

Key of terms to identify data sets and variable in data sets.

Term	Where is it used	Definition
All_immunohistochemical_measures	Data file name	Average area of endothelial and vascular smooth muscle staining from all antigens used on heart tissue.
PE_microvessel_alldays	Data file name	Measures of changes in internal diameter of arteries exposed to different concentrations of phenylephrine (PE) in the microvessels systems
ACh_microvessel_alldays	Data file name	Measures of changes in internal diameter of arteries exposed to different concentrations of acetylcholine (ACh) in the microvessels systems
	Data file name	Artery_morphometric_measures
Animal	Column name in data file	Designates the animal number
Condition	Column name in data file	Designates the condition each animal was in (a= air control and 3D = 3D printing emission exposed)
Day	Column name in data file	The number of days of exposure
Baseline diameter (μm)	Column name in ACh and PE data files	The internal diameter (μm) of a blood vessel in the microvessel chamber prior to treatment with ACh or PE
Internal diameter after pre-constriction (μm)	Column name in ACh data file	The internal diameter (μm) of a blood vessel in the microvessel chamber after preconstruction with PE
%constriction from baseline at start	Column name in ACh data file	The percent constriction induced during preconstruction with PE [(internal diameter after constriction/baseline diameter] *100)
%ACh [-10 to -5.5] (log dose) or %PE [-10 to -5.5] (log dose)	Column name in ACh or PE data files respectively	The percent re-dilation after treatment with a specific dose of ACh [internal diameter after treatment with ACh/internal diameter after preconstruction*100] or percent constriction induced by treatment with a specific dose of PE [internal diameter after treatment with PE/baseline diameter] *100)

Internal diameter (μm)	Column name in data file Artery_morphometric measures	Internal diameter of an artery measured on a hemotoxylin and eosin stained slide
External diameter (μm)	Column name in data file Artery_morphometric measures	External diameter of an artery measured on a hemotoxylin and eosin stained slide
Internal diameter %external diameter	Column name in data file Artery_morphometric measures	(Internal diameter of an artery measured on a hemotoxylin and eosin stained slide/the external diameter of an artery measured on a hemotoxylin and eosin stained slide) *100
Average muscle thickness	Column name in data file Artery_morphometric measures	The average of 4 measures of the thickness of the smooth muscle wall of a cardiac artery (measure from boarder of the arterial lumen to the external edge of the smooth muscle of the artery (μm))
Average area (antigen used for immunohistochemistry) endothelial (μm^2)	Column name in data file Artery_morphometric_measures	Area stained within the internal elastic membrane of an artery minus the area stained in the lumen of an artery (μm^2 or microns squared)= area stained in the endothelium of an artery. Area measures collected using densitometry in ImageJ
Average area (antigen used for immunohistochemistry) VSM (μm^2)	Column name in data file Artery_morphometric_measures	Area stained within the external perimeter of the vascular smooth muscle (VSM) of an artery minus the area stained inside the lumen and inside the elastic membrane of an artery (μm^2 or microns squared)= area stained in the VSM of an artery. Area measures collected using densitometry in ImageJ
Er α , nitrotyrosine, eNOS, iNOS, Ar, VEGF	Abbreviations in the column names in data file Artery_morphometric_measure	Estrogen receptor- α (Er α), endothelial nitric oxide synthase (eNOS), inducible nitric oxide synthase (iNOS), androgen receptor (Ar), vascular endothelial growth factor (VEGF)
Assigned animal number	Column name in heart_PCR_data file	Animal number assigned to samples for PCR in the lab
18s, fold enos, cat, et1 vegf, hif1	Abbreviations in the column names in data file heart_PCR_data file	Ribosomal 18s (housekeeping gene 18s), fold changes in transcript expression from same day control for endothelial nos (enos), catalase (cat), endothelin-1 (et1) vascular endothelial

		growth factor (VEGF) and hypoxia-induced factor-1 (hif1)
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