



AN APPROACH FROM SYSTEMS BIOLOGY TO THE STUDY OF CONGENITAL CARDIAC MALFORMATIONS: IDENTIFICATION OF GENETIC, EPIGENETIC AND ENVIRONMENTAL FACTORS IN HUMAN AND MOUSE CARDIAC TISSUE

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Transcript of the video recorded by Dr Luis A. Pérez Jurado, summarising the results of his investigation that it has proved possible to apply in clinical practice

Our work in the project on heart disease consisted in studying the mechanisms of congenital malformations, studying the actual malformed hearts with genetic approaches. Meanwhile, our colleagues at the Hospital Son Espases in Palma de Mallorca were studying how changes in the diet of pregnant mice could condition different susceptibilities to having foetuses with heart disease. Our data show that it is possible to find the cause in over half of cases of congenital heart anomalies, including inherited causes and causes acquired during development, with immediate implications for the genetic counselling of families and the possibility of preventing it from happening again. There is also the implication on basic knowledge of the mechanism of development of the heart. The studies in mice strengthen the concept of the importance of diet, which factors in the diet modify the expression of genes and

condition different risks of heart disease appearing, for which diet during pregnancy is very important.