

**Joint Symposium 1**

Cardiovascular+ Inflammation & Infection Committee / European Association of Cardiovascular Imaging (EACVI)

Sunday, September 10, 09:45 – 11.15

Session Title

PET in valvular disease: all in!

Chairpersons

Carmela Nappi (Naples, Italy)

Federico Caobelli (Basel, Switzerland)

Programme

09:45 - 10:10 **Jacek Kwiecinski** (Warsaw, Poland): Calcification

10:10 - 10:35 **Frank Bengel** (Hannover, Germany): Myocardial inflammation and fibrosis

10:35 - 11.00 **Paola Erba** (Bergamo, Italy): Endocarditis

11.00 – 11.15 **Round Table**

Educational Objectives

1. To learn new advances in PET imaging in patients with valvular disease
2. To provide a multidisciplinary approach in the imaging of diverse clinical conditions related to valvular diseases
3. To allow for an exchange of information between imaging experts and clinical cardiologist to lead future research projects

Summary

Valvular diseases are relatively frequent in the population, and their incidence increases in the elderly. There is evidence of different clinical disorders correlated to valvular diseases, not limited to infection related ones, e.g. inflammation and fibrosis. A prompt diagnosis of such conditions may be a crucial step to allow for an early and effective therapy strategy, able to prevent cardiovascular events. Of note, especially for myocardial inflammation and fibrosis many different potential molecular targets can be identified, also with theranostic potential, which can be effectively traced by molecular imaging. Development of novel and specific therapies to modulate inflammation may be aided by targeted imaging agents, which provide not only a surrogate indicator of therapeutic efficacy, but also identify the appropriate targeting and timing of optimal treatment. Common targets for imaging and therapies may also introduce a new paradigm in clinical evaluation, where imaging endpoints may serve as ancillary indicators of therapeutic success or failure in clinical trials. This approach may also assist in the selection of appropriate patient populations for a specific intervention, working toward personalized precision medicine. This session will address evolving approaches for molecular imaging in imaging cardiac alteration related to valvular diseases from a multidisciplinary point of view, wherein clinical cardiologists and clinical imaging experts and preclinical scientists will discuss the state-of-the-art and provide perspective on the design and execution of molecular imaging research.

Key Words

Molecular targets in valvular diseases; Cardiovascular research; Endocarditis; myocardial fibrosis; valvular calcifications