

Supplementary Material

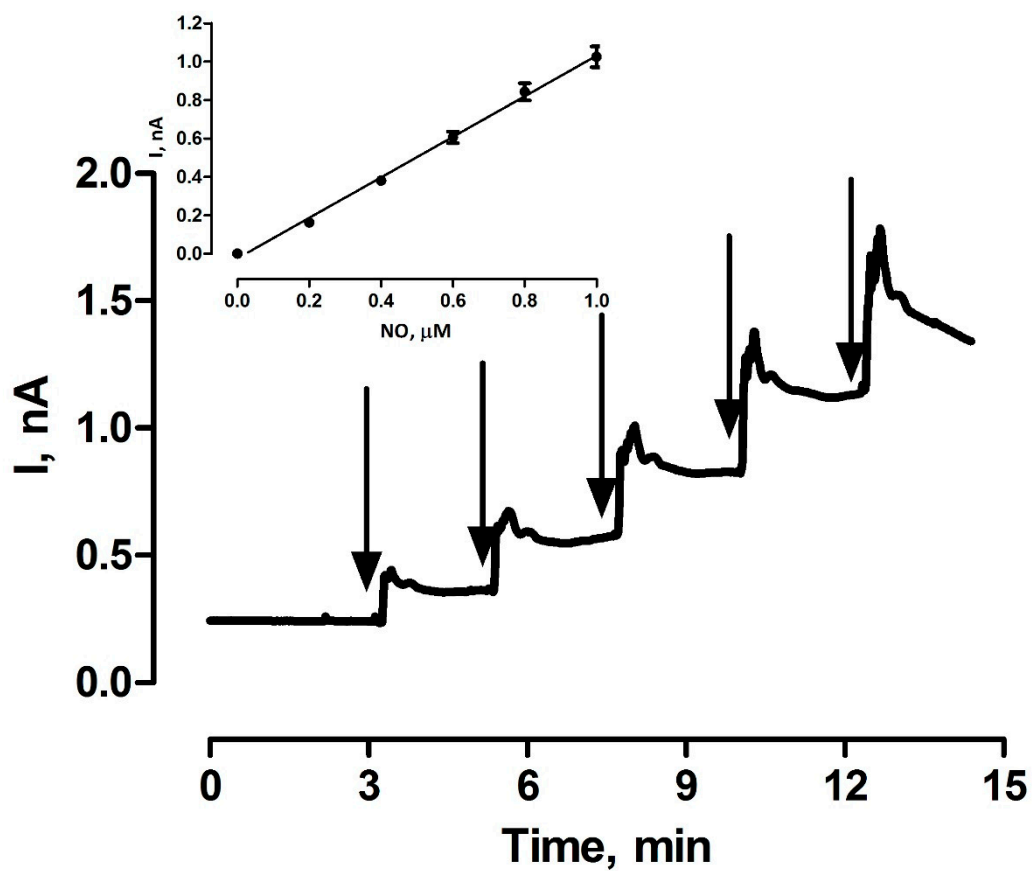


Figure S1: Typical *in vitro* data obtained for a 0 to 1 μM NO calibration using Nafion[®] coated Pt disk sensors. Arrows indicate addition of 0.2 μM NO aliquots. *Inset*: Current concentration profile for NO calibration on Nafion[®] coated Pt disk sensors ($n=23$), $r^2 = 0.99$. All concentration profile data is presented as mean \pm SEM.

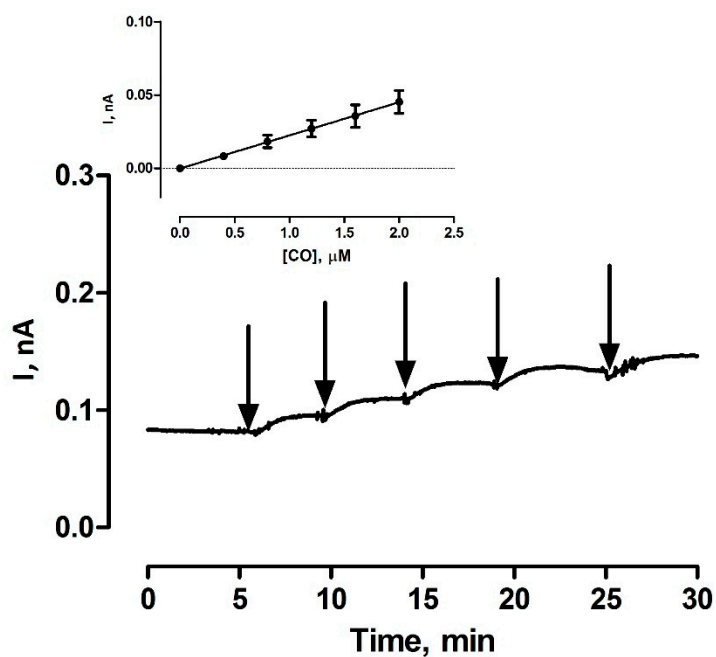
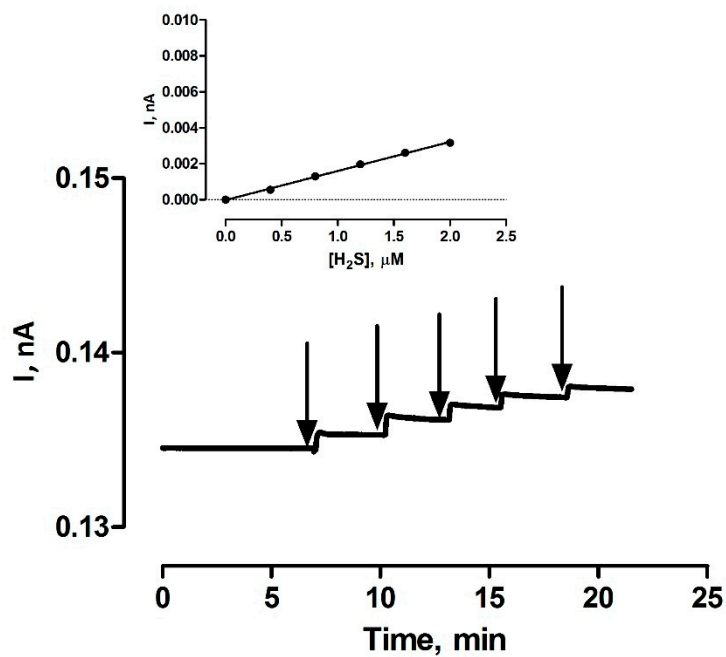


Figure S2: Typical *in vitro* data obtained for (top, main) 0 to 2 μM H₂S and (bottom, main) 0 to 2 μM CO calibrations on Nafion[®] coated Pt disk NO sensors. Arrows indicate addition of 0.4 μM aliquots. *Inset*: Current concentration profile for (top) H₂S and (bottom) CO calibration on Nafion[®] coated Pt disk NO sensors ($n = 4$), $r^2 = 0.99$. All concentration profile data is presented as mean \pm SEM.

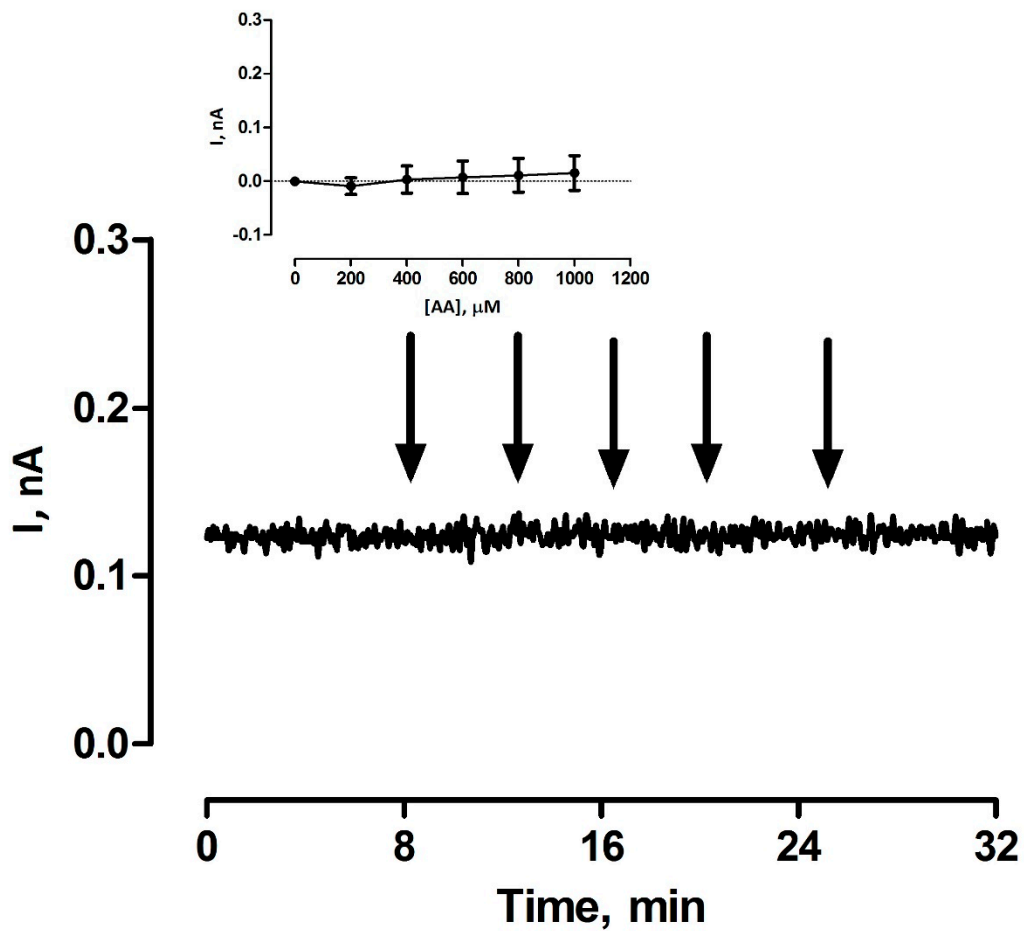


Figure S3: Typical *in vitro* data obtained for a 0 to 1000 μ M AA calibration using Nafion[®] coated Pt disk NO sensors. Arrows indicate addition of 200 μ M AA aliquots. *Inset*: Current concentration profile for AA calibration on Nafion[®] coated Pt disk NO sensors ($n = 17$), $r^2 = 0.99$. All concentration profile data is presented as mean \pm SEM.

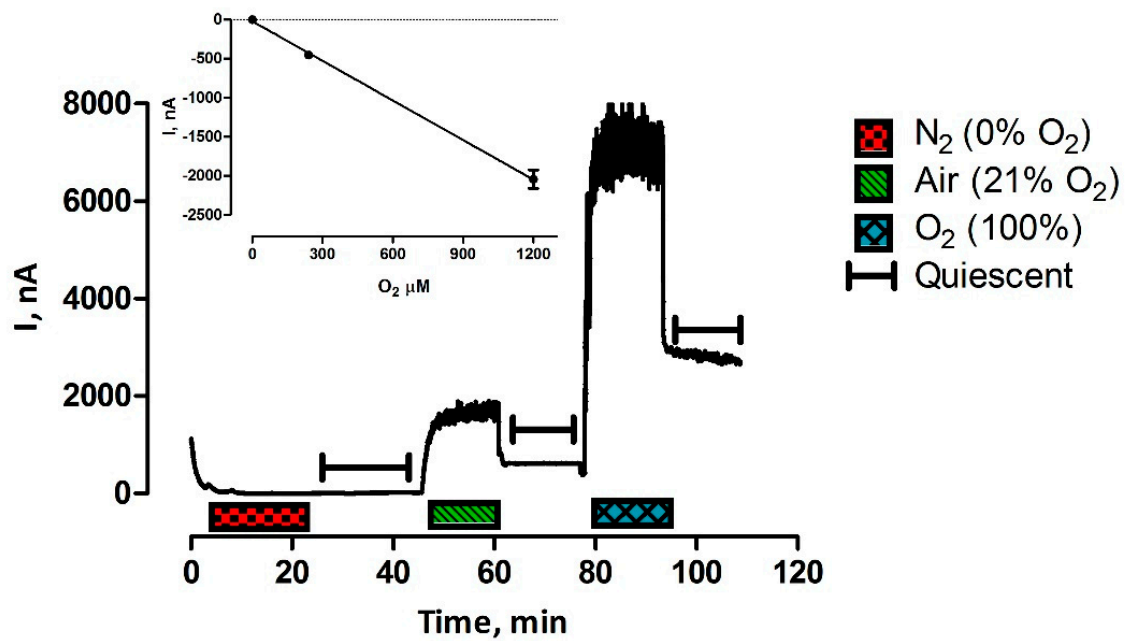


Figure S4: Typical *in vitro* data obtained for a 0 to 1200 μM O₂ calibration using CPE. *Inset*: Current concentration profile for O₂ calibration on CPEs ($n = 17$), $r^2 = 0.99$. All concentration profile data is presented as mean \pm SEM.

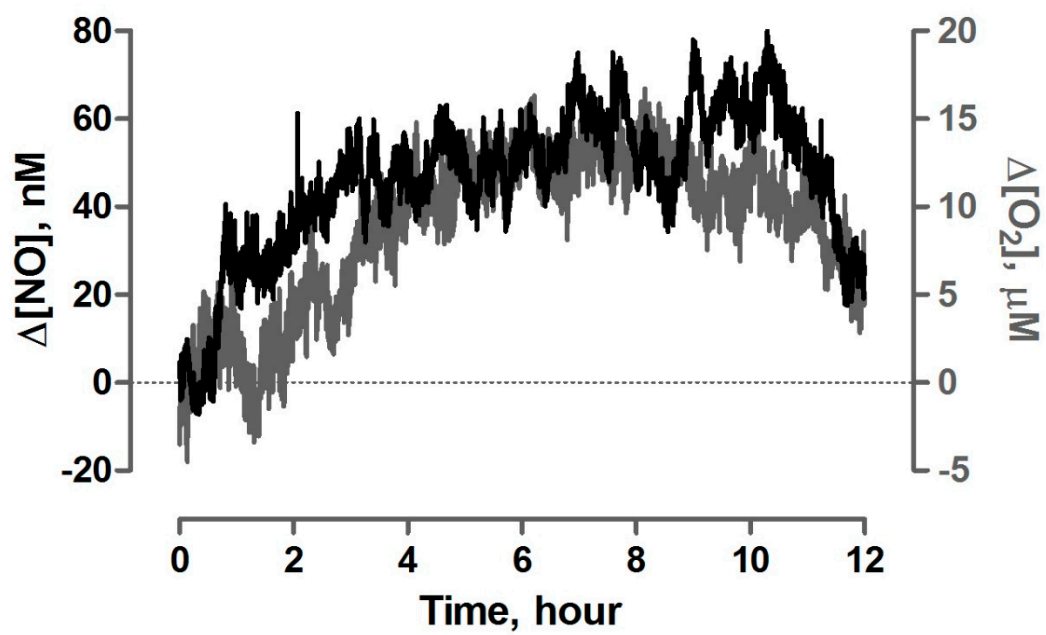


Figure S5: Comparison of averaged dark phase (19.00 – 07.00) concentration dynamics measured using NO (black trace, left y-axis) and O₂ (grey trace, right y-axis) sensors implanted in the striatum of NOD SCID mice.