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Pulmonary hypertension: estrogens and obesity

27<sup>th</sup> July at 3pm

**Abstract:** Pulmonary arterial hypertension (PAH) is most frequently observed in women. Sex hormones likely play a role in the development of PAH and we will discuss the roles of estrogens and estrogen metabolites. These are elevated in both male and female patients. Estrogen and 16-hydroxyestrogen metabolites have pathogenic effects in the lung, inducing pulmonary vascular remodelling and this may involve oxidative stress. Many PAH patients are obese and evidence suggests this impacts significantly on the pathogenesis of PAH partially through increased estrogen synthesis.



**Short bio:** Mandy obtained her PhD in Pharmacology from the University of Edinburgh in 1985 and then spend a year in the USA and three years in Cambridge before moving to The University of Glasgow in 1989. Mandy joined The University of Strathclyde in 2019. Her research has focused on the role of serotonin in the development of pulmonary arterial hypertension (PAH). As more women get PAH

than men, more recently her work has focused on sex effects and oestrogen metabolism in PAH. She has a BHF programme grant and won the 2017 Reynold Spector Award for Clinical Pharmacology from the American Society for Pharmacology and Experimental Therapeutics (ASPET). Other research awards include a Royal Society Wolfson Research Merit Award and a Royal Society Leverhulme Trust Senior Research Fellowship. She sits n numerous grant funding panels and is a trustee of The Academy of Medical Sciences and The Glasgow Children's Hospital Charity.