Inherited cardiovascular diseases (cardiomyopathies, channelopathies and inherited vascular diseases) are a heterogeneous conjunct of primary diseases usually of genetic origin and familial presentation, which are associated with heart failure and sudden death. Identification of multiple genetic causes for these diseases has opened a new window for their early diagnosis, risk stratification and management. Clinical application of genetics has been limited by the cost and low yield. The irruption of Next Generation Sequencing, has completely changed this scenario by allowing the evaluation in parallel of hundreds or even thousands of genes at an affordable cost. Now the challenge is not the genotyping, but the interpretation of the complex results.

Dr. Monserrat is Chief of the Inherited Cardiovascular Diseases Reference Unit in A Coruña University Hospital and founder and CEO of “HealthInCode”, a service provider in cardiovascular genetics. Dr. Monserrat will review the main aspects related to the application and impact of Next Generation Sequencing in the study of inherited cardiovascular diseases, with a special focus in clinical validation and interpretation of the results.