

<b>Cross-sectional analysis – FA</b>				
	<b>corticospinal tract</b>	<b>corticopontine tract / corticorubral tract</b>	<b>cortico-striatal pathway</b>	<b>perforant path (prox. portion)</b>
controls				
$\mu$	0.379	0.380	0.307	0.191
$\sigma$	0.030	0.019	0.031	0.023
threshold	0.365	0.370	0.292	0.180
ALS				
$\mu$	0.350	0.352	0.287	0.184
$\sigma$	0.033	0.031	0.038	0.019
p (ALS vs. controls)	$2*10^{-18}$	$2*10^{-28}$	$1*10^{-9}$	$7*10^{-4}$
sensitivity	72 %	72 %	55 %	54 %
specificity	67 %	68 %	65 %	63 %
<b>Longitudinal analysis – <math>\Delta</math>FA</b>				
controls				
$\mu$	$2*10^{-6}$	$-2*10^{-6}$	$-2*10^{-6}$	$-4*10^{-6}$
$\sigma$	$4*10^{-5}$	$3*10^{-5}$	$3*10^{-5}$	$5*10^{-5}$
ALS				
$\mu$	$-3*10^{-5}$	$-4*10^{-5}$	$-3*10^{-5}$	$-7*10^{-6}$
$\sigma$	$5*10^{-5}$	$6*10^{-5}$	$7*10^{-5}$	$4*10^{-5}$
p (ALS vs. controls)	$3*10^{-4}$	$-9*10^{-4}$	$-3*10^{-3}$	0.9

**Supplementary Table 3: Cross-sectional and longitudinal comparison by TFAS analysis of data from ALS patients and controls.** Mean values, standard deviations and p-values. Longitudinal data are given as  $\Delta$ FA per day. FA-threshold calculation of data from controls.