

Supplemental Table 1. Clinical characteristics of ACVD and MMD patients and healthy controls.

| | MMD | ACVD |
|--------------------|-------------------------|-------------------------|
| Number | 24 | 13 |
| Age | 36 ± 11.8 | 56 ± 9.1 |
| Sex | 18 f (75%) 6 m (25%) | 3 f (23%) 10 m (67%) |
| NIHSS | 1.1 ± 0.4 | 1.1 ± 1.1 |
| Statins (%) | 3 (13%) | 8 (62%) |

Abbreviations: ACVD = atherosclerotic cerebrovascular disease; MMD = Moyamoya disease; f = female; m = male

Supplemental Table 2. MMD serum-mediated effects on the gene expression of barrier-stabilizing and angiogenic molecules in cerebrovascular cENDs and non-brain ECs, MyEND cells.

| gene name | cEND cells (relative expression ACVD/MMD)* | MyEND cells (relative expression ACVD/MMD) |
|-------------|--|--|
| ang-1 | 0.5 ± 0.1 (ns) | 0.8 ± 0.2 (ns) |
| ang-2 | 4.5 ± 1.5 (****) | 0.9 ± 0.3 (ns) |
| tie-2 | 1.3 ± 0.4 (ns) | 0.8 ± 0.1 (ns) |
| MMP-9 | 6.5 ± 1.5 (****) | 0.9 ± 0.2 (ns) |
| VEGF | 5.0 ± 1.7 (****) | 1.0 ± 0.2 (ns) |
| PDGFβ | 0.7 ± 0.2 (*) | 0.9 ± 0.2 (ns) |
| dll4 | 0.6 ± 0.2 (**) | 1.1 ± 0.2 (ns) |
| notch1 | 3.6 ± 1.4 (**) | 1.4 ± 0.6 (ns) |
| jag1 | 1.2 ± 0.4 (*) | 1.4 ± 0.3 (ns) |
| TGF-β1 | 1.4 ± 0.2 (***) | 0.9 ± 1.2 (ns) |
| claudin-1 | 0.6 ± 0.2 (**) | 1.4 ± 0.3 (ns) |
| claudin-5 | 0.7 ± 0.1 (***) | 1.2 ± 0.2 (ns) |
| occludin | 0.8 ± 0.1 (***) | 0.9 ± 0.4 (ns) |
| tricellulin | 1.0 ± 0.4 (ns) | 0.8 ± 0.2 (ns) |
| VE-cadherin | 0.7 ± 0.1 (***) | 1.1 ± 0.2 (ns) |
| ZO-1 | 0.4 ± 0.2 (***) | 0.9 ± 0.1 (ns) |

Abbreviations: ang-1 = angiotensin-1; ang-2 = angiotensin-2; MMP-9 = matrix metalloproteinase-9; VEGF = vascular-endothelial growth factor; PDGFβ = platelet-derived growth factor β; dll4 = delta-like 4; TGF-β1 = transforming growth factor-β1; VE-cadherin = vascular-endothelial cadherin; ZO-1 = zonula occludens-1. Statistical significance was evaluated using One-Way ANOVA indicating *p<0.05, **p<0.01 ***p<0.001 versus ACVD serum incubated cells, not significant (ns). Values are means ±SEM, (n=3 independent experiments each including 5 different patient serum per group).