Aims & Scope:

The identification and quantification of biomarkers is a powerful tool to determine the health status of a living organism. The measurement of such an indicator provides essential information on biological and pathogenic processes. This information can be used for the stratification of patients, the diagnosis of diseases and the monitoring of therapeutic interventions. Ageing, the ultimate and inevitable condition towards death is characterized by multiple changes in the efficiency of cellular mechanisms and an increasing imbalance of biological reactions. These changes are often reflected in age related diseases e.g. cardiovascular disease, cancer, diabetes and neurodegenerative disorders. These first events can be monitored by biomarkers which demonstrated changes on the molecular levels, years and sometimes centuries before the clinical symptomatic appearance of the disorder. The identification of potent biomarkers is an ongoing task, therefore the need for suitable model organisms, technologies and analytical techniques is obvious. In our special issues we will give an overview about the latest aspects of age related diseases, high end technologies to monitor blood brain integrity e.g. Magnetic resonance tomography and one of the most recent class of biomarkers, so called extracellular vesicles from different body fluids. The cooperation of these interdisciplinary approaches will shape the development of the precision medicine of the future.

Topics to be covered (main bioactive component):

- Protein aggregation and Autophagy
- Biomarker
- Extracellular Vesicles
- Cardiovascular Disease,
- Alzheimer's disease,
- Type-2-Diabetes
- Magnetic resonance tomography of the blood brain barrier

Keywords:
Ageing, Alzheimer’s disease, Cardiovascular Disease, Diabetes, biomarker, extracellular vesicles

**Schedule:**

July 2018