**Decision letter**

...

**Author response**

...

**Author response table 1.**

<Author response table 1 title/legend>InterRBC-PO2 and EATs dependence on the size of the selection window. The measurements were acquired in 373 capillaries in n = 7 awake mice. Data are expressed as mean±SEM.</Author response table 1 title/legend>

|  |  |  |
| --- | --- | --- |
| Selection window size | InterRBC-PO2 (mmHg) | EATs (mmHg) |
| 40% | 38.0±3.7 | 12.0±1.7 |
| 30% | 37.7±3.7 | 12.2±1.7 |
| 20% | 37.4±3.7 | 12.4±1.8 |
| 10% | 37.0±3.6 | 12.7±1.8 |

...

**Author response table 2.**

<Author response table 2 title/legend>Measurement information for the main analysis in Figures 2-7.</Author response table 2 title/legend>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameters** | **Depth** | **Numbers of samples/mice** | | |
| **Capillaries** | **Arterioles** | **Venules** |
| **Mean-PO2** | 0-600 µm | 978/15 | 11/7 | 14/7 |
| **RBC Flux** | 0-600 µm | 978/15 | N.A. | N.A. |
| **Temporal Fluctuation** | 0-600 µm | 373/7 | N.A. | N.A. |
| **EATs** | 0-600 µm | 373/7 | N.A. | N.A. |
| **Branching Orders** | 0-300 µm | 97/5 | N.A. | N.A. |