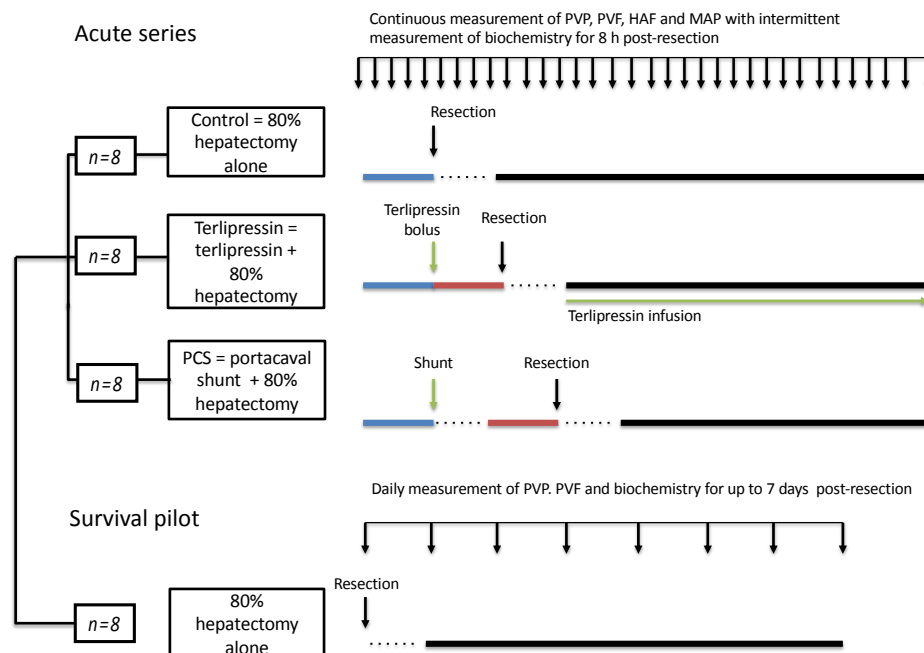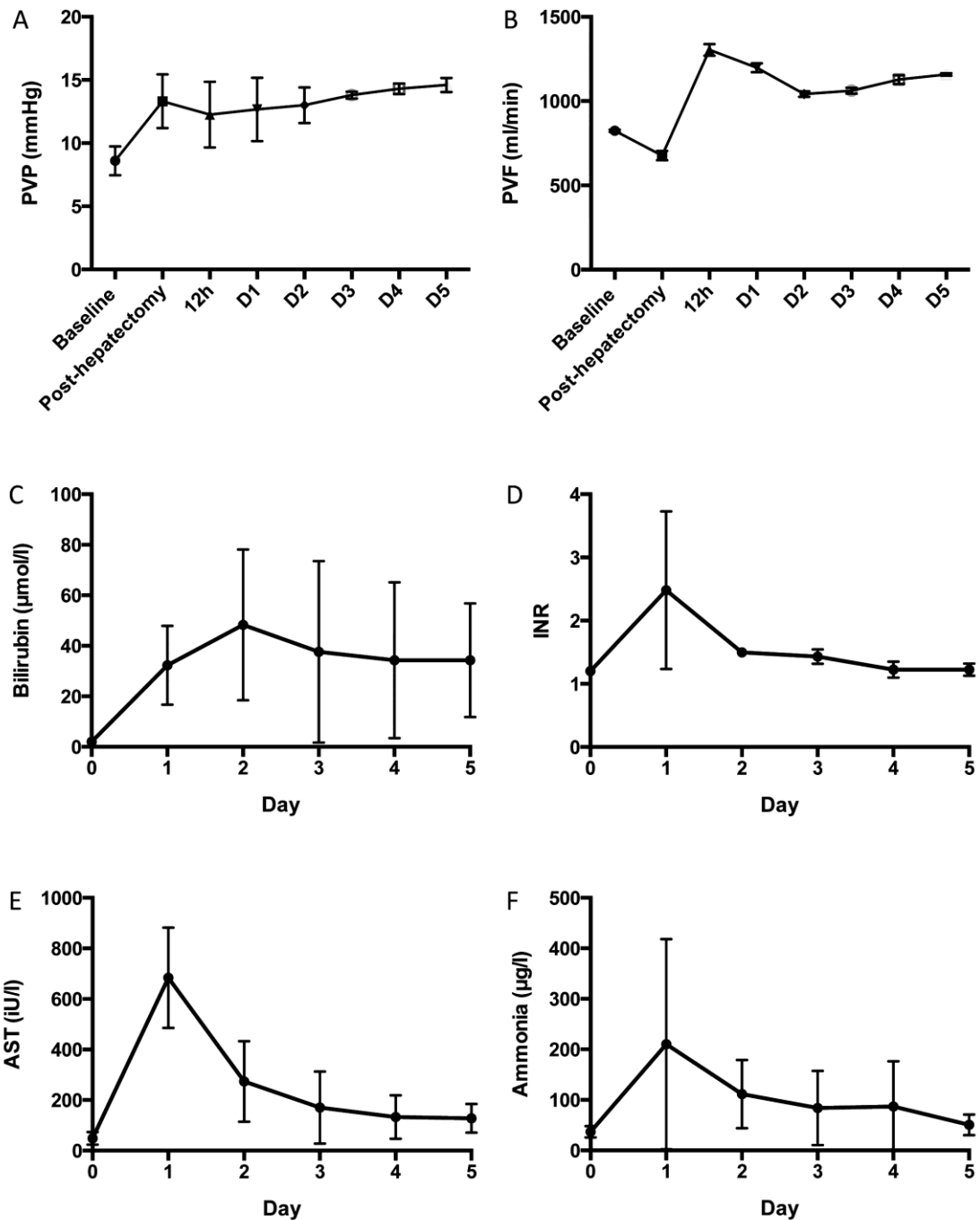**Supplementary data**

Supplementary Figure 1: The study was undertaken in 3 phases. An acute pilot (not shown) and an acute terminal anesthetic series and a survival pilot. In the acute series there were 3 groups with 8 pigs per group. Group 1 (control) underwent 80% hepatectomy alone, group 2 (terlipressin) received terlipressin + 80% hepatectomy and group 3 (PCS) underwent direct portacaval shunting + 80% hepatectomy. All pigs were maintained under terminal anesthesia for up to 8 hours post-hepatectomy. Portal venous pressure (PVP), portal venous flow (PVF), hepatic artery flow (HAF) and mean arterial pressure (MAP) were recorded continuously. Blood samples (hourly) and liver biopsies (2 hourly) were collected for the duration and at termination of the study. In the survival pilot 8 pigs underwent 80% hepatectomy alone, were maintained for up to 7 days and underwent daily blood sampling and PVP and PVF measurement.

Supplementary Figure 2: The effects of 80% hepatectomy on liver hemodynamics and biochemistry in the survival pilot study. A: portal venous pressure (PVP), B: portal venous flow (PVF), C: serum bilirubin, D: International Normalized Ratio (INR), E: serum aspartate transaminase (AST) and F: plasma ammonia were measured daily up to 5 days following 80% hepatectomy. Values represent mean ± standard deviation, n=8 per group.

Supplementary Table 1: Table of p values calculated by ANOVA for representative 10 min intervals of portal venous pressure for hepatectomy (control) *vs.* terlipressin and hepatectomy and for hepatectomy (control) *vs.* portacaval shunt and hepatectomy: immediately post-hepatectomy (T_0); 0-1 h; 1-2 h; 2-3 h; 3-4 h; 4-5 h; 5-6 h; 6-7 h; and 7-8 h post-hepatectomy.

Portal venous pressure interval	Control *vs.* terlipressin and hepatectomy	Control *vs.* portacaval shunt and hepatectomy
T_0	0.061	0.034
0-1 h	0.046	0.025
1-2 h	0.005	0.055
2-3 h	0.012	0.028
3-4 h	0.007	0.017
4-5 h	0.005	0.287
5-6 h	0.011	0.156
6-7 h	0.017	0.287
7-8 h	0.024	0.178

Supplementary Table 2: Table of p values calculated by ANOVA for representative 10 min intervals of portal venous flow for hepatectomy (control) *vs.* terlipressin and hepatectomy and for hepatectomy (control) *vs.* portacaval shunt and hepatectomy: immediately post-hepatectomy (T_0); 0-1 h; 1-2 h; 2-3 h; 3-4 h; 4-5 h; 5-6 h; 6-7 h; and 7-8 h post-hepatectomy.

Portal venous flow interval	Control *vs.* terlipressin and hepatectomy	Control *vs.* portacaval shunt and hepatectomy
T_0	0.0006	0.0062
0-1 h	<0.0001	0.0022
1-2 h	0.0005	0.0019
2-3 h	0.0007	0.0015
3-4 h	0.0055	0.0020
4-5 h	0.0069	0.0037
5-6 h	0.0025	0.0045
6-7 h	0.0110	0.0037
7-8 h	0.0005	0.0029

Supplementary Table 3: Table of p values calculated by ANOVA for representative 10 min intervals of hepatic artery flow for hepatectomy (control) *vs.* terlipressin and hepatectomy and for hepatectomy (control) *vs.* portacaval shunt and hepatectomy: immediately post-hepatectomy (T_0); 0-1 h; 1-2 h; 2-3 h; 3-4 h; 4-5 h; 5-6 h; 6-7 h; and 7-8 h post-hepatectomy.

Hepatic artery flow interval	Control *vs.* terlipressin and hepatectomy	Control *vs.* portacaval shunt and hepatectomy
T_0	0.309	0.228
0-1 hour	0.092	0.745
1-2 hour	0.026	0.246
2-3 hour	0.023	0.661
3-4 hour	0.009	0.783
4-5 hour	0.005	0.919
5-6 hour	0.006	0.793
6-7 hour	0.046	0.228
7-8 hour	0.534	0.254
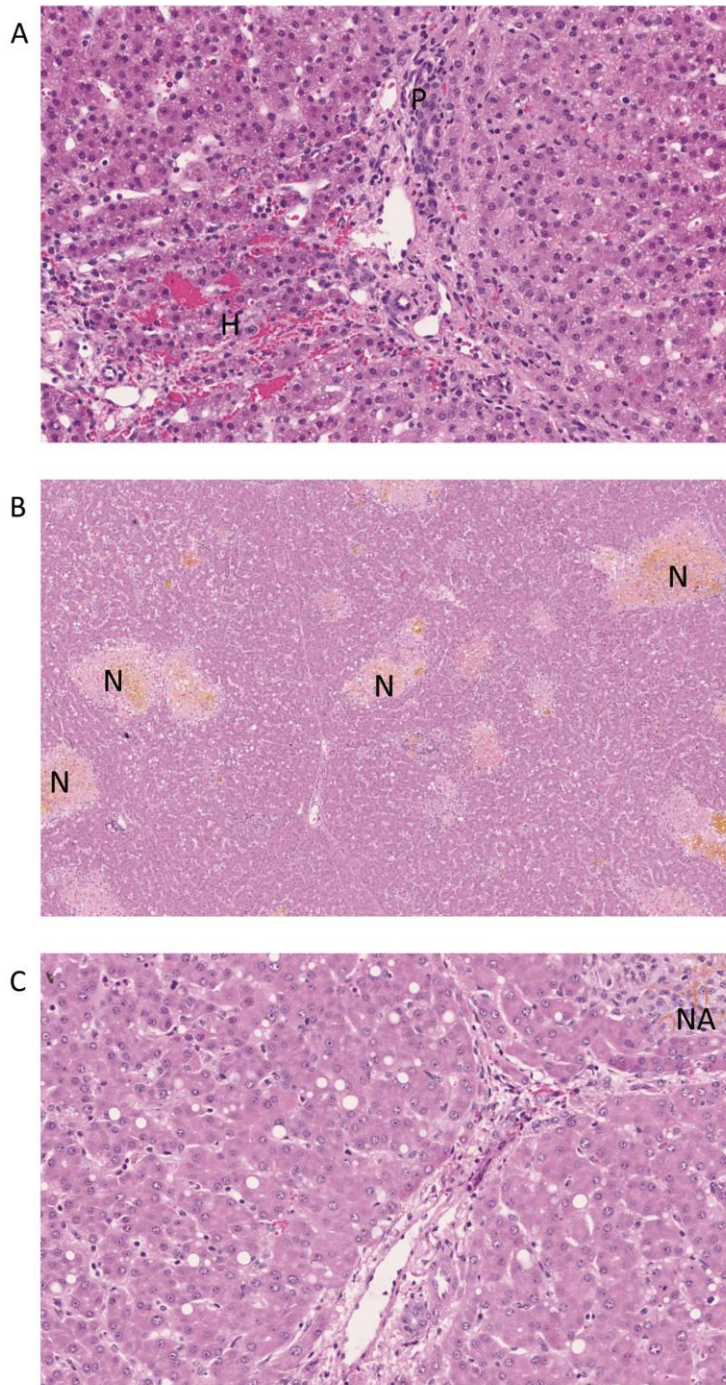
Supplementary Figure 3: Hematoxylin and eosin (H&E) staining was undertaken to characterize liver parenchymal injury following 80% hepatectomy in the acute series and survival pilot. (A) H&E × 20 of pig liver 6 hours following 80% hepatectomy alone demonstrating mild edema of portal tracts (P) and fresh hemorrhage into portal tracts and periportal liver cell plates (H). (B) H&E × 5 of pig liver 7 days following 80% hepatectomy alone demonstrating islands of hepatocellular necrosis with bile impregnation (N). (C) H&E × 20 of pig liver 7 days following 80% hepatectomy alone demonstrating a normal portal tract, and mild hepatocyte steatosis. The edge of a necrotic area (NA) is present at the top right corner.