

Supplementary Data 8
Statistics for comparison of circularity (related to Fig. 7d)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: circularity		INH Source Data TAB: Fig. 7d-g Column: circularity	
Fit Report	Fit Report CTRL (see bellow)		Fit Report INH (see bellow)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	68		68	
Number of Parameters	10		10	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	7.269	10	116	7.630e ⁻⁹
At the 0.05 significance level, the two datasets are significantly different.				

Fit Reports												
	Peak	Parameter	CTRL					INH				
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency
Fit Parameters	Peak 1	y ₀	0.181	0.596	0.303	0.762	0.524	0.938	0.565	1.659	0.102	0.421
		x _c	0.037	0.001	24.45	3e ⁻³²	0.928	0.032	5.6e ⁻⁴	57.42	8e ⁻⁵³	0.777
		w	0.012	9.5e ⁻⁴	12.63	2e ⁻¹⁸	0.879	0.007	4.9e ⁻⁴	15.58	2e ⁻²²	0.802
		A	69.06	9.363	7.376	6e ⁻¹⁰	0.969	86.91	5.802	14.97	1e ⁻²¹	0.862
		FWHM	0.028	0.002	-	-	-	0.018	0.001	-	-	-
		Area	2.079	0.419	-	-	-	1.674	0.173	-	-	-
	Peak 2	y ₀	0.181	0.596	0.303	0.762	0.524	0.938	0.565	1.659	0.102	0.421
		x _c	0.071	0.005	13.93	3e ⁻²⁰	0.968	0.055	0.001	31.31	4e ⁻³⁸	0.762
		w	0.017	0.007	2.285	0.099	0.991	0.008	0.002	3.439	0.001	0.923
		A	37.59	21.62	1.738	0.087	0.996	28.86	11.04	2.613	0.011	0.967
		FWHM	0.042	0.018	-	-	-	0.020	0.006	-	-	-
		Area	1.683	1.659	-	-	-	0.638	0.392	-	-	-
	Peak 3	y ₀	0.181	0.596	0.303	0.762	0.524	0.938	0.565	1.659	0.12	0.421
		x _c	0.110	0.044	2.461	0.016	0.994	0.079	0.007	10.66	2e ⁻¹⁵	0.971
		w	0.025	0.020	1.203	0.233	0.984	0.023	0.004	5.145	3e ⁻⁶	0.952
		A	12.60	12.02	1.048	0.298	0.991	33.01	3.642	9.062	1e ⁻¹²	0.888
		FWHM	0.059	0.049	-	-	-	0.056	0.010	-	-	-
		Area	0.791	1.380	-	-	-	1.983	0.552	-	-	-
Fit Statistics	Number of Points	68					68					
	Degrees of Freedom	58					58					
	Reduced Chi-Sqr	11.51					12.56					
	Residual Sum of Squares	667.5					728.9					
	R-Square (COD)	0.977					0.978					
	Adj. R-Square	0.974					0.974					

Statistics for comparison of soma volume (related to Fig. 7e)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: somaVol		INH Source Data TAB: Fig. 7d-g Column: somaVol	
Fit Report	Fit Report CTRL (see bellow)		Fit Report INH (see bellow)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	250		250	
Number of Parameters	7		7	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	13.44	7	486	6.66e ⁻¹⁶
At the 0.05 significance level, the two datasets are significantly different.				

Fit Reports												
	Peak	Parameter	CTRL					INH				
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency
Fit Parameters	Peak 1	y ₀	0.299	0.125	2.380	0.018	0.162	0.206	0.149	1.381	0.168	0.201
		x _c	221.2	1.791	123.5	2e ⁻²²¹	0.274	210.1	2.544	82.60	7e ⁻¹⁸⁰	0.374
		w	53.66	2.277	23.56	1e ⁻⁶⁴	0.700	83.93	5.386	15.58	1.9e ⁻³⁸	0.905
		A	41.52	1.455	28.52	1e ⁻⁷⁹	0.670	45.85	3.691	12.42	9.3e ⁻²⁸	0.955
		FWHM	126.3	5.362	-	-	-	197.6	12.68	-	-	-
		Area	5586	343.1	-	-	-	9647	1335	-	-	-
	Peak 2	y ₀	0.299	0.125	2.380	0.018	0.162	0.206	0.149	1.381	0.168	0.201
		x _c	327.8	7.961	41.18	1e ⁻¹¹¹	0.655	422.0	48.85	8.639	7.6e ⁻¹⁶	0.959
		w	183.4	5.787	31.69	2e ⁻⁸⁸	0.521	212.0	27.32	7.763	2.3e ⁻¹³	0.908
		A	25.68	1.083	23.71	3e ⁻⁶⁵	0.825	15.05	1.475	10.20	1.4e ⁻²⁰	0.890
		FWHM	431.9	13.62	-	-	-	499.4	64.33	-	-	-
		Area	11811	477.5	-	-	-	8002	1635	-	-	-
	Fit Statistics	Number of Points	250					250				
		Degrees of Freedom	243					243				
Reduced Chi-Sqr		3.31595					4.47978					
Residual Sum of Squares		805.77531					1088.58534					
R-Square (COD)		0.97181					0.95924					
Adj. R-Square		0.97112					0.95823					

Statistics for comparison of Branch volume (related to Fig. 7f)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: branchVol		INH Source Data TAB: Fig. 7d-g Column: branchVol	
Fit Report	Fit Report CTRL (see bellow)		Fit Report INH (see bellow)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	150		150	
Number of Parameters	7		7	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	9.239	7	201	6.695e ⁻¹⁰
At the 0.05 significance level, the two datasets are significantly different.				

Fit Reports												
Fit Parameters	Peak	Parameter	CTRL					INH				
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency
			Peak 1	y ₀	0.521	0.203	2.563	0.011	0.144	0.179	0.515	0.347
	x _c	651.2	11.95	54.46	1e ⁻⁹⁷	0.836	758.0	20.16	37.59	2e ⁻⁴²	0.913	
	w	221.5	22.79	9.718	1e ⁻¹⁷	0.969	316.9	24.30	13.03	6e ⁻¹⁹	0.959	
	A	75.31	20.18	3.731	2.7e ⁻⁴	0.996	98.67	20.83	4.735	1e ⁻⁵	0.996	
	FWHM	521.6	53.67	-	-	-	746.3	57.24	-	-	-	
	Area	41818	15362	-	-	-	78387	22267	-	-	-	
Peak 2	y ₀	0.521	0.203	2.563	0.011	0.144	0.179	0.515	0.347	0.729	0.447	
	x _c	1058	142.4	7.431	8e ⁻¹²	0.994	1403.5	957.8	1.465	0.148	0.994	
	w	372.0	59.69	6.232	4.8e ⁻⁹	0.980	520.3	464.9	1.119	0.267	0.983	
	A	45.90	10.08	4.550	1.1e ⁻⁵	0.992	10.22	9.086	1.125	0.265	0.987	
	FWHM	876.1	140.5	-	-	-	1225	1094	-	-	-	
	Area	42814	15919	-	-	-	13333	23254	-	-	-	
Fit Statistics	Number of Points	150					65					
	Degrees of Freedom	143					58					
	Reduced Chi-Sqr	5.31038					9.53496					
	Residual Sum of Squares	759.38391					553.02786					
	R-Square (COD)	0.98577					0.98921					
	Adj. R-Square	0.98518					0.98809					

Statistics for comparison of Number of Nodes per major branch (related to Fig. 7fg)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: branchNodesPerBranch		INH Source Data TAB: Fig. 7d-g Column: branchNodesPerBranch	
Fit Report	Fit Report CTRL (see below)		Fit Report INH (see below)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	60		50	
Number of Parameters	7		7	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	4.120	7	96	5.343e ⁻⁴
At the 0.05 significance level, the two datasets are significantly different.				

Fit Reports												
Fit Parameters	Peak	Parameter	CTRL					INH				
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency
			Peak 1	y ₀	1.314	0.802	1.638	0.107	0.294	2.432	1.022	2.380
	x _c	7.810	0.162	47.95	2e ⁻⁴⁵	0.306	7.555	0.111	67.48	2e ⁻⁴⁵	0.139	
	w	2.822	0.314	8.988	3e ⁻¹²	0.875	2.059	0.172	11.93	3e ⁻¹⁵	0.758	
	A	97.151	13.76	7.055	3.6e ⁻⁹	0.942	122.1	8.966	13.61	3e ⁻¹⁷	0.764	
	FWHM	6.646	0.739	-	-	-	4.850	0.406	-	-	-	
	Area	687.3	163.8	-	-	-	630.1	83.72	-	-	-	
Peak 2	y ₀	1.314	0.802	1.638	0.107	0.294	2.432	1.022	2.380	0.021	0.338	
	x _c	16.39	1.476	11.10	1e ⁻¹⁵	0.945	15.18	0.950	15.96	1e ⁻¹⁹	0.817	
	w	6.790	1.016	6.681	1.4e ⁻⁸	0.921	6.862	0.716	9.573	3e ⁻¹²	0.778	
	A	59.35	4.140	14.33	7e ⁻²⁰	0.735	57.18	3.637	15.72	1e ⁻¹⁹	0.569	
	FWHM	15.98	2.392	-	-	-	16.15	1.687	-	-	-	
	Area	1010	194.1	-	-	-	983.5	123.2	-	-	-	
Fit Statistics	Number of Points	60					50					
	Degrees of Freedom	53					43					
	Reduced Chi-Sqr	27.25					34.58					
	Residual Sum of Squares	1444					1486					
	R-Square (COD)	0.972					0.973					
	Adj. R-Square	0.969					0.969					

Statistics for comparison of Branch length (related to Suppl. Fig. 14d)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: branchLengthSkel 3		INH Source Data TAB: Fig. 7d-g Column: branchLengthSkel 3	
Fit Report	Fit Report CTRL (see bellow)		Fit Report INH (see bellow)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_c}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	63		63	
Number of Parameters	7		7	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	0.912	7	112	0.499
At the 0.05 significance level, the two datasets are not significantly different.				

Fit Reports												
Fit Parameters	Peak	Parameter	CTRL					INH				
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency
			Peak 1	y ₀	0.759	0.955	0.795	0.429	0.562	1.932	0.855	2.258
	x _c	6.653	0.134	49.62	5e ⁻⁴⁸	0.257	6.366	0.106	59.73	2e ⁻⁵²	0.157	
	w	2.174	0.258	8.423	1e ⁻¹¹	0.866	1.685	0.170	9.859	7e ⁻¹⁴	0.781	
	A	60.79	8.779	6.924	4e ⁻⁹	0.932	59.19	5.645	10.48	8e ⁻¹⁵	0.814	
	FWHM	5.119	0.607	-	-	-	3.969	0.402	-	-	-	
	Area	331.2	81.53	-	-	-	250.1	42.78	-	-	-	
Peak 2	y ₀	0.759	0.955	0.795	0.429	0.562	1.932	0.855	2.258	0.027	0.522	
	x _c	13.29	1.615	8.232	3e ⁻¹¹	0.937	12.24	0.859	14.24	2e ⁻²⁰	0.850	
	w	5.411	1.150	4.701	1e ⁻⁵	0.916	5.156	0.656	7.849	1e ⁻¹⁰	0.825	
	A	27.40	2.919	9.3886	4e ⁻¹³	0.753	30.50	2.290	13.32	5e ⁻¹⁹	0.632	
	FWHM	12.74	2.710	-	-	-	12.14	1.546	-	-	-	
	Area	371.7	104.1	-	-	-	394.3	63.31	-	-	-	
Fit Statistics	Number of Points	63					63					
	Degrees of Freedom	56					56					
	Reduced Chi-Sqr	25.14					22.02					
	Residual Sum of Squares	1407					1233					
	R-Square (COD)	0.947					0.950					
	Adj. R-Square	0.942					0.945					

Statistics for comparison of Number of Major Branches (related to Suppl. Fig. 14e)

Fit Comparison of Data				
Description				
Input Data	CTRL Source Data TAB: Fig. 7d-g Column: branchNodesPerBranch		INH Source Data TAB: Fig. 7d-g Column: branchNodesPerBranch	
Fit Report	Fit Report CTRL (see bellow)		Fit Report INH (see bellow)	
Equation	$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_0}{w})^2}$		$y = y_0 + A * e^{-\frac{1}{2} * (\frac{x-x_0}{w})^2}$	
Function	GaussAmp		GaussAmp	
Number of Points	21		21	
Number of Parameters	7		7	
F-test				
	F	Numer.DF	Denom.DF	Prob > F
	0.2034	7	28	0.98199
At the 0.05 significance level, the two datasets are not significantly different.				

Fit Reports													
Fit Parameters	Peak	Parameter	CTRL					INH					
			Value	Standard Error	t-Value	Prob> t	Dependency	Value	Standard Error	t-Value	Prob> t	Dependency	
	Peak 1		y0	0.936	2.203	0.424	0.677	0.570	1.401	1.866	0.750	0.465	0.546
		xc	7.757	0.661	11.72	1.26E-8	0.975	7.349	0.421	17.44	6.7E-11	0.944	
		w	2.672	0.773	3.455	0.003	0.987	2.459	0.620	3.965	0.001	0.983	
		A	156.3	180.8	0.864	0.401	0.999	137.2	117.6	1.165	0.263	0.998	
		FWHM	6.293	1.821	-	-	-	5.791	1.460	-	-	-	
		Area	1047	1508	-	-	-	845.8	933.8	-	-	-	
Peak 2			y0	0.936	2.203	0.424	0.677	0.570	1.401	1.866	0.750	0.465	0.546
			xc	11.95	7.249	1.648	0.121	0.998	11.41	3.675	3.104	0.007	0.997
			w	3.908	2.668	1.464	0.165	0.994	3.777	1.421	2.656	0.018	0.990
			A	80.35	103.9	0.772	0.452	0.998	101.5	64.76	1.567	0.139	0.997
		FWHM	9.204	6.283	-	-	-	8.896	3.348	-	-	-	
		Area	787.3	1544.3	-	-	-	961.2	963.7	-	-	-	
Fit Statistics	Number of Points	21					21						
	Degrees of Freedom	14					14						
	Reduced Chi-Sqr	43.74					33.21						
	Residual Sum of Squares	612.3					464.9						
	R-Square (COD)	0.993					0.994						
	Adj. R-Square	0.990					0.992						