Supplementary Table 1: Individual motor thresholds as a percentage of maximum stimulator output from the lesioned (LH) and non-lesioned (NH) hemispheres at T1(1 month) and T2 (three months) after the stroke. S.D. indicates standard deviation.

Patient	LH T1	LH T2	NH T1	NH T2
1	n.d.	n.d	85	91
2	50	56	55	51
3	75	78	57	58
4	n.d	n.d	71	81
5	43	44	34	41
6	6 57		42	42
7	49	57	47	47
8	54	51	54	46
9	80	75	59	61
10	46	49	43	42
11 78		64	77	64
12 63		58	54	51
13	64	56	67	69
Mean ± S.D.	60±13	58±11	57±15	57±16

Supplementary Table 2: Mean values and standard deviations of the nTMS parameters at T1(1 month) and T2 (three months) after the stroke. MT indicates motor threshold as a percentage of the maximum stimulator output. Short intracortical inhibition (SICI) and intracortical facilitation (ICF) are given as normalized values; actual amplitude values have been divided with the MEP amplitude elicited by a single-pulse nTMS.

	Lesioned Hemisphere			Non-lesioned Hemisphere			
	MT	SICI	ICF	MT	SICI	ICF	
T1	60±13%	0.8±0.6	3.6±2.1	57±15%	6.5±15.7	29.9±95.46	
T2	58±11%	2.4 ± 5.2	2.5±1.5	57±16%	1.0±1.1	2.4±3.0	

Supplementary Table 3: Mean values and standard deviations of the MEG parameters at T1(1 month) and T2 (three months) after the stroke. Event-related desynchronization (ERD) and event-related synchronization (ERS) are given as a percentage of the prestimulus baseline amplitude in the selected frequency band. SI indicates the source strength of the somatosensory evoked fields elicited by stimulation of digit 2 (in nAm), and SIhr the distance of the representations of digit 1 and 5 in he hand somatosensory cortex (in mm). Values indicated with * differ significantly at p < .05, those indicated with ** differ at p < .003.

	Lesioned Hemisphere				Non-lesioned Hemisphere			
	ERD%	ERS%	SI (nAm)	SIhr (mm)	ERD%	ERS%	SI (nAm)	SIhr (mm)
T1	32±14	46.±31*	25 ±11*	12.±3**	35±10	63.±32*	32±13*	10±3**
T2	36±11	47±32	22 ±14	10.±3	37±13	61 ± 35	23 ± 22	10±3