**Supplemental Information**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ∆mean (meanHC-meanLC) | SD | T | df | 95% CIlower | 95%CIupper | Two-sided p-value | Effect sized |
| BLCB | -3.29 | 11.27 | -0.771 | 6 | -13.71 | 7.15 | .470 | .39 |
| BLISF | 8.80 | 8.16 | 2.409 | 4 | -1.34 | 18.94 | .074 | 1.12 |
| AUCCB | -239.17 | 971.95 | -.603 | 5 | -1259.16 | 780.82 | .573 | .28 |
| AUCISF | 1714.00 | 732.07 | 4.683 | 3 | 549.11 | 2878.89 | .018 | 1.62 |

Suppl. 1 Parametric test analysis of R/Fast comparing HC and LC, respectively considering BL and AUC.

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|  | MARD ± SD |
| HC\_R/Fast | 6.56 ± 5.56 |
| LC\_R/Fast | 11.39 ± 6.25 |

Suppl. 2 MARD ± SD of HC\_R/Fast and LC\_R/Fast.

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Suppl. 3 Mean CB and ISF glucose concentrations including SD (solid line and positive error indication reflecting SD = CB; dashed line and negative error indication reflecting SD = ISF).

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Suppl. 4 Systematic measurement difference of CB and ISF glucose concentration by Bland-Altman plot showing mean difference and their 95% confidence interval as lower and upper limit of agreement.

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|  | ∆mean (meanHC-meanLC) | SD | T\* | df | 95% CIlower | 95%CIupper | Two-sided p-value | Effect sized\* |
| BLCB | -.60 | 7.69 | -.247 | 9 | -6.10 | 4.90 | .811 | .04 |
| BLISF | .00 | 8.54 | -.000 | 9 | -6.11 | 6.11 | 1.000 | .00 |
| PEAKCB | 3.00 | 19.20 | .469 | 8 | -11.76 | 17.76 | .652 | .12 |
| PEAKISF | 4.14  | 15.89 | .690 | 6 | -10.55 | 18.84 | .516 | .23 |
| AUCCB | 50.63 | 1042.89 | .137 | 7 | -821.25 | 922.50 | .895 | .05 |
| AUCISF |  |  | -1.461 |  |  |  | .144 | .85 |

Suppl. 5 Parametric and non-parametric test analysis of R/Glc comparing HC and LC, respectively considering BL, PEAK and AUC. \*As for AUCISF non-parametric test was performed, z-value instead of t-value and Pearson’s r instead of Cohen’s d are displayed.

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| HC\_R/Glc |
|  | BL | 0 | 5 | 10 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 |
| CB | 87±5 | 92±11 | 113±21 | 130±20 | 146±22 | 177±24 | 166±22 | 143±22 | 114±30 | 99±27 | 79±17 | 74±14 |
| ISF | 78±12 | 76±13 | 82±14 | 94±17 | 115±23 | 157±21 | 158±22 | 125±25 | 94±22 | 80±21 | 72±13 | 68±16 |
| LC\_R/Glc |
|  | BL | 0 | 5 | 10 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 |
| CB | 90±16 | 95±16 | 107±23 | 134±18 | 157±17 | 179±28 | 155±25 | 137±23 | 116±22 | 98±20 | 85±20 | 74±18 |
| ISF | 82±15 | 81±9 | 83±13 | 96±20 | 119±22 | 159±25 | 141±30 | 113±24 | 97±23 | 83±19 | 77±19 | 67±16 |
| 65/Glc |
|  | BL | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| CB | 90±8 | 93±9 | 138±17 | 169±17 | 165±26 | 101±15 | 88±20 | 89±16 | 86±16 | 88±19 | 82±19 |
| ISF | 80±7 | 80±6 | 97±9 | 135±25 | 160±26 | 152±20 | 114±40 | 89±15 | 82±18 | 85±22 | 84±21 |
| 85/Glc |
|  | BL | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| CB | 90±6 | 96±9 | 131±14 | 166±10 | 167±23 | 111±26 | 90±23 | 92±20 | 91±16 | 95±22 | 94±19 |
| ISF | 85±6 | 85±5 | 102±13 | 137±15 | 162±19 | 157±28 | 106±38 | 89±18 | 91±13 | 98±21 | 106±26 |

Suppl. 6 Mean ± SD of CB and ISF glucose concentrations over time course of data sampling.

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|  | MARD ± SD [%] |
| HC\_R/Glc | 16.73 ± 10.49 |
| LC\_R/Glc | 16.88 ± 8.71  |
| 65/Glc | 22.32 ± 24.10 |
| 85/Glc | 18.19 ± 16.51 |

Suppl. 7 MARD ± SD of R/Glc, MC\_65/Glc and MC\_85/Glc.