

## DADAM AND MADAM compartmental fit with plasma input

### Nonlinear fitting of regional data

Nonlinear fitting of two-compartment model was done with program fitk2 0.1 and three-compartment model with program fitk4 2.1. Standard deviations and 95% confidence limits were calculated with bootstrap method. Blood volume correction was done to the regional data with program dftcbv 0.2 before fitting. Based on Akaike information criterion (AIC) the three-compartment model fit better in almost all brain region of patient PAGH both in DADAM and MADAM studies. For patient FRGU two-compartment model seemed better based on MADAM study, but based on DADAM study almost half of the brain region fit better with three-compartment model. These differences might due to inaccuracy of plasma data. DV estimates don't differ greatly depending on the model. Though standard deviations are quite high for  $k_3/k_4$  estimates in the three-compartment model fit.

## 1. DADAM

### 1.1. FRGU

```
fitk2 0.1 (c) 2004 by Turku PET Centre
Date:      2004-11-16 23:13:26
Study:     FRGU3
Data file:  FDtis.dft
Plasma file: FDplasma.dft
Blood file:  FDblood.dft
Data range: 0 - 69 min (N=16)
Vb:       1.5 %
Data was not weighted.
```

| Region |              | K1     | K1/k2      | Vb%    | WSS        | AIC        |
|--------|--------------|--------|------------|--------|------------|------------|
| ac     | All          | 0.4503 | 1.0830e+01 | 1.5000 | 1.4318e+03 | 7.6828e+01 |
|        | SD           | 0.0051 | 1.0686e-01 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4414 | 1.0652e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4613 | 1.1085e+01 | 0.0150 | .          | .          |
| ang    | All          | 0.4140 | 1.0382e+01 | 1.5000 | 5.7976e+02 | 6.2363e+01 |
|        | SD           | 0.0032 | 7.0114e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4081 | 1.0251e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4211 | 1.0516e+01 | 0.0150 | .          | .          |
| cau    | All          | 0.4332 | 1.1870e+01 | 1.5000 | 1.7107e+03 | 7.9677e+01 |
|        | SD           | 0.0055 | 1.4164e-01 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4232 | 1.1609e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4436 | 1.2163e+01 | 0.0150 | .          | .          |
| cer    | All          | 0.4151 | 1.0016e+01 | 1.5000 | 6.5715e+02 | 6.4368e+01 |
|        | SD           | 0.0034 | 7.1424e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4086 | 9.8878e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4220 | 1.0175e+01 | 0.0150 | .          | .          |
| dlp    | All          | 0.4441 | 1.0041e+01 | 1.5000 | 1.3388e+03 | 7.5754e+01 |
|        | SD           | 0.0055 | 9.9601e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4333 | 9.8572e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4541 | 1.0221e+01 | 0.0150 | .          | .          |
| gti    | All          | 0.4598 | 1.1136e+01 | 1.5000 | 1.2770e+03 | 7.4998e+01 |
|        | SD           | 0.0053 | 9.7768e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4498 | 1.0946e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4712 | 1.1322e+01 | 0.0150 | .          | .          |
| gtm    | All          | 0.4649 | 1.0864e+01 | 1.5000 | 6.6779e+02 | 6.4625e+01 |
|        | SD           | 0.0039 | 6.8307e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4574 | 1.0727e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.4725 | 1.0989e+01 | 0.0150 | .          | .          |
| gts    | All          | 0.4898 | 1.0146e+01 | 1.5000 | 1.4011e+03 | 7.6482e+01 |
|        | SD           | 0.0055 | 9.0916e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.4804 | 9.9824e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.5011 | 1.0339e+01 | 0.0150 | .          | .          |
| ins    | All          | 0.4630 | 1.1981e+01 | 1.5000 | 1.0585e+03 | 7.1995e+01 |
|        | SD           | 0.0042 | 9.6110e-02 | 0.0000 | .          | .          |

|       |    |     |       |        |            |        |            |            |
|-------|----|-----|-------|--------|------------|--------|------------|------------|
|       | CL | 95% | Lower | 0.4557 | 1.1809e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4727 | 1.2181e+01 | 0.0150 | .          | .          |
| mfc   | .  |     | All   | 0.4489 | 9.8929e+00 | 1.5000 | 7.8023e+02 | 6.7115e+01 |
|       | SD | .   | .     | 0.0037 | 7.5908e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4415 | 9.7435e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4565 | 1.0041e+01 | 0.0150 | .          | .          |
| occ   | .  |     | All   | 0.4570 | 1.0196e+01 | 1.5000 | 1.9387e+03 | 8.1678e+01 |
|       | SD | .   | .     | 0.0064 | 1.1204e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4464 | 9.9774e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4706 | 1.0409e+01 | 0.0150 | .          | .          |
| pc    | .  |     | All   | 0.4610 | 1.1118e+01 | 1.5000 | 1.0698e+03 | 7.2165e+01 |
|       | SD | .   | .     | 0.0045 | 9.2769e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4515 | 1.0958e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4707 | 1.1330e+01 | 0.0150 | .          | .          |
| put   | .  |     | All   | 0.4523 | 1.2644e+01 | 1.5000 | 3.1572e+03 | 8.9481e+01 |
|       | SD | .   | .     | 0.0077 | 1.9146e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4350 | 1.2263e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4660 | 1.3027e+01 | 0.0150 | .          | .          |
| raphe | .  |     | All   | 0.0000 | 1.0002e-05 | 1.5000 | 5.1569e+01 | 2.3648e+01 |
|       | SD | .   | .     | 0.0000 | 3.4307e-08 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.0000 | 9.9928e-06 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.0000 | 1.0069e-05 | 0.0150 | .          | .          |
| smar  | .  |     | All   | 0.4172 | 1.0274e+01 | 1.5000 | 7.3969e+02 | 6.6261e+01 |
|       | SD | .   | .     | 0.0035 | 7.6918e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4110 | 1.0147e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4236 | 1.0457e+01 | 0.0150 | .          | .          |
| tha   | .  |     | All   | 0.3887 | 1.2245e+01 | 1.5000 | 1.6841e+03 | 7.9426e+01 |
|       | SD | .   | .     | 0.0056 | 1.6740e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3768 | 1.1967e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3983 | 1.2572e+01 | 0.0150 | .          | .          |
| wm    | .  |     | All   | 0.1429 | 1.2087e+01 | 1.5000 | 7.2827e+02 | 6.6012e+01 |
|       | SD | .   | .     | 0.0026 | 5.1063e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.1378 | 1.1209e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.1479 | 1.3105e+01 | 0.0150 | .          | .          |
| str   | .  |     | All   | 0.4463 | 1.2411e+01 | 1.5000 | 2.1988e+03 | 8.3692e+01 |
|       | SD | .   | .     | 0.0064 | 1.5763e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4327 | 1.2134e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4576 | 1.2743e+01 | 0.0150 | .          | .          |
| lpi   | .  |     | All   | 0.4146 | 1.0318e+01 | 1.5000 | 6.0392e+02 | 6.3017e+01 |
|       | SD | .   | .     | 0.0032 | 7.0885e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4090 | 1.0193e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4215 | 1.0464e+01 | 0.0150 | .          | .          |
| gt    | .  |     | All   | 0.4718 | 1.0716e+01 | 1.5000 | 9.8166e+02 | 7.0790e+01 |
|       | SD | .   | .     | 0.0047 | 8.0483e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.4630 | 1.0573e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.4824 | 1.0871e+01 | 0.0150 | .          | .          |

fitk4 2.1 (c) 2000-2004 by Turku PET Centre  
Date: 2004-11-16 23:21:04  
Study: FRGU3  
Data file: FDtis.dft  
Plasma file: FDplasma.dft  
Blood file: FDblood.dft  
Data range: 0 - 69 min (N=16)  
Vb: 1.5 %  
Data was not weighted.

| Region |    |     | K1    | K1/k2  | k3     | k3/k4  | DV         | WSS        | AIC        |            |
|--------|----|-----|-------|--------|--------|--------|------------|------------|------------|------------|
| ac     | .  |     | All   | 4.6799 | 0.1080 | 4.4688 | 1.0000e+02 | 1.0908e+01 | 5.5726e+02 | 6.8443e+01 |
|        | SD | .   | .     | 1.3022 | 0.0613 | 0.6060 | 1.4662e+01 | .          | .          | .          |
|        | CL | 95% | Lower | 1.9437 | 0.0917 | 2.3502 | 4.0215e+01 | .          | .          | .          |
|        | CL | 95% | Upper | 5.8805 | 0.2972 | 5.0723 | 1.0637e+02 | .          | .          | .          |
| ang    | .  |     | All   | 0.6557 | 0.2913 | 3.5877 | 3.4777e+01 | 1.0422e+01 | 3.7992e+02 | 6.2314e+01 |
|        | SD | .   | .     | 0.0643 | 0.0072 | 0.5981 | 9.1688e-01 | .          | .          | .          |
|        | CL | 95% | Lower | 0.5390 | 0.2813 | 2.8195 | 3.2572e+01 | .          | .          | .          |
|        | CL | 95% | Upper | 0.7622 | 0.3087 | 4.9527 | 3.6006e+01 | .          | .          | .          |
| cau    | .  |     | All   | 0.5643 | 0.3477 | 5.0000 | 3.3203e+01 | 1.1891e+01 | 1.6744e+03 | 8.6047e+01 |
|        | SD | .   | .     | 0.0936 | 0.3275 | 0.8843 | 6.4052e+00 | .          | .          | .          |
|        | CL | 95% | Lower | 0.4135 | 0.2574 | 3.2212 | 8.4366e+00 | .          | .          | .          |
|        | CL | 95% | Upper | 0.7629 | 1.3077 | 5.6972 | 3.6788e+01 | .          | .          | .          |
| cer    | .  |     | All   | 1.0635 | 0.1312 | 5.0000 | 7.5672e+01 | 1.0061e+01 | 4.1049e+02 | 6.3552e+01 |
|        | SD | .   | .     | 0.3718 | 0.0360 | 0.2868 | 9.8660e+00 | .          | .          | .          |
|        | CL | 95% | Lower | 0.4985 | 0.1159 | 4.2807 | 4.3381e+01 | .          | .          | .          |
|        | CL | 95% | Upper | 1.7404 | 0.2312 | 5.2289 | 8.1768e+01 | .          | .          | .          |
| dlp    | .  |     | All   | 0.7697 | 0.2391 | 4.1268 | 4.1153e+01 | 1.0079e+01 | 1.1147e+03 | 7.9537e+01 |
|        | SD | .   | .     | 0.1591 | 0.0078 | 0.7505 | 1.3625e+00 | .          | .          | .          |

|       |    |     |       |        |         |        |            |            |            |            |
|-------|----|-----|-------|--------|---------|--------|------------|------------|------------|------------|
|       | CL | 95% | Lower | 0.5901 | 0.2253  | 2.9325 | 3.8942e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 1.0954 | 0.2547  | 5.0784 | 4.3526e+01 | .          | .          | .          |
| gti   | .  | .   | All   | 0.7614 | 0.2601  | 4.2015 | 4.1970e+01 | 1.1175e+01 | 1.0680e+03 | 7.8852e+01 |
|       | SD | .   | .     | 0.1314 | 0.0207  | 0.7332 | 2.0373e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.6139 | 0.2460  | 3.0145 | 3.9902e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 1.0570 | 0.2758  | 5.0630 | 4.4106e+01 | .          | .          | .          |
| gtm   | .  | .   | All   | 0.6407 | 0.3159  | 5.0000 | 3.3463e+01 | 1.0886e+01 | 5.9434e+02 | 6.9474e+01 |
|       | SD | .   | .     | 0.0657 | 0.1238  | 0.6108 | 4.9691e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4918 | 0.2736  | 3.8226 | 1.3357e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.7711 | 0.7808  | 5.5520 | 3.5957e+01 | .          | .          | .          |
| gts   | .  | .   | All   | 2.6500 | 0.1161  | 5.0000 | 4.6872e+01 | 1.0205e+01 | 8.1382e+02 | 7.4503e+01 |
|       | SD | .   | .     | 1.3586 | 0.1679  | 0.6129 | 1.6277e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3240 | 0.0816  | 2.7388 | 3.9429e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 4.4876 | 0.2754  | 5.3086 | 9.6194e+01 | .          | .          | .          |
| ins   | .  | .   | All   | 1.7113 | 0.1230  | 5.0000 | 9.6923e+01 | 1.2048e+01 | 5.9874e+02 | 6.9592e+01 |
|       | SD | .   | .     | 0.9307 | 0.6644  | 0.4812 | 1.3374e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3750 | 0.0630  | 4.1753 | 5.8592e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 3.9654 | 0.1627  | 5.2921 | 1.0501e+02 | .          | .          | .          |
| mfc   | .  | .   | All   | 0.7945 | 0.1961  | 5.0000 | 4.609e+01  | 9.9234e+00 | 6.2239e+02 | 7.0212e+01 |
|       | SD | .   | .     | 0.1476 | 0.2156  | 0.4776 | 9.6637e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4776 | 0.1403  | 3.9518 | 1.9939e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 1.0849 | 0.4993  | 5.3768 | 5.5075e+01 | .          | .          | .          |
| occ   | .  | .   | All   | 0.4732 | 9.3605  | 0.0027 | 1.0000e+02 | 9.4541e+02 | 7.8106e+02 | 7.3845e+01 |
|       | SD | .   | .     | 0.0075 | 0.5638  | 0.0357 | 4.8389e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4618 | 8.3837  | 0.0000 | 5.3946e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.4872 | 9.8990  | 0.0160 | 1.5375e+02 | .          | .          | .          |
| pc    | .  | .   | All   | 0.5788 | 0.4151  | 5.0000 | 2.5823e+01 | 1.1135e+01 | 1.0279e+03 | 7.8240e+01 |
|       | SD | .   | .     | 0.0576 | 0.2601  | 0.8268 | 3.7499e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4868 | 0.3524  | 3.4406 | 1.0003e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.7052 | 1.0197  | 5.7244 | 2.7558e+01 | .          | .          | .          |
| put   | .  | .   | All   | 0.4528 | 8.2821  | 5.0000 | 5.2666e-01 | 1.2644e+01 | 3.1573e+03 | 9.6194e+01 |
|       | SD | .   | .     | 0.0256 | 1.0959  | 2.2978 | 2.0794e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4282 | 5.3872  | 2.1942 | 8.4058e-02 | .          | .          | .          |
|       | CL | 95% | Upper | 0.4896 | 10.1185 | 7.1613 | 1.2710e+00 | .          | .          | .          |
| raphe | .  | .   | All   | 0.0000 | 0.0000  | 0.0000 | 2.0938e+01 | 2.1941e-04 | 5.1569e+01 | 3.0362e+01 |
|       | SD | .   | .     | 0.0000 | 0.2622  | 0.1311 | 2.6225e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.0000 | 0.0000  | 0.0000 | 1.8242e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.0000 | 0.2539  | 0.1269 | 2.3476e+01 | .          | .          | .          |
| smar  | .  | .   | All   | 2.0290 | 0.1023  | 4.9762 | 1.0000e+02 | 1.0337e+01 | 2.6530e+02 | 5.6568e+01 |
|       | SD | .   | .     | 0.6361 | 0.0070  | 0.2470 | 5.0740e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.8576 | 0.0993  | 4.4219 | 8.1858e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 3.5542 | 0.1250  | 5.1743 | 1.0201e+02 | .          | .          | .          |
| tha   | .  | .   | All   | 0.3890 | 8.7180  | 5.0000 | 4.0460e-01 | 1.2245e+01 | 1.6842e+03 | 8.6139e+01 |
|       | SD | .   | .     | 0.0126 | 1.3052  | 2.2801 | 8.9834e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3741 | 3.5045  | 2.1923 | 1.1314e-01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.4226 | 10.2671 | 7.1613 | 2.6895e+00 | .          | .          | .          |
| wm    | .  | .   | All   | 0.1429 | 9.3053  | 5.0000 | 3.0059e-01 | 1.2102e+01 | 7.2823e+02 | 7.2725e+01 |
|       | SD | .   | .     | 0.0073 | 2.1235  | 2.1989 | 7.4075e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.1358 | 2.2948  | 2.5565 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.1598 | 10.7537 | 7.5445 | 6.8383e+00 | .          | .          | .          |
| str   | .  | .   | All   | 0.4470 | 8.2226  | 4.0533 | 5.0936e-01 | 1.2411e+01 | 2.1988e+03 | 9.0405e+01 |
|       | SD | .   | .     | 0.0238 | 1.1922  | 2.2987 | 2.1697e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.4266 | 4.7296  | 1.3954 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.4853 | 10.1162 | 6.3666 | 1.4818e+00 | .          | .          | .          |
| lpi   | .  | .   | All   | 0.7229 | 0.2867  | 3.1492 | 3.5166e+01 | 1.0370e+01 | 2.6084e+02 | 5.6297e+01 |
|       | SD | .   | .     | 0.0590 | 0.0049  | 0.3026 | 6.5279e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.6185 | 0.2793  | 2.7009 | 3.3716e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.8282 | 0.2971  | 3.8388 | 3.6162e+01 | .          | .          | .          |
| gt    | .  | .   | All   | 0.8037 | 0.2533  | 4.2449 | 4.1462e+01 | 1.0754e+01 | 7.4593e+02 | 7.3109e+01 |
|       | SD | .   | .     | 0.1253 | 0.0063  | 0.6607 | 1.0521e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.6536 | 0.2436  | 3.2139 | 3.9384e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 1.0575 | 0.2673  | 5.0687 | 4.3279e+01 | .          | .          | .          |

## 1.2. PAGH

fitk2 0.1 (c) 2004 by Turku PET Centre  
Date: 2004-11-17 00:42:16  
Study: PAGH3  
Data file: PDtis.dft  
Plasma file: PDplasma.dft  
Blood file: PDblood.dft  
Data range: 0 - 69 min (N=16)  
Vb: 1.5 %  
Data was not weighted.

| Region | K1 | K1/k2 | Vb% | WSS | AIC |
|--------|----|-------|-----|-----|-----|
|--------|----|-------|-----|-----|-----|

|       |    |           |        |         |        |            |            |
|-------|----|-----------|--------|---------|--------|------------|------------|
| ac    | .  | All       | 0.4803 | 7.9019  | 1.5000 | 7.5716e+03 | 1.0348e+02 |
|       | SD | .         | 0.0151 | 0.2115  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4497 | 7.5003  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.5066 | 8.2897  | 0.0150 | .          | .          |
| ang   | .  | All       | 0.4028 | 6.9499  | 1.5000 | 4.4025e+03 | 9.4800e+01 |
|       | SD | .         | 0.0114 | 0.1608  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3818 | 6.6600  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4257 | 7.2684  | 0.0150 | .          | .          |
| cau   | .  | All       | 0.4039 | 8.6854  | 1.5000 | 5.2710e+03 | 9.7681e+01 |
|       | SD | .         | 0.0116 | 0.2082  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3817 | 8.3451  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4261 | 9.0915  | 0.0150 | .          | .          |
| cer   | .  | All       | 0.4550 | 7.2842  | 1.5000 | 4.9807e+03 | 9.6775e+01 |
|       | SD | .         | 0.0127 | 0.1682  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4318 | 6.9770  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4786 | 7.6331  | 0.0150 | .          | .          |
| dlp   | .  | All       | 0.4562 | 7.4591  | 1.5000 | 7.0601e+03 | 1.0236e+02 |
|       | SD | .         | 0.0153 | 0.2026  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4282 | 7.0939  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4834 | 7.8489  | 0.0150 | .          | .          |
| gti   | .  | All       | 0.3850 | 7.3375  | 1.5000 | 4.9749e+03 | 9.6756e+01 |
|       | SD | .         | 0.0120 | 0.1835  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3648 | 7.0255  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4084 | 7.6921  | 0.0150 | .          | .          |
| gtm   | .  | All       | 0.4539 | 7.9668  | 1.5000 | 5.7459e+03 | 9.9062e+01 |
|       | SD | .         | 0.0131 | 0.1908  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4294 | 7.6175  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4779 | 8.3418  | 0.0150 | .          | .          |
| gts   | .  | All       | 0.4368 | 8.1629  | 1.5000 | 5.7779e+03 | 9.9150e+01 |
|       | SD | .         | 0.0131 | 0.2032  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4130 | 7.7886  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4615 | 8.5646  | 0.0150 | .          | .          |
| ins   | .  | All       | 0.4542 | 8.7884  | 1.5000 | 6.0780e+03 | 9.9960e+01 |
|       | SD | .         | 0.0126 | 0.2088  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4323 | 8.3966  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4778 | 9.2145  | 0.0150 | .          | .          |
| mfc   | .  | All       | 0.4849 | 7.4352  | 1.5000 | 6.5396e+03 | 1.0113e+02 |
|       | SD | .         | 0.0149 | 0.1895  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4559 | 7.0772  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.5121 | 7.8173  | 0.0150 | .          | .          |
| occ   | .  | All       | 0.3833 | 7.3226  | 1.5000 | 5.4968e+03 | 9.8352e+01 |
|       | SD | .         | 0.0126 | 0.1993  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3610 | 6.9665  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4071 | 7.7243  | 0.0150 | .          | .          |
| pc    | .  | All       | 0.4455 | 7.5029  | 1.5000 | 9.1953e+03 | 1.0658e+02 |
|       | SD | .         | 0.0176 | 0.2460  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4115 | 7.0210  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4768 | 7.9615  | 0.0150 | .          | .          |
| put   | .  | All       | 0.3526 | 8.7922  | 1.5000 | 2.2978e+03 | 8.4397e+01 |
|       | SD | .         | 0.0074 | 0.1523  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3411 | 8.5478  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.3683 | 9.1319  | 0.0150 | .          | .          |
| raphe | .  | All       | 0.0000 | 0.0000  | 1.5000 | 3.8951e+01 | 1.9159e+01 |
|       | SD | .         | 0.0000 | 0.0000  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.0000 | 0.0000  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.0000 | 0.0000  | 0.0150 | .          | .          |
| smar  | .  | All       | 0.4299 | 7.3163  | 1.5000 | 6.7246e+03 | 1.0158e+02 |
|       | SD | .         | 0.0146 | 0.2029  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4033 | 6.9688  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4578 | 7.7277  | 0.0150 | .          | .          |
| tha   | .  | All       | 0.4718 | 9.6834  | 1.5000 | 6.0220e+03 | 9.9812e+01 |
|       | SD | .         | 0.0123 | 0.2285  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.4488 | 9.2626  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.4936 | 10.1510 | 0.0150 | .          | .          |
| wm    | .  | All       | 0.1298 | 7.4798  | 1.5000 | 1.3574e+03 | 7.5975e+01 |
|       | SD | .         | 0.0043 | 0.3869  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.1226 | 6.7252  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.1379 | 8.2396  | 0.0150 | .          | .          |
| str   | .  | All       | 0.3697 | 8.7469  | 1.5000 | 2.6305e+03 | 8.6561e+01 |
|       | SD | .         | 0.0078 | 0.1550  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3553 | 8.5038  | 0.0150 | .          | .          |
|       | CL | 95% Upper | 0.3858 | 9.0469  | 0.0150 | .          | .          |
| lpi   | .  | All       | 0.4179 | 7.1644  | 1.5000 | 5.3705e+03 | 9.7980e+01 |
|       | SD | .         | 0.0129 | 0.1787  | 0.0000 | .          | .          |
|       | CL | 95% Lower | 0.3949 | 6.8447  | 0.0150 | .          | .          |

|    |    |     |       |        |        |        |            |            |
|----|----|-----|-------|--------|--------|--------|------------|------------|
| gt | CL | 95% | Upper | 0.4433 | 7.5209 | 0.0150 | .          | .          |
|    | .  | .   | All   | 0.4295 | 7.8496 | 1.5000 | 5.2722e+03 | 9.7685e+01 |
|    | SD | .   | .     | 0.0124 | 0.1874 | 0.0000 | .          | .          |
|    | CL | 95% | Lower | 0.4073 | 7.5147 | 0.0150 | .          | .          |
|    | CL | 95% | Upper | 0.4526 | 8.2142 | 0.0150 | .          | .          |

fitk4 2.1 (c) 2000-2004 by Turku PET Centre  
Date: 2004-11-17 00:57:11  
Study: PAGH3  
Data file: PDTis.dft  
Plasma file: PDplasma.dft  
Blood file: PDblood.dft  
Data range: 0 - 69 min (N=16)  
Vb: 1.5 %  
Data was not weighted.

| Region |    |           | K1     | K1/k2  | k3     | k3/k4      | DV         | WSS        | AIC        |
|--------|----|-----------|--------|--------|--------|------------|------------|------------|------------|
| ac     | .  | All       | 0.5629 | 5.6280 | 0.0234 | 5.6670e-01 | 8.8174e+00 | 1.7624e+03 | 8.6865e+01 |
|        | SD | .         | 0.0227 | 0.5009 | 0.0139 | 9.9134e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.5234 | 4.6605 | 0.0054 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.6158 | 6.4713 | 0.0509 | 1.1148e-01 | .          | .          | .          |
| ang    | .  | All       | 0.7503 | 0.8086 | 0.7684 | 7.7871e+00 | 7.1054e+00 | 1.4848e+03 | 8.4124e+01 |
|        | SD | .         | 0.9774 | 0.6381 | 0.4259 | 7.5436e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.2038 | 0.0777 | 0.1052 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 4.6750 | 2.5669 | 1.7773 | 2.9314e+01 | .          | .          | .          |
| cau    | .  | All       | 0.5320 | 3.3978 | 0.1389 | 1.6785e+00 | 9.1009e+00 | 1.0672e+03 | 7.8839e+01 |
|        | SD | .         | 0.0346 | 0.7152 | 0.0682 | 7.3595e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.4835 | 1.9522 | 0.0456 | 7.9623e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.6208 | 4.7503 | 0.2972 | 3.5551e+00 | .          | .          | .          |
| cer    | .  | All       | 0.5231 | 5.3945 | 0.0210 | 4.8867e-01 | 8.0306e+00 | 8.7664e+02 | 7.5692e+01 |
|        | SD | .         | 0.0141 | 0.3544 | 0.0096 | 7.0333e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.4990 | 4.7174 | 0.0057 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5557 | 6.1966 | 0.0410 | 1.8948e-01 | .          | .          | .          |
| dlp    | .  | All       | 0.5320 | 5.4863 | 0.0179 | 5.8432e-01 | 8.6921e+00 | 1.1272e+03 | 7.9715e+01 |
|        | SD | .         | 0.0158 | 0.3422 | 0.0075 | 7.0375e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.5072 | 4.8714 | 0.0062 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5660 | 6.1223 | 0.0340 | 7.2287e-01 | .          | .          | .          |
| gti    | .  | All       | 0.4706 | 4.2870 | 0.0525 | 8.3929e-01 | 7.8851e+00 | 1.1566e+03 | 8.0127e+01 |
|        | SD | .         | 0.0202 | 0.5757 | 0.0288 | 2.5395e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.4345 | 3.1319 | 0.0146 | 4.7950e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.5129 | 5.3727 | 0.1249 | 1.4211e+00 | .          | .          | .          |
| gtm    | .  | All       | 0.5266 | 5.6659 | 0.0243 | 5.5131e-01 | 8.7896e+00 | 1.1933e+03 | 8.0626e+01 |
|        | SD | .         | 0.0177 | 0.4798 | 0.0133 | 7.0283e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.4986 | 4.5845 | 0.0060 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5705 | 6.4765 | 0.0560 | 3.6362e-01 | .          | .          | .          |
| gts    | .  | All       | 0.5203 | 5.3115 | 0.0344 | 6.8178e-01 | 8.9328e+00 | 8.4148e+02 | 7.5038e+01 |
|        | SD | .         | 0.0151 | 0.4422 | 0.0138 | 3.2185e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.4927 | 4.4979 | 0.0130 | 4.3774e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.5512 | 6.2167 | 0.0642 | 9.1775e-01 | .          | .          | .          |
| ins    | .  | All       | 0.5188 | 6.3731 | 0.0211 | 5.3651e-01 | 9.7924e+00 | 1.8536e+03 | 8.7673e+01 |
|        | SD | .         | 0.0207 | 0.6701 | 0.0185 | 9.9067e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.4881 | 4.7800 | 0.0000 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5699 | 7.5886 | 0.0668 | 4.4761e+00 | .          | .          | .          |
| mfc    | .  | All       | 0.5584 | 5.5961 | 0.0182 | 4.9414e-01 | 8.3614e+00 | 1.3481e+03 | 8.2578e+01 |
|        | SD | .         | 0.0172 | 0.3779 | 0.0094 | 7.0321e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.5327 | 4.8515 | 0.0060 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5961 | 6.2488 | 0.0363 | 2.8957e-01 | .          | .          | .          |
| occ    | .  | All       | 0.4601 | 4.7247 | 0.0327 | 7.2316e-01 | 8.1414e+00 | 1.0587e+03 | 7.8711e+01 |
|        | SD | .         | 0.0170 | 0.4569 | 0.0151 | 5.7481e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.4300 | 3.8536 | 0.0098 | 4.0787e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.5006 | 5.6787 | 0.0618 | 1.0252e+00 | .          | .          | .          |
| pc     | .  | All       | 0.5278 | 5.4066 | 0.0173 | 7.0453e-01 | 9.2157e+00 | 1.7463e+03 | 8.6719e+01 |
|        | SD | .         | 0.0213 | 0.4276 | 0.0093 | 1.7554e+01 | .          | .          | .          |
|        | CL | 95% Lower | 0.4977 | 4.5066 | 0.0052 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.5820 | 6.1390 | 0.0399 | 9.6256e+01 | .          | .          | .          |
| put    | .  | All       | 5.0000 | 0.1527 | 2.3425 | 5.7432e+01 | 8.9237e+00 | 5.5672e+02 | 6.8428e+01 |
|        | SD | .         | 1.5821 | 0.1058 | 0.3874 | 1.1067e+01 | .          | .          | .          |
|        | CL | 95% Lower | 2.4296 | 0.1004 | 1.4659 | 2.9466e+01 | .          | .          | .          |
|        | CL | 95% Upper | 6.5962 | 0.3507 | 2.8144 | 6.8787e+01 | .          | .          | .          |
| raphe  | .  | All       | 0.0000 | 0.0000 | 0.0000 | 6.6534e-03 | 1.0074e-05 | 3.8951e+01 | 2.5872e+01 |
|        | SD | .         | 0.0000 | 0.2624 | 0.1312 | 2.6235e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.0000 | 0.0000 | 0.0000 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.0000 | 0.2591 | 0.1295 | 2.5976e+00 | .          | .          | .          |
| smar   | .  | All       | 0.5132 | 4.9425 | 0.0291 | 6.4288e-01 | 8.1200e+00 | 1.5537e+03 | 8.4849e+01 |
|        | SD | .         | 0.0213 | 0.4886 | 0.0162 | 7.0215e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.4796 | 4.1251 | 0.0074 | 0.0000e+00 | .          | .          | .          |

|     |    |     |       |        |        |        |            |            |            |            |
|-----|----|-----|-------|--------|--------|--------|------------|------------|------------|------------|
| tha | CL | 95% | Upper | 0.5624 | 5.9148 | 0.0606 | 5.0031e-01 | .          | .          | .          |
|     | SD | .   | All   | 0.5670 | 5.5595 | 0.0592 | 8.4742e-01 | 1.0271e+01 | 1.4573e+03 | 8.3824e+01 |
|     | CL | 95% | Lower | 0.0262 | 0.7914 | 0.0362 | 3.4499e-01 | .          | .          | .          |
|     | CL | 95% | Upper | 0.5270 | 3.8776 | 0.0134 | 4.3923e-01 | .          | .          | .          |
| wm  | CL | 95% | Upper | 0.6186 | 7.0822 | 0.1358 | 1.5757e+00 | .          | .          | .          |
|     | SD | .   | All   | 0.1517 | 3.8409 | 0.0224 | 1.0000e+02 | 3.8793e+02 | 3.3496e+02 | 6.0299e+01 |
|     | SD | .   | .     | 0.0062 | 0.5520 | 0.0165 | 4.7177e+01 | .          | .          | .          |
|     | CL | 95% | Lower | 0.1420 | 2.5015 | 0.0094 | 4.7356e+01 | .          | .          | .          |
| str | CL | 95% | Upper | 0.1646 | 4.6758 | 0.0659 | 1.4474e+02 | .          | .          | .          |
|     | SD | .   | All   | 0.8062 | 0.4981 | 1.1574 | 1.6881e+01 | 8.9068e+00 | 4.6502e+02 | 6.5548e+01 |
|     | SD | .   | .     | 0.7419 | 0.2255 | 0.3279 | 8.8645e+00 | .          | .          | .          |
|     | CL | 95% | Lower | 0.3810 | 0.1525 | 0.5951 | 5.7076e+00 | .          | .          | .          |
| lpi | CL | 95% | Upper | 2.7185 | 1.0443 | 2.0551 | 4.3305e+01 | .          | .          | .          |
|     | SD | .   | All   | 0.4874 | 5.0482 | 0.0258 | 5.6030e-01 | 7.8768e+00 | 1.4909e+03 | 8.4189e+01 |
|     | SD | .   | .     | 0.0204 | 0.5241 | 0.0186 | 7.0268e+00 | .          | .          | .          |
|     | CL | 95% | Lower | 0.4540 | 4.0061 | 0.0014 | 0.0000e+00 | .          | .          | .          |
| gt  | CL | 95% | Upper | 0.5363 | 6.1233 | 0.0746 | 4.1607e-01 | .          | .          | .          |
|     | SD | .   | All   | 0.5062 | 5.2650 | 0.0316 | 6.2795e-01 | 8.5712e+00 | 9.4645e+02 | 7.6918e+01 |
|     | SD | .   | .     | 0.0158 | 0.4595 | 0.0144 | 3.0027e+00 | .          | .          | .          |
|     | CL | 95% | Lower | 0.4788 | 4.4380 | 0.0105 | 2.0673e-01 | .          | .          | .          |
|     | CL | 95% | Upper | 0.5395 | 6.2081 | 0.0587 | 6.6534e-01 | .          | .          | .          |

## 2. MADAM

### 2.1 FRGU

fitk2 0.1 (c) 2004 by Turku PET Centre

Date: 2004-11-17 03:45:02

Study: RE\_FRGU1

Data file: FMtis.dft

Plasma file: FMplasma.dft

Blood file: FMBlood.dft

Data range: 0 - 93 min (N=20)

Vb: 1.5 %

Data was not weighted.

| Region |              | K1     | K1/k2      | Vb%    | WSS        | AIC        |
|--------|--------------|--------|------------|--------|------------|------------|
| ac     | All          | 0.2991 | 9.2655e+00 | 1.5000 | 2.6026e+03 | 1.0208e+02 |
|        | SD           | 0.0072 | 1.5252e-01 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.2850 | 8.9592e+00 | 0.0150 | .          | .          |
| ang    | CL 95% Upper | 0.3140 | 9.5114e+00 | 0.0150 | .          | .          |
|        | All          | 0.2873 | 7.3517e+00 | 1.5000 | 1.4513e+03 | 9.0395e+01 |
|        | SD           | 0.0062 | 9.1440e-02 | 0.0000 | .          | .          |
| cau    | CL 95% Lower | 0.2747 | 7.1769e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.2985 | 7.5208e+00 | 0.0150 | .          | .          |
|        | All          | 0.3353 | 1.3965e+01 | 1.5000 | 5.8389e+03 | 1.1824e+02 |
| cer    | SD           | 0.0092 | 3.1753e-01 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.3200 | 1.3349e+01 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.3522 | 1.4602e+01 | 0.0150 | .          | .          |
| dlp    | All          | 0.2914 | 7.2619e+00 | 1.5000 | 9.6108e+02 | 8.2152e+01 |
|        | SD           | 0.0051 | 7.3714e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.2819 | 7.1174e+00 | 0.0150 | .          | .          |
| gti    | CL 95% Upper | 0.3029 | 7.3954e+00 | 0.0150 | .          | .          |
|        | All          | 0.3142 | 8.1759e+00 | 1.5000 | 1.4445e+03 | 9.0302e+01 |
|        | SD           | 0.0058 | 8.8605e-02 | 0.0000 | .          | .          |
| gtm    | CL 95% Lower | 0.3028 | 8.0054e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.3256 | 8.3496e+00 | 0.0150 | .          | .          |
|        | All          | 0.2925 | 7.7893e+00 | 1.5000 | 1.0771e+03 | 8.4432e+01 |
| gts    | SD           | 0.0050 | 7.8706e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.2830 | 7.6477e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.3026 | 7.9456e+00 | 0.0150 | .          | .          |
| ins    | All          | 0.3115 | 8.3853e+00 | 1.5000 | 1.2218e+03 | 8.6952e+01 |
|        | SD           | 0.0055 | 8.9449e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.3003 | 8.2238e+00 | 0.0150 | .          | .          |
| mfc    | CL 95% Upper | 0.3224 | 8.5417e+00 | 0.0150 | .          | .          |
|        | All          | 0.3249 | 8.2886e+00 | 1.5000 | 1.3045e+03 | 8.8263e+01 |
|        | SD           | 0.0061 | 8.9511e-02 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.3121 | 8.1137e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.3353 | 8.4604e+00 | 0.0150 | .          | .          |
|        | All          | 0.2911 | 1.0129e+01 | 1.5000 | 1.1859e+03 | 8.6357e+01 |
|        | SD           | 0.0044 | 1.0844e-01 | 0.0000 | .          | .          |
|        | CL 95% Lower | 0.2824 | 9.9377e+00 | 0.0150 | .          | .          |
|        | CL 95% Upper | 0.2995 | 1.0333e+01 | 0.0150 | .          | .          |
|        | All          | 0.3255 | 8.0171e+00 | 1.5000 | 2.4215e+03 | 1.0063e+02 |

|       |    |     |       |        |            |        |            |            |
|-------|----|-----|-------|--------|------------|--------|------------|------------|
|       | SD | .   | .     | 0.0084 | 1.1503e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3096 | 7.8065e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3418 | 8.2488e+00 | 0.0150 | .          | .          |
| occ   | .  | .   | All   | 0.3286 | 8.2325e+00 | 1.5000 | 1.1586e+03 | 8.5890e+01 |
|       | SD | .   | .     | 0.0056 | 8.2755e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3177 | 8.0740e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3394 | 8.3997e+00 | 0.0150 | .          | .          |
| pc    | .  | .   | All   | 0.2879 | 8.4377e+00 | 1.5000 | 1.8190e+03 | 9.4912e+01 |
|       | SD | .   | .     | 0.0066 | 1.0589e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2758 | 8.2205e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.2992 | 8.6302e+00 | 0.0150 | .          | .          |
| put   | .  | .   | All   | 0.3260 | 1.3666e+01 | 1.5000 | 4.2720e+03 | 1.1199e+02 |
|       | SD | .   | .     | 0.0079 | 2.7382e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3110 | 1.3176e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3406 | 1.4202e+01 | 0.0150 | .          | .          |
| raphe | .  | .   | All   | 0.2684 | 2.6267e+01 | 1.5000 | 7.6250e+03 | 1.2358e+02 |
|       | SD | .   | .     | 0.0073 | 1.4071e+00 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2553 | 2.3650e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.2830 | 2.9054e+01 | 0.0150 | .          | .          |
| smar  | .  | .   | All   | 0.2879 | 7.2941e+00 | 1.5000 | 1.7047e+03 | 9.3614e+01 |
|       | SD | .   | .     | 0.0068 | 9.9918e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2750 | 7.1012e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3011 | 7.4820e+00 | 0.0150 | .          | .          |
| tha   | .  | .   | All   | 0.3043 | 1.4813e+01 | 1.5000 | 3.0703e+03 | 1.0538e+02 |
|       | SD | .   | .     | 0.0060 | 2.8678e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2935 | 1.4260e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3156 | 1.5351e+01 | 0.0150 | .          | .          |
| wm    | .  | .   | All   | 0.0878 | 6.6701e+00 | 1.5000 | 6.9590e+02 | 7.5695e+01 |
|       | SD | .   | .     | 0.0024 | 2.7715e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.0834 | 6.1689e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.0927 | 7.2529e+00 | 0.0150 | .          | .          |
| str   | .  | .   | All   | 0.3285 | 1.3771e+01 | 1.5000 | 4.5257e+03 | 1.1314e+02 |
|       | SD | .   | .     | 0.0081 | 2.8270e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3139 | 1.3236e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3437 | 1.4296e+01 | 0.0150 | .          | .          |
| lpi   | .  | .   | All   | 0.2869 | 7.3191e+00 | 1.5000 | 1.4073e+03 | 8.9780e+01 |
|       | SD | .   | .     | 0.0062 | 9.1564e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2749 | 7.1372e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.2987 | 7.4982e+00 | 0.0150 | .          | .          |
| gt    | .  | .   | All   | 0.3109 | 8.1813e+00 | 1.5000 | 1.0640e+03 | 8.4187e+01 |
|       | SD | .   | .     | 0.0052 | 8.2176e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3004 | 8.0170e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3211 | 8.3332e+00 | 0.0150 | .          | .          |

fitk4 2.1 (c) 2000-2004 by Turku PET Centre

Date: 2004-11-17 03:56:17

Study: RE\_FRGU1

Data file: FMtis.dft

Plasma file: FMplasma.dft

Blood file: FMBlood.dft

Data range: 0 - 93 min (N=20)

Vb: 1.5 %

Data was not weighted.

| Region |    | K1        | K1/k2  | k3      | k3/k4  | DV         | WSS        | AIC        |            |
|--------|----|-----------|--------|---------|--------|------------|------------|------------|------------|
| ac     | .  | All       | 0.3438 | 0.4167  | 5.0000 | 2.1249e+01 | 9.2703e+00 | 2.6018e+03 | 1.0803e+02 |
|        | SD | .         | 0.0886 | 0.0269  | 1.5270 | 2.3430e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.2696 | 0.3812  | 2.4535 | 1.9634e+01 | .          | .          | .          |
|        | CL | 95% Upper | 0.5732 | 0.4475  | 6.2111 | 2.3283e+01 | .          | .          | .          |
| ang    | .  | All       | 0.2873 | 7.0532  | 5.0000 | 4.2322e-02 | 7.3517e+00 | 1.4513e+03 | 9.6356e+01 |
|        | SD | .         | 0.0161 | 1.0902  | 2.2852 | 1.1750e+01 | .          | .          | .          |
|        | CL | 95% Lower | 0.2705 | 3.1949  | 2.4336 | 0.0000e+00 | .          | .          | .          |
|        | CL | 95% Upper | 0.3226 | 7.5165  | 7.4321 | 1.8609e+01 | .          | .          | .          |
| cau    | .  | All       | 0.3463 | 10.0000 | 5.0000 | 3.7743e-01 | 1.3774e+01 | 5.4386e+03 | 1.2278e+02 |
|        | SD | .         | 0.0780 | 0.9786  | 1.8034 | 3.2583e+00 | .          | .          | .          |
|        | CL | 95% Lower | 0.3227 | 9.7040  | 1.0383 | 1.0159e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.3837 | 10.2781 | 6.0041 | 3.2736e-01 | .          | .          | .          |
| cer    | .  | All       | 0.3432 | 0.3472  | 5.0000 | 1.9928e+01 | 7.2655e+00 | 9.5965e+02 | 8.8083e+01 |
|        | SD | .         | 0.0582 | 0.0083  | 1.3071 | 4.4163e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.2934 | 0.3338  | 2.6973 | 1.9217e+01 | .          | .          | .          |
|        | CL | 95% Upper | 0.4793 | 0.3605  | 5.9939 | 2.0693e+01 | .          | .          | .          |
| dlp    | .  | All       | 0.3148 | 5.0266  | 5.0000 | 6.2653e-01 | 8.1759e+00 | 1.4446e+03 | 9.6264e+01 |
|        | SD | .         | 0.0189 | 0.4965  | 2.1029 | 4.2663e-01 | .          | .          | .          |
|        | CL | 95% Lower | 0.2972 | 4.4978  | 1.6117 | 5.3720e-01 | .          | .          | .          |
|        | CL | 95% Upper | 0.3492 | 5.2056  | 6.5379 | 7.5419e-01 | .          | .          | .          |
| gti    | .  | All       | 0.2925 | 7.6370  | 5.0000 | 1.9952e-02 | 7.7893e+00 | 1.0771e+03 | 9.0393e+01 |

|       |    |     |       |        |         |        |            |            |            |            |
|-------|----|-----|-------|--------|---------|--------|------------|------------|------------|------------|
|       | SD | .   | .     | 0.0300 | 1.2518  | 2.3162 | 1.4511e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2787 | 2.9950  | 2.8037 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3288 | 8.1660  | 7.8030 | 3.1287e+01 | .          | .          | .          |
| gtm   | .  | .   | All   | 0.3115 | 8.3295  | 4.9994 | 6.6981e-03 | 8.3853e+00 | 1.2218e+03 | 9.2913e+01 |
|       | SD | .   | .     | 0.0105 | 1.1700  | 2.3713 | 2.3353e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2975 | 4.1379  | 2.8787 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3371 | 8.9116  | 7.8782 | 9.3602e+01 | .          | .          | .          |
| gts   | .  | .   | All   | 0.3326 | 1.7358  | 5.0000 | 3.7755e+00 | 8.2891e+00 | 1.3044e+03 | 9.4222e+01 |
|       | SD | .   | .     | 0.0241 | 0.0448  | 1.9100 | 1.1000e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3079 | 1.6570  | 2.1302 | 3.7272e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3948 | 1.7910  | 6.5367 | 3.9585e+00 | .          | .          | .          |
| ins   | .  | .   | All   | 0.3698 | 0.2583  | 5.0000 | 3.8254e+01 | 1.0139e+01 | 1.1804e+03 | 9.2224e+01 |
|       | SD | .   | .     | 0.2443 | 0.0173  | 1.1778 | 4.8268e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2804 | 0.2235  | 2.8902 | 3.5837e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.6328 | 0.2744  | 5.9185 | 4.3922e+01 | .          | .          | .          |
| mfc   | .  | .   | All   | 0.3255 | 7.6174  | 4.7235 | 5.2466e-02 | 8.0171e+00 | 2.4215e+03 | 1.0659e+02 |
|       | SD | .   | .     | 0.0195 | 1.2227  | 2.2795 | 3.8895e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3055 | 3.0945  | 2.3138 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3622 | 8.1960  | 7.3124 | 6.3374e+00 | .          | .          | .          |
| occ   | .  | .   | All   | 0.3286 | 7.5314  | 5.0000 | 9.3094e-02 | 8.2325e+00 | 1.1586e+03 | 9.1851e+01 |
|       | SD | .   | .     | 0.0192 | 0.8959  | 2.1747 | 8.9981e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3156 | 4.4934  | 2.3200 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3554 | 8.0618  | 7.3189 | 5.7092e-01 | .          | .          | .          |
| pc    | .  | .   | All   | 4.6081 | 0.0840  | 3.5470 | 1.0000e+02 | 8.4827e+00 | 1.6764e+03 | 9.9240e+01 |
|       | SD | .   | .     | 1.9963 | 0.0333  | 0.8340 | 1.6585e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 2.1444 | 0.0655  | 1.4597 | 5.6875e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 6.6648 | 0.1693  | 4.7154 | 1.1289e+02 | .          | .          | .          |
| put   | .  | .   | All   | 0.3353 | 9.9999  | 5.0000 | 3.4990e-01 | 1.3499e+01 | 3.9812e+03 | 1.1654e+02 |
|       | SD | .   | .     | 0.0160 | 0.9905  | 1.6722 | 5.6275e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3186 | 9.6629  | 0.9311 | 2.6573e-01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3659 | 10.2665 | 5.9008 | 3.4079e-01 | .          | .          | .          |
| raphe | .  | .   | All   | 0.5034 | 0.2517  | 2.3594 | 9.9611e+01 | 2.5319e+01 | 7.0608e+03 | 1.2800e+02 |
|       | SD | .   | .     | 0.2768 | 0.1133  | 1.3849 | 1.7830e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2409 | 0.1822  | 0.4905 | 5.5900e+01 | .          | .          | .          |
|       | CL | 95% | Upper | 1.3537 | 0.4661  | 4.6463 | 1.1267e+02 | .          | .          | .          |
| smar  | .  | .   | All   | 0.2879 | 7.2118  | 5.0000 | 1.1407e-02 | 7.2941e+00 | 1.7047e+03 | 9.9575e+01 |
|       | SD | .   | .     | 0.0131 | 0.9869  | 2.3646 | 2.2550e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2721 | 3.3640  | 2.7285 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3109 | 7.6961  | 7.7279 | 9.4010e+01 | .          | .          | .          |
| tha   | .  | .   | All   | 0.3102 | 9.8345  | 5.0000 | 5.0457e-01 | 1.4797e+01 | 2.8618e+03 | 1.0994e+02 |
|       | SD | .   | .     | 0.0089 | 0.7187  | 2.1033 | 3.9482e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2983 | 9.3879  | 1.8116 | 4.5636e-01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3296 | 10.1293 | 6.7560 | 5.3132e-01 | .          | .          | .          |
| wm    | .  | .   | All   | 0.0879 | 4.6115  | 5.0000 | 4.4641e-01 | 6.6702e+00 | 6.9591e+02 | 8.1656e+01 |
|       | SD | .   | .     | 0.0256 | 0.7254  | 2.0789 | 4.2752e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.0805 | 1.7600  | 2.1984 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.0946 | 5.5255  | 7.1891 | 3.1403e+00 | .          | .          | .          |
| str   | .  | .   | All   | 0.3385 | 9.9997  | 5.0000 | 3.5935e-01 | 1.3593e+01 | 4.1926e+03 | 1.1757e+02 |
|       | SD | .   | .     | 0.0197 | 0.8725  | 1.8000 | 7.5826e-01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.3202 | 9.7387  | 1.0048 | 2.7328e-01 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3704 | 10.2324 | 5.9815 | 3.8648e-01 | .          | .          | .          |
| lpi   | .  | .   | All   | 0.2869 | 7.1731  | 5.0000 | 2.0342e-02 | 7.3191e+00 | 1.4073e+03 | 9.5741e+01 |
|       | SD | .   | .     | 0.0152 | 1.0503  | 2.3397 | 1.3252e+01 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2714 | 3.4853  | 2.7081 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3156 | 7.6511  | 7.7070 | 3.1069e+01 | .          | .          | .          |
| gt    | .  | .   | All   | 0.3109 | 7.9500  | 5.0000 | 2.9085e-02 | 8.1812e+00 | 1.0640e+03 | 9.0148e+01 |
|       | SD | .   | .     | 0.0151 | 1.2393  | 2.3003 | 8.3647e+00 | .          | .          | .          |
|       | CL | 95% | Lower | 0.2960 | 3.0551  | 2.8921 | 0.0000e+00 | .          | .          | .          |
|       | CL | 95% | Upper | 0.3493 | 8.4497  | 7.8914 | 1.0546e+01 | .          | .          | .          |

## 2.2 PAGH

fitk2 0.1 (c) 2004 by Turku PET Centre  
Date: 2004-11-17 05:26:22  
Study: RE\_PAGH1  
Data file: PMtis.dft  
Plasma file: PMplasma.dft  
Blood file: PMblood.dft  
Data range: 0 - 93 min (N=20)  
Vb: 1.5 %  
Data was not weighted.

| Region |    | K1        | K1/k2  | Vb%        | WSS    | AIC        |
|--------|----|-----------|--------|------------|--------|------------|
| ac     | .  | All       | 0.3205 | 1.0810e+01 | 1.5000 | 1.8599e+03 |
|        | SD | .         | 0.0058 | 1.3963e-01 | 0.0000 | .          |
|        | CL | 95% Lower | 0.3100 | 1.0525e+01 | 0.0150 | .          |



|       |    |     |       |        |            |        |            |            |
|-------|----|-----|-------|--------|------------|--------|------------|------------|
|       | CL | 95% | Upper | 0.3327 | 1.1063e+01 | 0.0150 | .          | .          |
| ang   | .  | .   | All   | 0.3525 | 8.2764e+00 | 1.5000 | 1.1770e+03 | 8.6205e+01 |
|       | SD | .   | .     | 0.0059 | 8.0694e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3422 | 8.1366e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3649 | 8.4403e+00 | 0.0150 | .          | .          |
| cau   | .  | .   | All   | 0.3637 | 1.5167e+01 | 1.5000 | 1.3053e+03 | 8.8275e+01 |
|       | SD | .   | .     | 0.0043 | 1.5172e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3557 | 1.4892e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3724 | 1.5433e+01 | 0.0150 | .          | .          |
| cer   | .  | .   | All   | 0.3540 | 7.9424e+00 | 1.5000 | 7.6673e+02 | 7.7634e+01 |
|       | SD | .   | .     | 0.0044 | 6.4223e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3466 | 7.8304e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3621 | 8.0678e+00 | 0.0150 | .          | .          |
| dlp   | .  | .   | All   | 0.3506 | 8.8163e+00 | 1.5000 | 8.8787e+02 | 8.0568e+01 |
|       | SD | .   | .     | 0.0048 | 7.4763e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3429 | 8.6865e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3602 | 8.9705e+00 | 0.0150 | .          | .          |
| gti   | .  | .   | All   | 0.3182 | 8.8269e+00 | 1.5000 | 7.7682e+02 | 7.7895e+01 |
|       | SD | .   | .     | 0.0040 | 7.3257e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3105 | 8.6963e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3267 | 8.9698e+00 | 0.0150 | .          | .          |
| gtm   | .  | .   | All   | 0.3391 | 8.6302e+00 | 1.5000 | 9.1779e+02 | 8.1231e+01 |
|       | SD | .   | .     | 0.0048 | 7.6233e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3307 | 8.5032e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3510 | 8.8134e+00 | 0.0150 | .          | .          |
| gts   | .  | .   | All   | 0.3293 | 9.2571e+00 | 1.5000 | 1.1264e+03 | 8.5326e+01 |
|       | SD | .   | .     | 0.0047 | 8.9887e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3216 | 9.1050e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3394 | 9.4415e+00 | 0.0150 | .          | .          |
| ins   | .  | .   | All   | 0.3379 | 1.0980e+01 | 1.5000 | 1.0254e+03 | 8.3449e+01 |
|       | SD | .   | .     | 0.0042 | 9.6208e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3312 | 1.0815e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3468 | 1.1185e+01 | 0.0150 | .          | .          |
| mfc   | .  | .   | All   | 0.3694 | 9.7491e+00 | 1.5000 | 1.4483e+03 | 9.0354e+01 |
|       | SD | .   | .     | 0.0060 | 1.0087e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3575 | 9.5722e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3816 | 9.9204e+00 | 0.0150 | .          | .          |
| occ   | .  | .   | All   | 0.3048 | 8.6674e+00 | 1.5000 | 8.0639e+02 | 7.8643e+01 |
|       | SD | .   | .     | 0.0042 | 7.1588e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2979 | 8.5492e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3136 | 8.8185e+00 | 0.0150 | .          | .          |
| pc    | .  | .   | All   | 0.3643 | 9.7495e+00 | 1.5000 | 2.4732e+03 | 1.0106e+02 |
|       | SD | .   | .     | 0.0081 | 1.2817e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3498 | 9.5048e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3802 | 1.0005e+01 | 0.0150 | .          | .          |
| put   | .  | .   | All   | 0.3658 | 1.6324e+01 | 1.5000 | 1.1956e+03 | 8.6519e+01 |
|       | SD | .   | .     | 0.0036 | 1.4329e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3597 | 1.6097e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3739 | 1.6603e+01 | 0.0150 | .          | .          |
| raphe | .  | .   | All   | 0.2614 | 2.4340e+01 | 1.5000 | 5.1502e+03 | 1.1573e+02 |
|       | SD | .   | .     | 0.0065 | 1.1234e+00 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.2478 | 2.2281e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.2728 | 2.6718e+01 | 0.0150 | .          | .          |
| smar  | .  | .   | All   | 0.3510 | 8.3327e+00 | 1.5000 | 7.0606e+02 | 7.5985e+01 |
|       | SD | .   | .     | 0.0043 | 6.9039e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3425 | 8.2073e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3584 | 8.4816e+00 | 0.0150 | .          | .          |
| tha   | .  | .   | All   | 0.3345 | 1.6483e+01 | 1.5000 | 2.1683e+03 | 9.8426e+01 |
|       | SD | .   | .     | 0.0049 | 2.2799e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3267 | 1.6035e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3455 | 1.6917e+01 | 0.0150 | .          | .          |
| wm    | .  | .   | All   | 0.0941 | 8.8290e+00 | 1.5000 | 1.3390e+03 | 8.8784e+01 |
|       | SD | .   | .     | 0.0034 | 5.2799e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.0875 | 7.9283e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.1008 | 9.8008e+00 | 0.0150 | .          | .          |
| str   | .  | .   | All   | 0.3650 | 1.5982e+01 | 1.5000 | 1.0141e+03 | 8.3226e+01 |
|       | SD | .   | .     | 0.0035 | 1.2977e-01 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3592 | 1.5769e+01 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3724 | 1.6221e+01 | 0.0150 | .          | .          |
| lpi   | .  | .   | All   | 0.3514 | 8.2905e+00 | 1.5000 | 6.4501e+02 | 7.4176e+01 |
|       | SD | .   | .     | 0.0042 | 6.2550e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3436 | 8.1879e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3592 | 8.4100e+00 | 0.0150 | .          | .          |
| gt    | .  | .   | All   | 0.3290 | 8.9060e+00 | 1.5000 | 7.6433e+02 | 7.7571e+01 |
|       | SD | .   | .     | 0.0039 | 7.1122e-02 | 0.0000 | .          | .          |
|       | CL | 95% | Lower | 0.3230 | 8.7886e+00 | 0.0150 | .          | .          |
|       | CL | 95% | Upper | 0.3373 | 9.0497e+00 | 0.0150 | .          | .          |

fitk4 2.1 (c) 2000-2004 by Turku PET Centre  
 Date: 2004-11-17 05:37:07  
 Study: RE\_PAGH1  
 Data file: PMtis.dft  
 Plasma file: PMplasma.dft  
 Blood file: PMblood.dft  
 Data range: 0 - 93 min (N=20)  
 Vb: 1.5 %  
 Data was not weighted.

| Region |              | K1     | K1/k2   | k3     | k3/k4      | DV         | WSS        | AIC        |
|--------|--------------|--------|---------|--------|------------|------------|------------|------------|
| ac     | All          | 5.0000 | 0.1840  | 1.7598 | 5.8529e+01 | 1.0953e+01 | 8.2410e+02 | 8.5038e+01 |
|        | SD           | 1.5895 | 0.0802  | 0.2985 | 1.1376e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.0332 | 0.1173  | 1.1820 | 3.1552e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.2095 | 0.3837  | 2.2983 | 7.6554e+01 | .          | .          | .          |
| ang    | All          | 5.0000 | 0.1285  | 2.8186 | 6.3812e+01 | 8.3275e+00 | 7.0338e+02 | 8.1870e+01 |
|        | SD           | 1.5353 | 0.1653  | 0.5731 | 1.1937e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.5092 | 0.0885  | 1.4811 | 3.2098e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.5206 | 0.2963  | 3.6410 | 7.2442e+01 | .          | .          | .          |
| cau    | All          | 1.3792 | 0.1509  | 3.1868 | 1.0000e+02 | 1.5245e+01 | 1.0525e+03 | 8.9930e+01 |
|        | SD           | 0.9964 | 0.1102  | 0.8074 | 1.4353e+01 | .          | .          | .          |
|        | CL 95% Lower | 0.3829 | 0.1272  | 1.9466 | 7.5693e+01 | .          | .          | .          |
|        | CL 95% Upper | 4.8056 | 0.1912  | 4.8740 | 1.0528e+02 | .          | .          | .          |
| cer    | All          | 5.0000 | 0.1402  | 2.5808 | 5.6015e+01 | 7.9933e+00 | 2.4076e+02 | 6.0428e+01 |
|        | SD           | 1.4568 | 0.0524  | 0.3682 | 8.8464e+00 | .          | .          | .          |
|        | CL 95% Lower | 2.3649 | 0.1123  | 1.7494 | 3.1282e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.3475 | 0.2756  | 3.0886 | 6.3238e+01 | .          | .          | .          |
| d1p    | All          | 5.0000 | 0.1124  | 3.2306 | 7.7892e+01 | 8.8644e+00 | 5.5190e+02 | 7.7019e+01 |
|        | SD           | 1.6951 | 0.2974  | 0.7600 | 1.4353e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.3582 | 0.0531  | 1.6062 | 3.7216e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.6538 | 0.2518  | 4.9714 | 9.3755e+01 | .          | .          | .          |
| gti    | All          | 5.0000 | 0.1220  | 2.6712 | 7.1896e+01 | 8.8904e+00 | 3.3929e+02 | 6.7289e+01 |
|        | SD           | 1.6402 | 0.1169  | 0.4890 | 1.3241e+01 | .          | .          | .          |
|        | CL 95% Lower | 1.9852 | 0.0795  | 1.4610 | 2.7521e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.3354 | 0.3752  | 3.5282 | 8.7471e+01 | .          | .          | .          |
| gtm    | All          | 5.0000 | 0.1422  | 2.4355 | 6.0136e+01 | 8.6931e+00 | 3.3597e+02 | 6.7092e+01 |
|        | SD           | 1.4858 | 0.0443  | 0.3457 | 9.5014e+00 | .          | .          | .          |
|        | CL 95% Lower | 2.3412 | 0.1177  | 1.6471 | 3.3788e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.4291 | 0.2834  | 2.9430 | 6.6948e+01 | .          | .          | .          |
| gts    | All          | 5.0000 | 0.1733  | 1.9204 | 5.2956e+01 | 9.3495e+00 | 2.4607e+02 | 6.0864e+01 |
|        | SD           | 1.2886 | 0.0308  | 0.2049 | 6.3514e+00 | .          | .          | .          |
|        | CL 95% Lower | 2.4448 | 0.1385  | 1.3816 | 3.6756e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.1358 | 0.2575  | 2.2722 | 6.3027e+01 | .          | .          | .          |
| ins    | All          | 5.0000 | 0.1604  | 2.1566 | 6.8155e+01 | 1.1091e+01 | 2.4424e+02 | 6.0715e+01 |
|        | SD           | 1.3415 | 0.0361  | 0.2263 | 8.0657e+00 | .          | .          | .          |
|        | CL 95% Lower | 2.5847 | 0.1442  | 1.5661 | 4.2394e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.2069 | 0.2708  | 2.4275 | 7.3223e+01 | .          | .          | .          |
| mfc    | All          | 5.0000 | 0.1379  | 2.7730 | 7.0187e+01 | 9.8133e+00 | 8.8149e+02 | 8.6384e+01 |
|        | SD           | 1.5820 | 0.1116  | 0.5836 | 1.2037e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.3022 | 0.1024  | 1.2931 | 3.2456e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.5725 | 0.3526  | 3.8720 | 7.8856e+01 | .          | .          | .          |
| occ    | All          | 5.0000 | 0.1437  | 2.1462 | 5.9881e+01 | 8.7471e+00 | 1.8780e+02 | 5.5459e+01 |
|        | SD           | 1.4585 | 0.0316  | 0.2428 | 7.8521e+00 | .          | .          | .          |
|        | CL 95% Lower | 2.3751 | 0.1150  | 1.6503 | 3.9735e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.2645 | 0.2286  | 2.5310 | 7.0015e+01 | .          | .          | .          |
| pc     | All          | 0.3839 | 8.8406  | 0.0023 | 1.0000e+02 | 8.9290e+02 | 1.6609e+03 | 9.9054e+01 |
|        | SD           | 0.0132 | 0.7568  | 0.0160 | 4.7631e+01 | .          | .          | .          |
|        | CL 95% Lower | 0.3646 | 6.3391  | 0.0000 | 5.6447e+01 | .          | .          | .          |
|        | CL 95% Upper | 0.4165 | 9.6447  | 0.0437 | 1.5625e+02 | .          | .          | .          |
| put    | All          | 4.9239 | 0.1629  | 2.3643 | 1.0000e+02 | 1.6451e+01 | 5.0950e+02 | 7.5421e+01 |
|        | SD           | 1.4896 | 0.1223  | 0.3249 | 1.5230e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.3067 | 0.1320  | 1.6208 | 5.2468e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.3499 | 0.3326  | 2.7557 | 1.0852e+02 | .          | .          | .          |
| raphe  | All          | 0.3060 | 6.8349  | 0.1045 | 2.9178e+00 | 2.6778e+01 | 4.3917e+03 | 1.1850e+02 |
|        | SD           | 0.1249 | 3.1590  | 0.3073 | 1.2348e+01 | .          | .          | .          |
|        | CL 95% Lower | 0.2292 | 0.9332  | 0.0000 | 0.0000e+00 | .          | .          | .          |
|        | CL 95% Upper | 0.5013 | 10.3951 | 0.8440 | 3.9154e+01 | .          | .          | .          |
| smar   | All          | 5.0000 | 0.0985  | 3.7014 | 8.3968e+01 | 8.3711e+00 | 4.3684e+02 | 7.2344e+01 |
|        | SD           | 1.5767 | 0.0663  | 0.7048 | 1.2735e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.2823 | 0.0792  | 2.0405 | 4.9219e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.3524 | 0.1810  | 4.9715 | 9.2842e+01 | .          | .          | .          |
| tha    | All          | 5.0000 | 0.1721  | 2.0354 | 9.5488e+01 | 1.6608e+01 | 1.1142e+03 | 9.1071e+01 |
|        | SD           | 1.5294 | 0.0437  | 0.2738 | 1.1538e+01 | .          | .          | .          |
|        | CL 95% Lower | 2.4652 | 0.1521  | 1.2152 | 5.9388e+01 | .          | .          | .          |
|        | CL 95% Upper | 6.4523 | 0.2915  | 2.5001 | 1.0539e+02 | .          | .          | .          |

|     |    |           |        |        |        |            |            |            |            |
|-----|----|-----------|--------|--------|--------|------------|------------|------------|------------|
| wm  | .  | All       | 1.0157 | 0.0929 | 1.0547 | 1.0000e+02 | 9.3820e+00 | 1.0865e+03 | 9.0567e+01 |
|     | SD | .         | 1.8369 | 0.0830 | 0.7759 | 2.1058e+01 | .          | .          | .          |
|     | CL | 95% Lower | 0.0000 | 0.0535 | 0.3694 | 4.6040e+01 | .          | .          | .          |
|     | CL | 95% Upper | 4.3460 | 0.2943 | 4.8867 | 1.1619e+02 | .          | .          | .          |
| str | .  | All       | 2.8642 | 0.1593 | 2.5586 | 1.0000e+02 | 1.6093e+01 | 4.9669e+02 | 7.4911e+01 |
|     | SD | .         | 1.3886 | 0.0908 | 0.3564 | 1.4212e+01 | .          | .          | .          |
|     | CL | 95% Lower | 0.9123 | 0.1362 | 1.6633 | 5.2554e+01 | .          | .          | .          |
|     | CL | 95% Upper | 4.9834 | 0.3158 | 3.1265 | 1.0617e+02 | .          | .          | .          |
| lpi | .  | All       | 5.0000 | 0.1099 | 3.3078 | 7.4837e+01 | 8.3334e+00 | 3.1652e+02 | 6.5900e+01 |
|     | SD | .         | 1.5266 | 0.0433 | 0.5606 | 1.2055e+01 | .          | .          | .          |
|     | CL | 95% Lower | 2.2020 | 0.0896 | 1.9800 | 3.5142e+01 | .          | .          | .          |
|     | CL | 95% Upper | 6.3007 | 0.2745 | 4.2516 | 8.3105e+01 | .          | .          | .          |
| gt  | .  | All       | 5.0000 | 0.1462 | 2.2910 | 6.0400e+01 | 8.9786e+00 | 1.4170e+02 | 4.9827e+01 |
|     | SD | .         | 1.2693 | 0.0258 | 0.2171 | 6.6663e+00 | .          | .          | .          |
|     | CL | 95% Lower | 2.3644 | 0.1242 | 1.8070 | 4.3355e+01 | .          | .          | .          |
|     | CL | 95% Upper | 6.1363 | 0.2089 | 2.6448 | 6.8128e+01 | .          | .          | .          |

## Multilinear fitting of regional data

Distribution volume (DV) was estimated with program lhsoldv 1.3.1. This program uses multilinear method and Lawson-Hanson non-negative least square algorithm to solve a three compartment model. DVs are estimated directly without division. DV estimates are relatively close to the ones obtained in the nonlinear fit.

```
lhsoldv 1.3.1 (c) 2002-2004 by Turku PET Centre
Date:      2004-11-16 13:54:06
Study:     FRGU3
Data file:  FDcbv.dft
Plasma file: ..\frgu\dadam\result\FDplasma_pure_min.dft
Data range: 69 min (N=16)
Vb:       0 %
Data was not weighted.
```

| Region |   | DV  | fCM        | SS           | AIC        |
|--------|---|-----|------------|--------------|------------|
| ac     | . | All | 1.0792e+01 | 2 3.4112e+06 | 2.0796e+02 |
| ang    | . | All | 1.0236e+01 | 2 3.7365e+06 | 2.0941e+02 |
| cau    | . | All | 1.1595e+01 | 2 2.2236e+07 | 2.3795e+02 |
| cer    | . | All | 9.8849e+00 | 2 4.2315e+06 | 2.1140e+02 |
| dlp    | . | All | 9.8676e+00 | 2 1.7396e+07 | 2.3402e+02 |
| gti    | . | All | 1.0924e+01 | 2 1.4453e+07 | 2.3106e+02 |
| gtm    | . | All | 1.0676e+01 | 2 6.8231e+06 | 2.1905e+02 |
| gts    | . | All | 1.0005e+01 | 2 7.7675e+06 | 2.2112e+02 |
| ins    | . | All | 1.1817e+01 | 2 6.4693e+06 | 2.1820e+02 |
| mfc    | . | All | 9.7694e+00 | 2 3.4829e+06 | 2.0829e+02 |
| occ    | . | All | 1.0057e+01 | 2 2.0424e+07 | 2.3659e+02 |
| pc     | . | All | 1.0946e+01 | 2 1.7502e+07 | 2.3412e+02 |
| put    | . | All | 1.2268e+01 | 2 3.0334e+07 | 2.4292e+02 |
| raphe  | . | All | 0.0000e+00 | 2 1.4299e+07 | 2.3089e+02 |
| smar   | . | All | 1.0168e+01 | 2 3.2335e+06 | 2.0710e+02 |
| tha    | . | All | 1.2028e+01 | 2 3.0417e+07 | 2.4296e+02 |
| wm     | . | All | 1.2093e+01 | 2 4.0927e+07 | 2.4771e+02 |
| str    | . | All | 1.2070e+01 | 2 2.6908e+07 | 2.4100e+02 |
| lpi    | . | All | 1.0190e+01 | 2 3.4524e+06 | 2.0815e+02 |
| gt     | . | All | 1.0533e+01 | 2 9.6778e+06 | 2.2464e+02 |

```
lhsoldv 1.3.1 (c) 2002-2004 by Turku PET Centre
Date:      2004-11-16 13:54:07
Study:     PAGH3
Data file:  PDcbv.dft
Plasma file: ..\pagh\dadam\result\PDplasma_pure_min.dft
Data range: 69 min (N=16)
Vb:       0 %
Data was not weighted.
```

| Region |  | DV | fCM | SS | AIC |
|--------|--|----|-----|----|-----|
|--------|--|----|-----|----|-----|

|       |   |     |        |   |            |            |
|-------|---|-----|--------|---|------------|------------|
| ac    | . | All | 8.1488 | 2 | 4.2581e+07 | 2.4835e+02 |
| ang   | . | All | 7.0234 | 2 | 2.1237e+07 | 2.3721e+02 |
| cau   | . | All | 8.9906 | 2 | 1.6262e+07 | 2.3294e+02 |
| cer   | . | All | 7.4770 | 2 | 2.4620e+07 | 2.3958e+02 |
| dlp   | . | All | 7.6765 | 2 | 4.1154e+07 | 2.4780e+02 |
| gti   | . | All | 7.4829 | 2 | 2.2285e+07 | 2.3799e+02 |
| gtm   | . | All | 8.1845 | 2 | 3.0981e+07 | 2.4326e+02 |
| gts   | . | All | 8.4350 | 2 | 2.5270e+07 | 2.4000e+02 |
| ins   | . | All | 8.9504 | 2 | 4.2823e+07 | 2.4844e+02 |
| mfc   | . | All | 7.6635 | 2 | 3.6129e+07 | 2.4572e+02 |
| occ   | . | All | 7.5472 | 2 | 2.8720e+07 | 2.4204e+02 |
| pc    | . | All | 7.7794 | 2 | 5.6021e+07 | 2.5273e+02 |
| put   | . | All | 8.7147 | 2 | 5.6345e+06 | 2.1599e+02 |
| raphe | . | All | 0.0000 | 2 | 1.0605e+07 | 2.2610e+02 |
| smar  | . | All | 7.4792 | 2 | 3.1398e+07 | 2.4347e+02 |
| tha   | . | All | 9.9199 | 2 | 1.8810e+07 | 2.3527e+02 |
| wm    | . | All | 7.6489 | 2 | 9.4569e+07 | 2.6111e+02 |
| str   | . | All | 8.7677 | 2 | 4.5686e+06 | 2.1263e+02 |
| lpi   | . | All | 7.2787 | 2 | 2.7337e+07 | 2.4126e+02 |
| gt    | . | All | 8.0615 | 2 | 2.5621e+07 | 2.4022e+02 |

lhsoldv 1.3.1 (c) 2002-2004 by Turku PET Centre  
Date: 2004-11-16 13:54:08  
Study: RE\_FRGU1  
Data file: FMcbv.dft  
Plasma file: ..\frgu\madam\result\FMplasma\_pure\_min.dft  
Data range: 93 min (N=20)  
Vb: 0 %  
Data was not weighted.

| Region |   | DV  | fCM        | SS | AIC        |            |
|--------|---|-----|------------|----|------------|------------|
| ac     | . | All | 8.9381e+00 | 2  | 6.1697e+07 | 3.0951e+02 |
| ang    | . | All | 7.0750e+00 | 2  | 1.3317e+07 | 2.7884e+02 |
| cau    | . | All | 1.2777e+01 | 2  | 2.1406e+08 | 3.3439e+02 |
| cer    | . | All | 7.0517e+00 | 2  | 1.5114e+07 | 2.8138e+02 |
| dlp    | . | All | 7.8956e+00 | 2  | 1.4582e+07 | 2.8066e+02 |
| gti    | . | All | 7.5586e+00 | 2  | 1.0025e+07 | 2.7316e+02 |
| gtm    | . | All | 8.1380e+00 | 2  | 1.6413e+07 | 2.8302e+02 |
| gts    | . | All | 8.0403e+00 | 2  | 1.4827e+07 | 2.8099e+02 |
| ins    | . | All | 9.7598e+00 | 2  | 3.0502e+07 | 2.9542e+02 |
| mfc    | . | All | 7.7962e+00 | 2  | 3.8262e+07 | 2.9995e+02 |
| occ    | . | All | 8.0317e+00 | 2  | 9.0766e+06 | 2.7118e+02 |
| pc     | . | All | 8.2425e+00 | 2  | 3.1834e+07 | 2.9627e+02 |
| put    | . | All | 1.2795e+01 | 2  | 1.1711e+08 | 3.2232e+02 |
| raphe  | . | All | 2.3769e+01 | 2  | 1.1818e+09 | 3.6856e+02 |
| smar   | . | All | 7.0358e+00 | 2  | 2.0714e+07 | 2.8768e+02 |
| tha    | . | All | 1.4249e+01 | 2  | 1.4249e+08 | 3.2625e+02 |
| wm     | . | All | 6.5214e+00 | 2  | 2.9477e+07 | 2.9473e+02 |
| str    | . | All | 1.2742e+01 | 2  | 1.3088e+08 | 3.2455e+02 |
| lpi    | . | All | 7.0524e+00 | 2  | 1.5842e+07 | 2.8232e+02 |
| gt     | . | All | 7.9344e+00 | 2  | 1.2607e+07 | 2.7775e+02 |

lhsoldv 1.3.1 (c) 2002-2004 by Turku PET Centre  
Date: 2004-11-16 13:54:10  
Study: RE\_PAGH1  
Data file: PMcbv.dft  
Plasma file: ..\pagh\madam\result\PMplasma\_pure\_min.dft  
Data range: 93 min (N=20)  
Vb: 0 %  
Data was not weighted.

| Region |   | DV  | fCM        | SS | AIC        |            |
|--------|---|-----|------------|----|------------|------------|
| ac     | . | All | 1.0731e+01 | 2  | 4.0732e+07 | 3.0120e+02 |
| ang    | . | All | 8.1565e+00 | 2  | 1.6530e+07 | 2.8317e+02 |
| cau    | . | All | 1.4918e+01 | 2  | 3.2940e+07 | 2.9696e+02 |
| cer    | . | All | 7.8541e+00 | 2  | 6.9394e+06 | 2.6581e+02 |

|       |   |     |            |   |            |            |
|-------|---|-----|------------|---|------------|------------|
| dlp   | . | All | 8.6592e+00 | 2 | 9.4749e+06 | 2.7204e+02 |
| gti   | . | All | 8.7543e+00 | 2 | 8.1461e+06 | 2.6901e+02 |
| gtm   | . | All | 8.5244e+00 | 2 | 5.2912e+06 | 2.6038e+02 |
| gts   | . | All | 9.1959e+00 | 2 | 5.0312e+06 | 2.5938e+02 |
| ins   | . | All | 1.0866e+01 | 2 | 4.7774e+06 | 2.5834e+02 |
| mfc   | . | All | 9.6165e+00 | 2 | 1.5066e+07 | 2.8131e+02 |
| occ   | . | All | 8.6109e+00 | 2 | 7.7184e+06 | 2.6793e+02 |
| pc    | . | All | 9.6046e+00 | 2 | 6.6268e+07 | 3.1094e+02 |
| put   | . | All | 1.6200e+01 | 2 | 2.2248e+07 | 2.8911e+02 |
| raphe | . | All | 2.5917e+01 | 2 | 5.9375e+08 | 3.5479e+02 |
| smar  | . | All | 8.2421e+00 | 2 | 6.3419e+06 | 2.6401e+02 |
| tha   | . | All | 1.6265e+01 | 2 | 4.7859e+07 | 3.0443e+02 |
| wm    | . | All | 9.3347e+00 | 2 | 9.6102e+07 | 3.1837e+02 |
| str   | . | All | 1.5815e+01 | 2 | 2.1792e+07 | 2.8869e+02 |
| lpi   | . | All | 8.1886e+00 | 2 | 7.9662e+06 | 2.6857e+02 |
| gt    | . | All | 8.8273e+00 | 2 | 4.5412e+06 | 2.5733e+02 |