Abbreviations and definitions

$A_{bound,\ A/B}$	see $A_{b,A/B}$
$A_{b,A/B}$	Amount bound to the membrane surface area at the start of Rinse A ($A_{b,A}$) or Rinse B ($A_{b,B}$) [pmol/mm^3]
A_c	Total amount of compound [pmol]
$A_{c,\ dead\ volume}$	Amount of compound still present in the tubing or microdialysis probe at the start of the rinsing phase [pmol]
Amount eluted	Amount of compound washed out or extracted from a material (in this case tubing or membrane material) by a solvent (in this case Ringer's solution)
Ae	Amount of compound eluted from the material tested, in pmol/cm^2 for tubing materials, and in pmol/mm^3 for membranes
Ae_{0-5}	Amount of compound eluted within the first five dead volume exchanges (tubing materials) [pmol]
Ae_{1-5}	Ae_{0-5} with a correction for the dead volume and inner surface area (tubing materials) [pmol/cm^2]
$Ae_{first\ hour,\ A/B}$	see $Ae_{A/B}$
$Ae_{A/B}$	Amount of compound eluted from a microdialysis probe within the one hour observation period at each rinsing phase, corrected for the dead volume in the tubing and probe, and for membrane volume: Ae_A for Rinse A and Ae_B for Rinse B [pmol/mm^3]
$Ae_{total,\ A/B}$	Total amount of compound collected within the one hour observation period at each rinsing phase: $Ae_{total,\ A}$ for Rinse A and $Ae_{total,\ B}$ for Rinse B [pmol]
$A_{unbound,\ A/B}$	see $A_{u,A/B}$
$A_{u,A/B}$	Free (unbound) amount of compound in the Ringer's solution occupying the pores of the microdialysis membrane at the start of Rinse A ($A_{u,A}$) or Rinse B ($A_{u,B}$) [pmol/mm^3]
AUD	Area under the data of the K-profile for a tested microdialysis probe [µL/min/mm^2]
BASi	Bioanalytical Systems, Inc, West Lafayette, USA
BSA	Bovine serum albumin
C_0	Concentration of sample 0, taken and the end of the priming phase (tubing materials) [µM]
$C_{A/B}$	Last measured sample concentration of Phase A (C_A) or Phase B (C_B) [µM]
Cell	Cellulosic, membrane material
CMA	CMA Microdialysis AB, Solna, Sweden
C_{medium}	Concentration of compound in the medium [µM]
C_{sample}	Sample concentration [µM]
Cu	Cuprophane, membrane material
CV	Coefficient of variance [%]
DPM	Number of decays per minute
FEP	Fluorinated ethylene propylene, tubing material

iAUD	Area under the data of the K-profile for an imaginary ideal microdialysis probe with the same $K_{A/B}$ as the tested probe [µL/min/mm^2]
%iAUD	Percentage of the iAUD achieved [%]
ID	Inner diameter in mm (tubing) or µm (membranes)
K	Mass transfer coefficient [µL/min/mm^2]
$K_{A/B}$	Average mass transfer coefficient per concentration phase: K_A for Phase A and K_B for Phase B [µL/min/mm^2]
K_{sample}	Apparent mass transfer coefficient for each sample [µL/min/mm^2]
LLOQ	Lower limit of quantification, in this case twice the background radiation in DPM per sample
Log P_{OW} (pH 7)	Octanol : water partition coefficient at a pH of 7. Values < 1.9 are considered to indicate hydrophilic compounds, values ≥ 1.9 are considered to indicate lipophilic compounds
MW	Molecular weight [Da]
Medium	Solution surrounding the microdialysis probe, in this case always Ringer's solution, with or without compound added
Microbiotech se	Microbiotech/se AB, Stockholm, Sweden
OD	Outer diameter in mm (tubing) or µm (membranes)
PAN	Polyacrylonitrile, membrane material
PC	Polycarbonate, membrane material
PEEK	Polyetheretherketone, tubing material
PES	Polyethersulphone, membrane material
pKa	Acid dissociation constant
PSL	Photo Stimulated Luminescence – unit describing the density of radioactivity on an exposed imaging plate
Q	Flow rate [µl/min]
r_α	Outer radius of the inner cannula of a concentric probe [µm]
r_i	Inner radius of the microdialysis membrane [µm]
$REC_{A/B}$	Average recovery per concentration phase: REC_A for Phase A and REC_B for Phase B [%]
REC_{sample}	Apparent recovery for each sample (for the tubing materials termed '% of starting concentration') [%]
Responsiveness	The ability of a microdialysis probe to respond to concentration changes. The faster steady-state is reached, the better the responsiveness.
Ringer	147 mM NaCl, 4 mM KCl and 2.3 mM $CaCl_2$ in H_2O, pH 7.4.
S	Membrane surface area = π × OD × Length [mm^2]
S_{20} (pH 7)	The aqueous solubility in pH 7 buffer at 20°C [µM]
SD	Standard deviation
TEA	Triethylamine
TLC	Thin layer chromatography
V	Membrane solid volume = π × (OD^2 – ID^2)/4 × Length [mm^3]