonanno, University of Rome "Tor Vergata", Rome, Italy
elena.bonanno@uniroma2.it

Guest Editors
Orazio Schillaci, University of Rome "Tor Vergata", Rome, Italy
orazio.schillaci@uniroma2.it

Alessandro Bombonati, Albert Einstein Medical Center, Philadelphia, USA
bombonaa@einstein.edu

Nicola Toschi, Harvard Medical School, Boston, USA
toschi@med.uniroma2.it

Pietro Muto, Ospedali dei Colli Monaldi, Naples, Italy
pietro.muto@ospedalideicolli.it

Submission Deadline
Friday, 20 July 2018

Publication Date
December 2018