

**Figure 1.** An analog circuit platform for human circulation system. R: resistance; C: compliance; L: inductance; D: valves; LV: left ventricle; LA: left atrium; RV: right ventricle; RA: right atrium. Full name for the abbreviations used in subscripts: m-mitral valve; a-aortic valve; t-tricuspid valve; p-pulmonary valve; haa-head and arm artery; lna-left neck artery; lca-left clavicular artery; aop-aortic proximal; rula-right upper limb artery; rica-right internal carotid artery; lica-left internal carotid artery; lula-left upper limb artery; sap- systemic proximal arteries; rsv-right subclavian vein; rijv-right internal jugular vein; lijv-left internal jugular vein; lsv-left subclavian vein; sv-systemic veins; vc-vena cava; lpap-left proximal pulmonary artery; rpap-right proximal pulmonary artery; lpad-left distal pulmonary artery; rpad-right distal pulmonary artery; lpv-left pulmonary veins; rpv-right pulmonary veins; c- viscoelastic Resistance. D1, D2, D3, D4, D51, D52, D53, D54, D6, D7, D8, D9, D10, D11, and D12 are diodes for valves.