**Supplementary Table 1. Other Mechanisms in PH in SCD Patients**

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| *Placental Growth Factor (PlGF) & Endothelin-1 (ET-1)* | An angiogenic peptide of the VEGF family associated with erythropoiesis. Associated with increasing plasma endothelin-1 (ET-1) which is a vasoconstrictor leading to elevated pulmonary artery pressures observed in PH in SCD patient populations. |
| *Peroxisome Proliferator Activated Receptor ɣ(PPARɣ)* | PPARɣ is a ligand-activated transcription factor of nuclear hormone receptor observed in inflammation. Its loss leads to increased expression of ET-1, which contributes to PH as mentioned above. |
| *Elevated Vascular Cell Adhesion Molecule 1 (VCAM-1), Intercellular Adhesion Molecule 1 (ICAM-1), E-Selectin* | Reduced NO availability leading to increased soluble adhesion molecule expression which is correlated with the severity of PH in SCD patient populations. |
| *Phosphatidylserine* | Glycerophospholipid molecules normally present on the surface of senescent erythrocytes where they are recognized by macrophages and rapidly removed. Associated with promoting adhesion thereby reducing NO availability leading to endothelial activation seen in PH in SCD patient populations [12, 13]. |
| *Plasma Protein Thrombospondin-1 (TSP-1)* | Associated with activation of CD47 leading to the production of ROS promoting vascular endothelial growth factor signaling pathways leading to inflammation and increase in vascular tone. |
| *Apo-A1* | Low levels of Apo-A1 are associated with dysregulation of the ubiquitin-proteasome pathway which leads to upregulation of inflammatory endothelial response. |
| *Tissue Factor-FX Complex* | Transmembrane receptor for factor VII/VIIa (FVII/FVIIa), expressed by vascular smooth muscle cells, pericytes, adventitial fibroblasts in the vessel wall associated with inducing inflammation seen in PH in SCD patient populations. |
| *Asplenia* | Believed to be associated with hypercoagulability and associated with PH in SCD patient populations. |
| *Polymorphisms in Transforming Growth Factor (TGF)* | Associated with increased likelihood of developing PH in SCD patient populations. |

PH- pulmonary hypertension, SCD- sickle cell disease, VEGF-vascular endothelial growth factor, NO- nitric oxide, ROS- reactive oxygen species