

Kilanczyk et al. Pharmacological inhibition of spinal cord injury-stimulated ribosomal biogenesis does not affect locomotor outcome.

SUPPLEMENTARY DATA

Table S1. Design of SCI experiments with BMH-21

Figure S1. Lists of 2167 (4 h post-SCI) or 4652 (72 h post-SCI) significantly affected genes from data set GEO GSE5296 were analyzed for gene ontology term enrichment as described for Fig. 1B except for A top 24 “biological process” GOs were shown as only 5 or 1 “cellular component” or “molecular function” GO’s passed the significance threshold ($q < 0.05$). Note that unlike at 24 h, only one translation/ribosome associated term was enriched at these time points (“nucleolus”, marked in red, 4 h post SCI). Conversely, transcription- or cell proliferation-associated GO’s were most represented at 4- or 72 h post injury, respectively.

Figure S2. Adult rat spinal cord OPCs were cultured in a 96-well plate and treated as indicated. MTT survival assay was performed 24 h later. BMH-21 did not affect OPC cell number suggesting its low toxicity in this white matter cells. Data represent the mean \pm SD of 9 sister cultures from three independent experiments, ns, $p > 0.05$ (u -test).

Table S1. Design of SCI experiments with BMH-21 (in all cases, 50 kdyn contusive SCI at T9 level was applied using the IH impactor).

EXPERIMENT	RNA study ^a		Locomotor study 1 ^b		Locomotor study 2 ^b	
Group designation	Vehicle control	BMH, 12.5 mg/kg	Vehicle control	BMH, 12.5 mg/kg	Vehicle control	BMH, 25 mg/kg
Starting/final animal number	3/3	3/3	10/8 ^c	10/10	11/9 ^c	10/10
Actual contusion force (kdyn, average±SD)	52.25 ±0.96 ^d	51.75 ±2.87 ^d	51.75 ±1.39 ^d	52 ±1.05 ^d	50.33 ±0.37 ^d	52 ±0.77 ^d
Tissue displacement (µm, average±SD)	533 ±75.6 ^d	493.5 ±32.3 ^d	587.6 ±88.92 ^d	533.7 ±129.86 ^d	581.56 ±51.24 ^d	520.5 ±16.2 ^d
Post SCI treatment (<i>i.p.</i> injections)	Vehicle at 1- and 24 h post SCI	12.5 mg/kg BMH-21 at 1- and 24 h post SCI	Vehicle at 1- and 24 h post SCI	12.5 mg/kg BMH-21 at 1- and 24 h post SCI	Vehicle at 1-, 24, and 48 h post SCI	25 mg/kg BMH-21 at 1-, 24-, and, 48 h post SCI

^a 3 mm-long segment spanning the injury site was collected at 72 h post SCI

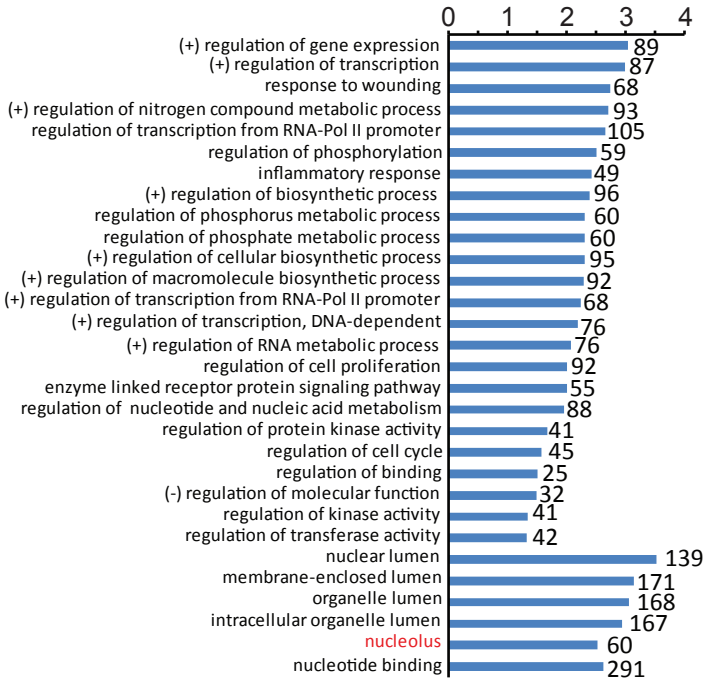
^b hindlimb locomotor function was assessed weekly at weeks 1-6 (study 1) or 1-5 (study 2) *post* SCI.

^c mortality occurred during the first week after SCI

^d no significant differences between groups were observed (p>0.05, one-way ANOVA)

A

GO Enrichment (-log (q)) @ 4 h post SCI



B

GO Enrichment (-log (q)) @ 72 h post SCI

