### **Preventing aortic aneurysm growth and rupture in Marfan patients by Resveratrol**

Marfan Syndrome is a connective tissue disorder, caused by a genetic defect in the fibrillin-1 gene. Connective tissue is present in all organs and provides structure and elasticity to organs. Marfan Syndrome patients thus have problems in multiple organs, however most Marfan patients die from severe disease of their main artery; the aorta. For a rare disease, Marfan Syndrome is still relatively frequent; namely 1:4000 individuals. Identification of Marfan Syndrome in patients may occur in childhood or as young adults. Once a patient is identified, they come into the hospital for yearly checkups, where the aorta diameter will be measured to monitor aortic aneurysm growth. Without intervention the aorta is likely to rupture before the age of 40 years. Blood pressure lowering medication may delay aortic disease somewhat, yet aorta surgery cannot be prevented. Hence the need for more effective pharmacotherapeutics. In our recent preclinical research in mice with Marfan Syndrome, we showed that Resveratrol (a food supplement also present in red wine) protected against aortic aneurysm disease. Since Resveratrol is a food supplement it can be readily provided in a clinical setting. Therefore, we will now implement Resveratrol in a group of 100 Marfan patients during one year, to study the effect of Resveratrol on aortic disease. This human study may form the basis for a larger clinical trial with Resveratrol in Marfan patients in a European setting. The current Resveratrol study will be coordinated by the Marfan Research group in the Academic Medical Center in Amsterdam (The Netherlands) by Prof. B.J.M. Mulder (cardiologist), Prof. A.H. Zwinderman (epidemiologist), Dr. M. Groenink (cardiologist en radiologist) en Dr. V. de Waard (biochemist).