Role of myokines in cardiovascular diseases and pre-analytical variables affecting their measurements

Myokines, specifically cardiomyokines, have emerged as novel molecular targets that prevent and/or treat certain cardiovascular diseases due to its autocrine, paracrine and/or endocrine effects (1). In this regard, the interest in the field and the number of publications have increased during last years. In this Special Issue, Di Raimondo *et al.* provide an overview of the myokines potentially involved in cardiovascular prevention as well as the role of physical exercise on its expression (2). Moreover, the authors underline the importance of carrying out well-designed cross-sectional and longitudinal studies in order to clarify the implications of exercise-induced myokines in the context of cardiac rehabilitation (2). Importantly, in another review, Lombardi *et al.* also point out the foremost pre-analytical variables, which may affect the measurements of myokines with cardiovascular functions, such as sample collecting and storage (3). Pre-analytical procedures in myokines measurements are critical since exercise induces a wide-range of physiological adaptations in addition to modulating its expression (4). Therefore, the reader will find cutting edge contributions in this Special Issue. It has been a pleasure for me to bring together these important names in the field and I am convinced that this Special Issue will be extremely useful to both experienced and young scientists who are interested in the field of myokines, exercise, health, and disease.

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References

- 1. Itoh N, Ohta H. Pathophysiological roles of FGF signaling in the heart. Front Physiol 2013;4:247.
- 2. Di Raimondo D, Miceli G, Musiari G, et al. New insights about the putative role of myokines in the context of cardiac rehabilitation and secondary cardiovascular prevention. Ann Transl Med 2017;5:300.
- 3. Lombardi G, Sansoni V, Banfi G. Measuring myokines with cardiovascular functions: pre-analytical variables affecting the analytical output. Ann Transl Med 2017;5:299.
- 4. Sanchis-Gomar F, Lippi G. Physical activity—an important preanalytical variable. Biochem Med (Zagreb) 2014;24:68-79.



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Fabian Sanchis-Gomar, MD, PhD^{1,2}

¹The Leon H. Charney Division of Cardiology, New York University School of Medicine, New York, USA; ²Department of Physiology, Faculty of Medicine, University of Valencia and INCLIVA Biomedical Research Institute, Valencia, Spain. (Email: fabian.sanchis@uv.es; fabian.sanchisgomar@nyumc.org) doi: 10.21037/atm.2017.07.31 Conflicts of Interest: The author has no conflicts of interest to declare.

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