

SUPPLEMENTAL MATERIAL

Supplemental Table 1. University of Chicago Cohort

| | University of Chicago Cohort | |
|----------------------------------|------------------------------|--------------|
| | VR-PAH (n=5) | VN-PAH (n=6) |
| Age (years) | 35 ± 10 | 44 ± 14 |
| Sex (m/f) | 0/5 | 2/4 |
| Follow up (years) | 12 ± 10 | 11 ± 10 |
| Baseline | | |
| mPAP (mmHg) | 51 ± 8 | 52 ± 8 |
| CO (L/min) | 5 ± 1 | 4 ± 1 |
| PVR (Wood Units) | 11 ± 4 | 14 ± 4 |
| PVR after adenosine (Wood Units) | 3 ± 1 | 9 ± 4 |

Supplemental Table 2.

| Gene Name | Control (n=3) | VN-PAH 1 (n=13) | VD-PAH 1 (n=8) | VN-PAH 2 (n=6) | VD-PAH 2 (n=5) |
|-----------|-------------------|--------------------|-------------------|-------------------|-------------------|
| DSG2 | -7.984 (0.287) | -6.639 (0.786) | -8.201 (0.354) | -7.825 (0.826) | -9.311 (0.445) |
| EPDR1 | -8.519 (0.517) | -5.232 (1.631) | -8.492 (0.881) | -8.601 (0.936) | -8.375 (0.985) |
| SCD5 | -4.961 (0.893) | -1.197 (1.880) | -5.060 (0.855) | -3.938 (0.743) | -4.220 (0.355) |
| P2RY5 | -9.393 (0.931) | -4.861 (2.548) | -9.877 (0.571) | -9.800 (0.663) | -6.135 (0.284) |
| RHOQ | 2.541 (0.296) | 4.563 (1.193) | 2.243 (0.486) | 3.050 (0.497) | 2.349 (0.184) |
| UCHL1 | -8.283 (1.058) | -5.548 (1.394) | -8.173 (0.814) | -6.988 (0.645) | -8.052 (0.445) |
| TPD52 | -0.080 (0.478) | 0.4360 (0.558) | -0.314 (0.333) | -0.825 (0.362) | -0.729 (0.247) |
| MGAT5 | 0.296 (0.362) | -0.987 (1.148) | 0.9624 (0.531) | 0.419 (0.198) | 0.527 (0.268) |
| ZNF652 | 1.180 (0.627) | 3.895 (1.621) | 1.416 (0.713) | 3.251 (1.216) | 2.085 (0.313) |
| RALGPS2 | 0.795 (0.145) | -0.934 (1.178) | 0.958 (0.697) | 0.138 (0.320) | 0.175 (0.399) |
| MKLN1 | 0.564 (0.416) | 3.593 (2.000) | 0.464 (0.645) | 1.182 (0.424) | 0.948 (0.286) |
| RAPGEF2 | -0.760 (0.367) | -2.697 (1.579) | -0.927 (1.112) | -1.257 (0.597) | -0.750 (0.213) |
| PIAS1 | 2.077 (0.208) | 2.843 (0.936) | 1.611 (0.547) | 2.253 (0.567) | 1.988 (0.278) |

Data are presented as mean (\pm SD) expression level of gene cycle number relative to HPRT.