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Research Program Title	
Tutor	Dr.ssa Carolina GRECO
Scientific Area	05 – Biological Sciences
Gross amount of the fellowship	20.000 Euro
Duration of the fellowship	12 months
Objectives of the research	<p>Mammalian physiology is temporally coordinated by the circadian clock, a cell-autonomous system responsible for daily rhythms in behaviour, physiology and metabolism. Defects in circadian rhythms influence physiology with implications for numerous pathological conditions, including cardiovascular diseases. Heart failure (HF) - the ultimate outcome of many cardiovascular pathologies and a leading cause of morbidity and mortality – is characterized by widespread metabolic, epigenetic and transcriptional changes. The project aims at investigating the impact of ketone body to chromatin signaling on circadian rhythmicity in the failing heart. By integrating high throughput -omic approaches, we will characterize the circadian epigenetic and transcriptional state associated with ketone body metabolism</p>
Activities to be carried out	<p>The candidate will carry out:</p> <ul style="list-style-type: none"> <li>- Isolation and culture of neonatal cardiomyocytes;</li> <li>- In vitro assays for the study of circadian rhythms;</li> <li>- Molecular biology techniques including Real-</li> </ul>

