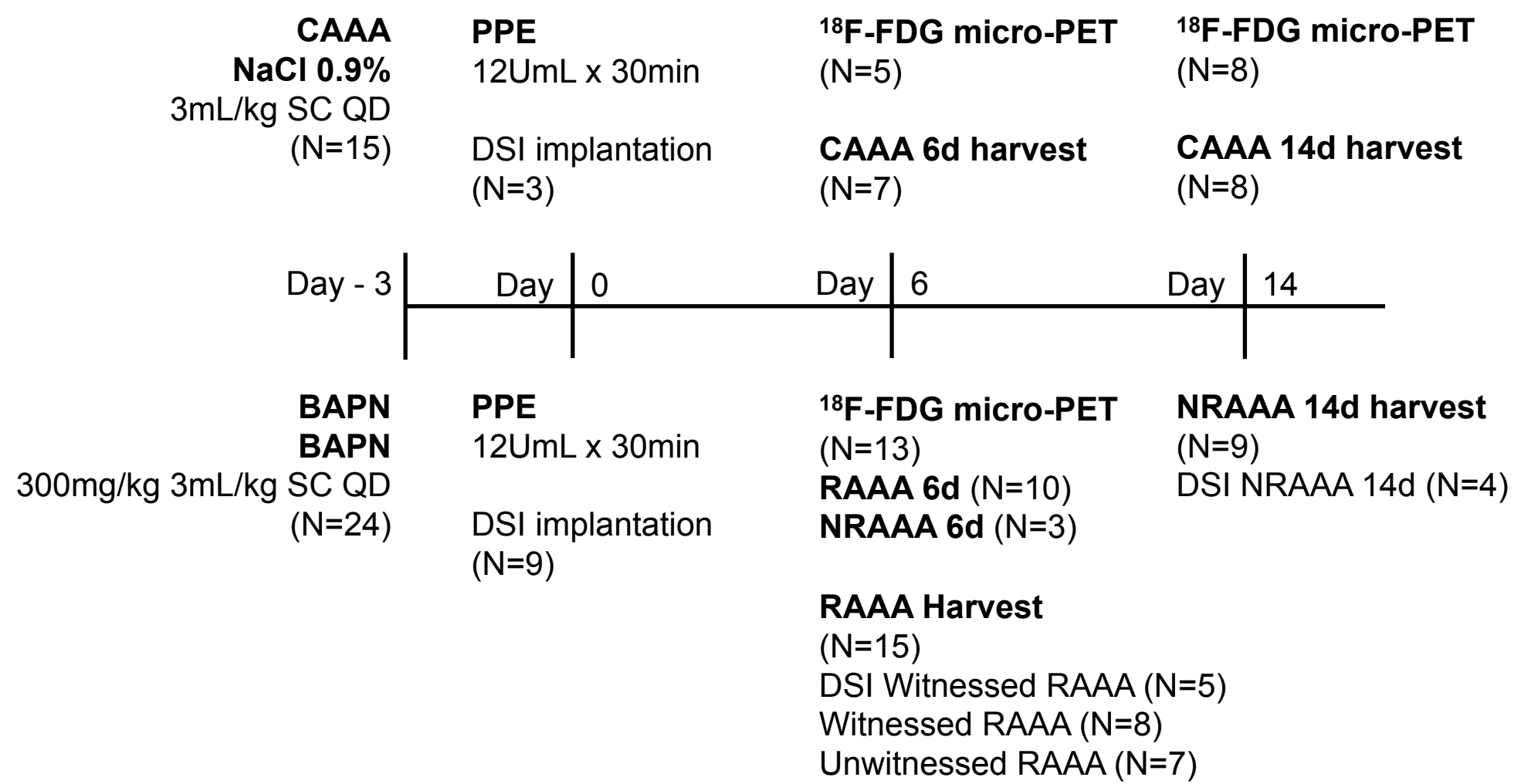

Supplemental Figure 1. Experimental design and allocation of animals. All animals underwent exposure to porcine pancreatic elastase (PPE) for abdominal aortic aneurysm (AAA) development. Negative control AAA (CAAA) animals underwent normal saline (0.9% NaCl) administration subcutaneously (SC) for 3 days prior to PPE exposure and daily thereafter. A subset of CAAA animals was harvested 6 days post PPE exposure (CAAA 6d), and another subset was harvested 14 days post PPE exposure (CAAA 14d). Animals stimulated to rupture with β-aminoprionitrile (BAPN) underwent BAPN administration SC for 3 days prior to PPE exposure and daily thereafter. A subset of the CAAA and BAPN animals underwent implantation of Data Sciences International (DSI) telemetry probes for heart rate and blood pressure monitoring to provide an alert regarding the process of AAA rupture. Those animals that ruptured (RAAA) and those animals that did not rupture over the 14 days post PPE exposure (positive control, NRAAA 14d) were harvested for comparison. Subsets of CAAA animals underwent ^{18}F-FDG micro-positron emission tomography (microPET) at 6 and 14 days post PPE exposure, and a subset of BAPN exposed animals underwent ^{18}F-FDG microPET imaging 6 days post PPE exposure, with a retrospective identification of those RAAA 6d and NRAAA 6d animals that were imaged with ^{18}F-FDG microPET. Harvested tissue was utilized for immunohistochemical and molecular studies; only witnessed RAAA tissue was utilized for analysis.