





Special Issue Reprint

Leaders in Cardiovascular Research: A Special Issue Dedicated to Professor Adriana Gittenberger-De Groot

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The arterial pole is one of the most complex parts of the heart both in development and disease. It involves the collaboration and orchestration of contributions from the first and second heart fields as well as the neural crest. The precursor cells differentiate into endocardial cushions and putative cardiac valves, the myocardium, and epicardium of the heart, but also into the different layers of the main arterial vessels. These include not only the aorta and the pulmonary trunk but also the pulmonary and coronary arteries, and during development, the arterial duct. Many transcriptional and signaling networks act in timely concert to acquire the proper asymmetric development and function and pressure and flow dynamics. This is not only a human or even mammalian 'enterprise,' but is also taking place in so-called ancestral forms from fish to reptiles, including birds. In humans, it is small wonder that many clinical syndromes may arise when something in this complexity is amiss.

This Special Issue of JCDD contains contributions focussed on the heart fields, congenital cardiac malformations and associated syndromes, with special emphasis on the cardiac outflow tract.

The Issue is devoted to Prof. Dr. Adriana Gittenberger-de Groot, who dedicated her extensive career to research on cardiovascular development.



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