

VFA R1 Analysis (Using Output from VirtualScopics QIBA Code)

No Correction

| Phantom ROI | VIF     |      | Rotation 1 |      | Rotation 2 |      | Rotation 3 |      | Ave Across Rotations |            |      |       |
|-------------|---------|------|------------|------|------------|------|------------|------|----------------------|------------|------|-------|
|             | R1 (/s) | M0   | R1 (/s)    | M0   | R1 (/s)    | M0   | R1 (/s)    | M0   | R1 (/s)              | Stdev (/s) | M0   | Stdev |
| 1           | 0.95    | 3238 | 2.03       | 1950 | 1.02       | 4661 | 1.43       | 3730 | 1.49                 | 0.51       | 3447 | 1378  |
| 2           | 2.55    | 3693 | 1.62       | 3636 | 1.85       | 4331 | 1.25       | 3999 | 1.57                 | 0.30       | 3989 | 348   |
| 3           | 6.25    | 4373 | 1.71       | 3856 | 2.81       | 3329 | 1.82       | 3028 | 2.11                 | 0.61       | 3405 | 419   |
| 4           | 12.49   | 4796 | 2.69       | 4755 | 2.27       | 4253 | 4.26       | 2101 | 3.08                 | 1.05       | 3703 | 1410  |
| 5           | 19.22   | 4276 | 5.67       | 3145 | 3.28       | 2845 | 5.04       | 3036 | 4.67                 | 1.24       | 3009 | 152   |
| 6           | 26.82   | 4303 | 5.20       | 3985 | 7.02       | 2580 | 4.72       | 3374 | 5.65                 | 1.21       | 3313 | 705   |
| 7           | 33.43   | 3773 | 6.32       | 3160 | 11.81      | 2322 | 6.72       | 4800 | 8.28                 | 3.06       | 3427 | 1260  |
| 8           | 46.61   | 3120 | 11.75      | 2928 | 10.25      | 3534 | 15.08      | 3493 | 12.36                | 2.47       | 3318 | 339   |
| Stdev M0:   | 588     |      | 835        |      | 870        |      | 791        |      | 290                  |            |      |       |

| Actual R1 (/s) |        | Average R1 (/s) |        | Difference R1 (/s) |        |
|----------------|--------|-----------------|--------|--------------------|--------|
| VIF            | Tissue | VIF             | Tissue | VIF                | Tissue |
| 1.05           | 0.97   | 1.00            | 1.23   | -0.100             | 0.524  |
| 2.92           | 1.37   | 2.74            | 1.47   | -0.378             | 0.205  |
| 6.86           | 1.93   | 6.55            | 2.02   | -0.618             | 0.177  |
| 11.86          | 2.73   | 12.18           | 2.90   | 0.630              | 0.341  |
| 17.86          | 3.87   | 18.54           | 4.27   | 1.365              | 0.800  |
| 24.88          | 5.47   | 25.85           | 5.56   | 1.947              | 0.180  |
| 32.89          | 7.73   | 33.16           | 8.01   | 0.540              | 0.551  |
| 41.84          | 10.94  | 44.23           | 11.65  | 4.772              | 1.419  |

Limits of agreement: 3.42 0.83

With Correction

| Phantom ROI | VIF     |      | Rotation 1 |      | Rotation 2 |      | Rotation 3 |      | Ave Across Rotations |            |      |       |
|-------------|---------|------|------------|------|------------|------|------------|------|----------------------|------------|------|-------|
|             | R1 (/s) | M0   | R1 (/s)    | M0   | R1 (/s)    | M0   | R1 (/s)    | M0   | R1 (/s)              | Stdev (/s) | M0   | Stdev |
| 1           | 0.95    | 3977 | 2.04       | 2007 | 1.01       | 3636 | 1.42       | 3254 | 1.49                 | 0.51       | 2966 | 852   |
| 2           | 2.55    | 4048 | 1.62       | 2907 | 1.85       | 3283 | 1.24       | 3527 | 1.57                 | 0.30       | 3239 | 312   |
| 3           | 6.25    | 4228 | 1.71       | 3396 | 2.81       | 2890 | 1.81       | 3031 | 2.11                 | 0.61       | 3106 | 261   |
| 4           | 12.52   | 4251 | 2.69       | 3586 | 2.27       | 3620 | 4.28       | 2066 | 3.08                 | 1.06       | 3091 | 887   |
| 5           | 19.27   | 4163 | 5.69       | 2691 | 3.29       | 3099 | 5.06       | 2483 | 4.68                 | 1.25       | 2758 | 313   |
| 6           | 26.91   | 4131 | 5.21       | 3473 | 7.04       | 2380 | 4.73       | 3185 | 5.66                 | 1.22       | 3013 | 567   |
| 7           | 33.56   | 3940 | 6.34       | 3198 | 11.89      | 2139 | 6.73       | 3603 | 8.32                 | 3.10       | 2980 | 756   |
| 8           | 46.75   | 3628 | 11.78      | 2713 | 10.27      | 3041 | 15.14      | 2770 | 12.40                | 2.49       | 2841 | 175   |
| Stdev M0:   | 202     |      | 526        |      | 537        |      | 525        |      | 152                  |            |      |       |

| Actual R1 (/s) |        | Average R1 (/s) |        | Difference R1 (/s) |        |
|----------------|--------|-----------------|--------|--------------------|--------|
| VIF            | Tissue | VIF             | Tissue | VIF                | Tissue |
| 1.05           | 0.97   | 1.00            | 1.23   | -0.104             | 0.525  |
| 2.92           | 1.37   | 2.74            | 1.47   | -0.378             | 0.203  |
| 6.86           | 1.93   | 6.56            | 2.02   | -0.609             | 0.177  |
| 11.86          | 2.73   | 12.19           | 2.91   | 0.657              | 0.347  |
| 17.86          | 3.87   | 18.56           | 4.27   | 1.410              | 0.812  |
| 24.88          | 5.47   | 25.89           | 5.56   | 2.030              | 0.194  |
| 32.89          | 7.73   | 33.22           | 8.03   | 0.660              | 0.584  |
| 41.84          | 10.94  | 44.30           | 11.67  | 4.909              | 1.456  |

Limits of agreement: 3.51 0.85

