**Supplemental Figure Legends**

Supplemental Figure 1. Pairs of Pathophysiologies. Abbreviations: Impaired Substrate Delivery = Substrate Del; Electrical Signaling Dysfunction = Elec Sign D; Abnormal Growth / Abnormal Cell Cycle = Abn Growth; Capillary / Vascular Dysfunction = Cap/Vasc D; Immune Dysfunction = Immune D; Coagulation Dysfunction = Coagulation D; Mitochondrial Dysfunction = Mit D.

Supplemental Figure 2. Correlations between Pathophysiologies. Abbreviations: Impaired Substrate Delivery = Substrate Del; Electrical Signaling Dysfunction = Elec Sign D; Abnormal Growth / Abnormal Cell Cycle = Abn Growth; Capillary / Vascular Dysfunction = Cap/Vasc D; Immune Dysfunction = Immune D; Coagulation Dysfunction = Coagulation D; Mitochondrial Dysfunction = Mit D.

Supplemental Figure 3. Clustering of Pathophysiologies. In this Figure, the algorithm recursively combines the pathophysiologies into clusters.  The clustering process is seen from bottom to top, with the height of each “branch” reflecting  relative similarities between clusters using the Euclidean distance.  Longer “branches” indicate weaker associations.

Supplemental Figure 4. Pairs of Therapeutic Innovations. Abbreviations: Cell Regeneration = Regeneration; Immune and Inflammatory Modulation = Immune Mod; Extra-corporeal Support and Artificial Organs = ECS & Art Org; Organ Transplant = Transplant; Mechanical Respiratory Support = Mech Resp S; Nutritional Support = Nutrition; Therapeutic Devices = Ther Devices; Monitoring Devices = Monit Devices; Blood and Blood Products = Blood; Renal Replacement and Plasmapheresis = RR & Plasma; Mitochondrial Support = Mit S; Inhaled Respiratory Support = Inhaled Resp S; Suspended Animation = Susp Anim.

Supplemental Figure 5. Correlations Between Therapeutic Innovations. Abbreviations: Cell Regeneration = Regeneration; Immune and Inflammatory Modulation = Immune Mod; Extra-corporeal Support and Artificial Organs = ECS & Art Org; Organ Transplant = Transplant; Mechanical Respiratory Support = Mech Resp S; Nutritional Support = Nutrition; Therapeutic Devices = Ther Devices; Monitoring Devices = Monit Devices; Blood and Blood Products = Blood; Renal Replacement and Plasmapheresis = RR & Plasma; Mitochondrial Support = Mit S; Inhaled Respiratory Support = Inhaled Resp S; Suspended Animation = Susp Anim.

Supplemental Figure 6. Clustering of Therapeutic Innovations. In this Figure, the algorithm recursively combines the pathophysiologies into clusters.  The clustering process is seen from bottom to top, with the height of each “branch” reflecting  relative similarities between clusters using the Euclidean distance.  Longer “branches” indicate weaker associations.  Abbreviations: Cell Regeneration = Regeneration; Immune and Inflammatory Modulation = Immune Mod; Extra-corporeal Support and Artificial Organs = ECS & Art Org; Organ Transplant = Transplant; Mechanical Respiratory Support = Mech Resp S; Nutritional Support = Nutrition; Therapeutic Devices = Ther Devices; Monitoring Devices = Monit Devices; Blood and Blood Products = Blood; Renal Replacement and Plasmapheresis = RR & Plasma; Mitochondrial Support = Mit S; Inhaled Respiratory Support = Inhaled Resp S; Suspended Animation = Susp Anim.