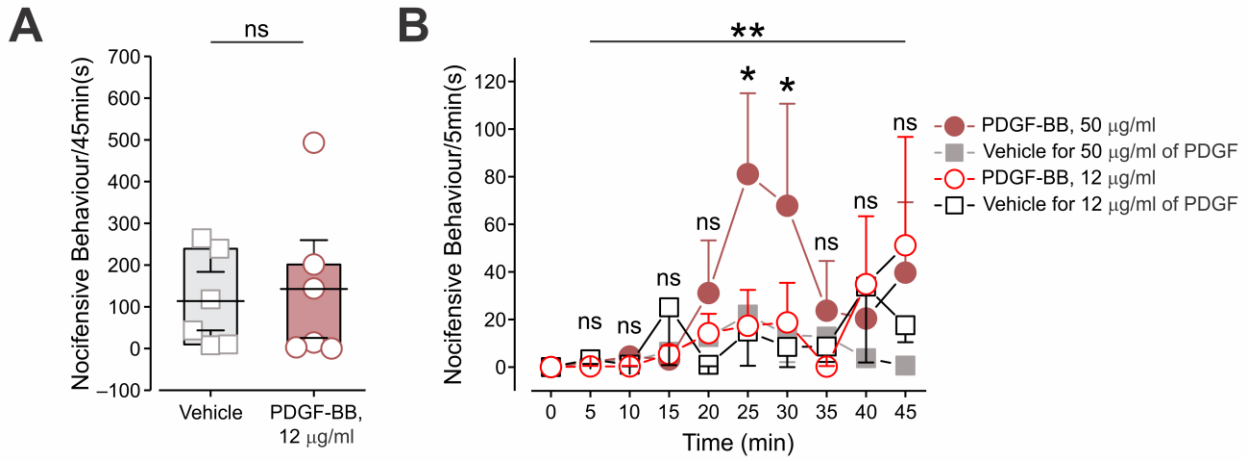
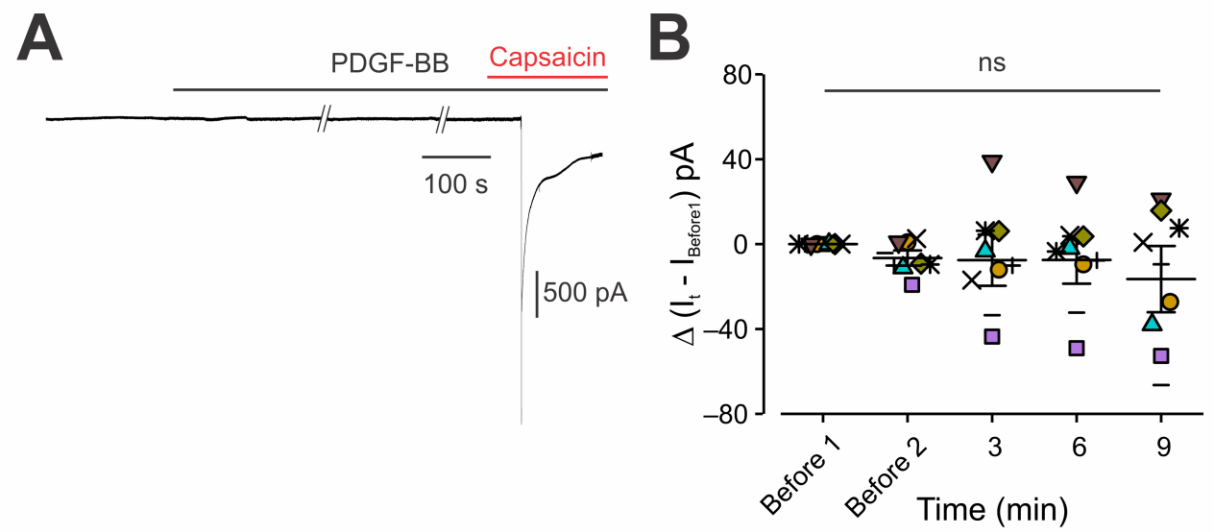
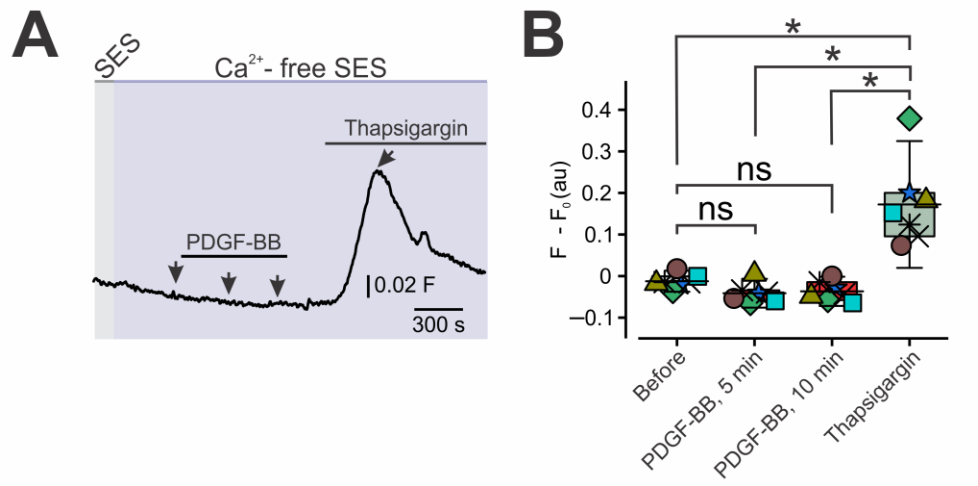


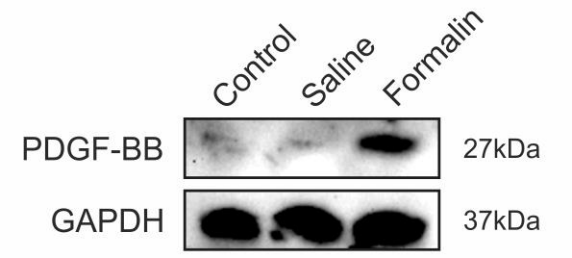
Supplementary Figure 1. (A). Graph comparing box plots and individual values of the total time (in seconds) spent by rats licking, biting, flinching and guarding the hind paw (nocifensive behavior) during 45 min following intraplantar injection of 12 μg/ml PDGF-BB or its vehicle (500 μM HCl). ns - not significant; Student's *t*-test; n = 6 rats per group. Box plots depict mean, 25th, 75th percentile and SD. **(B).** Mean ± SEM of duration of paw licking, biting, flinching and guarding per 5 min plotted versus time, following injection (at time "0") of 50 μg/ml PDGF-BB (*red circles*); 12 μg/ml PDGF-BB (*red open circles*); vehicle for 50 μg/ml PDGF-BB (*grey squares*) or vehicle for 12 μg/ml PDGF-BB. Two-way ANOVA with post hoc Bonferroni, n = 6 rats per group, ns - not significant; * - $p < 0.05$, ** - $p<0.01$.



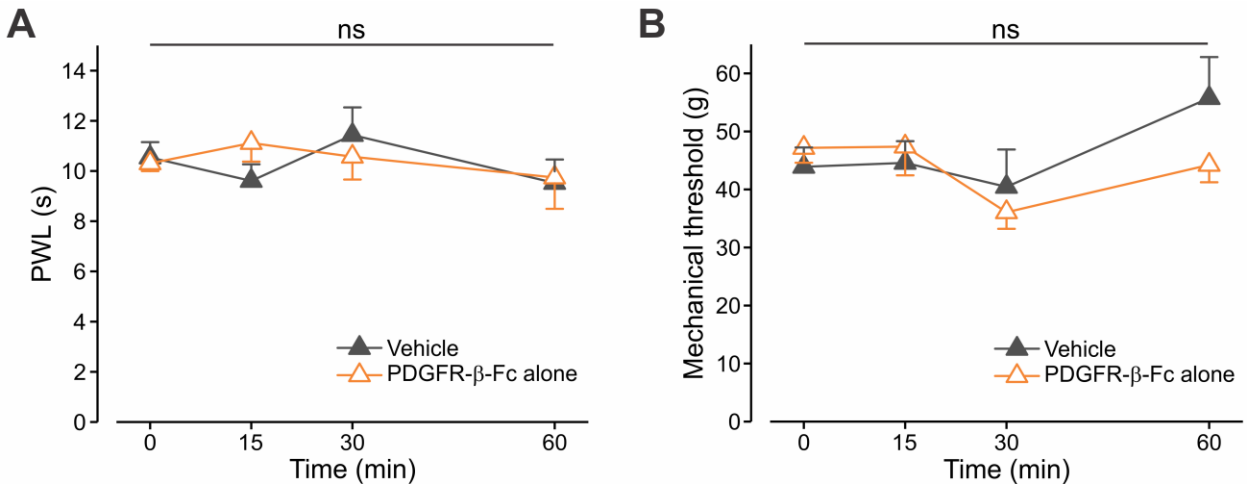
Supplementary Figure 2. (A). Representative voltage clamp recording from nociceptor-like DRG neuron. The membrane was held at –60 mV. Focal application of 125 ng/ml PDGF-BB for ~12 min (marked by horizontal bar) did not induce any inward current. Recordings were interrupted in order to examine cell excitability (marked by slashed lines). Cells fired normally upon current stimulation (*not shown*). Control bath application of 1µM capsaicin induced a prominent inward current. Representative of 9 out of 9 neurons. (**B).** Mean ± SEM and individual neuronal changes in inward current values, obtained every 3 min from free run voltage clamp recordings, at different time points before (Before 1 and Before 2) and after application of PDGF-BB (I_t), subtracted from the value before PDGF-BB application ($I_{Before1}$). ns – not significant, p = 0.39; One-way ANOVA, n = 9 neurons.



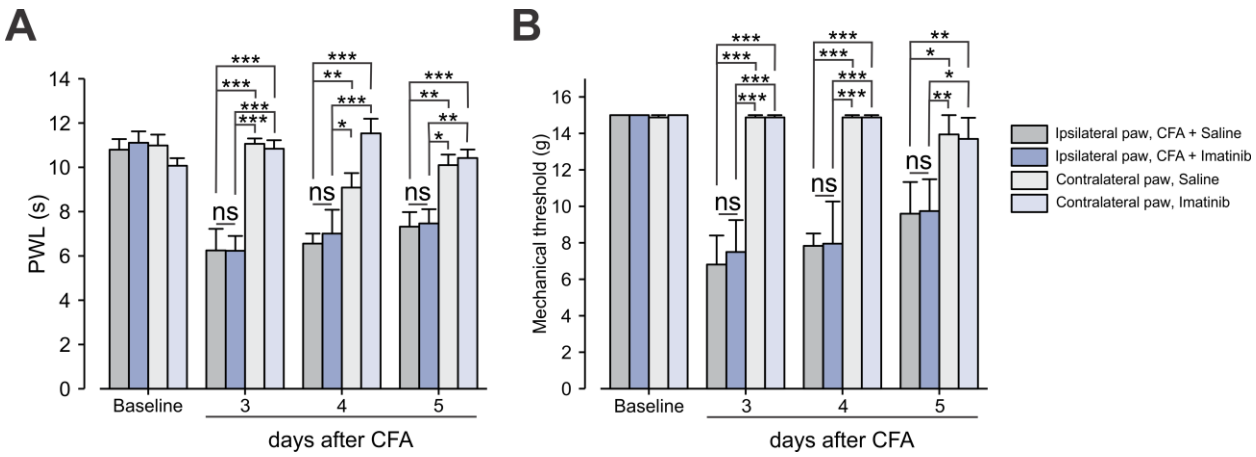
Supplementary Figure 3. **(A).** Representative trace of changes in $[Ca^{2+}]_i$, in cultured DRG neuron, measured as a changes in FURA-2AM fluorescent intensity. Neurons were initially perfused with standard external solution (SES), then switched to Ca^{2+}-free standard external solution (Ca^{2+}-free SES). Focal continuous puff application of 125 ng/ml PDGF-BB did not produced a release of Ca^{2+} from internal stores, yet bath application of 1 μM thapsigargin lead to substantial increase in $[Ca^{2+}]_i$. Representative of 7 out of 7 neurons recorded from 3 plates. Arrows indicated time points presented in *B.* **(B).** Box plots and individual paired values of the fluorescent intensities measured in the same neurons ~ 30 s before application of PDGF-BB (Before); 5 and 10 min after application of PDGF-BB and at times corresponded to the peak values after application of thapsigargin (marked by arrows in *A*). The fluorescent values were normalized to the fluorescent intensity measured 5 min before application of PDGF-BB ($F - F_0$). Box plots depict mean, 25^{th}, 75^{th} percentile and SEM. ns – not significant, * - $p<0.05$, RM one-way ANOVA followed by Bonferroni post-hoc test, n = 7 neurons.



Supplementary Figure 4. Western blot analysis showing the induction of PDGF-BB following intraplantar injection of 2% formalin compared to saline (vehicle) or control (non-injected) rats. Representative data of one of two independent experiments for each group are shown.



Supplementary Figure 5. The changes in thermal (radiant heat) paw withdrawal latency (PWL, **A**) and mechanical threshold (electronic von Frey, **B**) following intraplantar injection of 500 ng/40 µl PDGFR-β-Fc alone (*light orange triangles*) as compared to injection of vehicle (*grey triangles*); n = 6 rats per group, ns – not significant; RM two-way ANOVA with post hoc Bonferroni.



Supplementary Figure 6. The changes in thermal (radiant heat) paw withdrawal latency (PWL, **A**) and mechanical threshold (von Frey filaments, **B**) following the intraplantar injection of CFA to the left hindpaw and measured both ipsi- and contralateral to the CFA injection site. On days 3, 4 and 5 after CFA injection animals received intraplantar injections of either imatinib (*blue - ipsilateral, light blue - contralateral*) or saline (*grey - ipsilateral, light grey - contralateral*) both ipsi- and contralateral to the injection site. ns – not significant, * - $p<0.05$; ** - $p<0.01$; *** - $p<0.001$, RM two-way ANOVA followed by Bonferroni post-hoc test, n = 6 animals per group.

Supplementary Table 1. Parameters of excitability of nociceptor-like DRG neurons before and after local application of vehicle

	Before	Vehicle	p values
Threshold (mV) (n=5)	–29.86 ± 4.41	–29.13 ± 5.32	p = 0.8
AP_{Max} (mV) (n=5)	46.55 ± 1.25	45.8 ± 2.79	p = 0.82
Half-width (ms) (n=5)	3.07 ± 0.66	3.41 ± 0.8	p = 0.47
Max. dV/dt (mV/ms) (n=5)	75.69 ± 16.89	75.07 ± 25.41	p = 0.95
R_{Input} (MΩ) (n=5)	445.16 ± 82.55	528.2 ± 33.23	p = 0.39
***f*-I slope** (n=5)	0.035 + 0.013	0.032 + 0.015	p = 0.83
V_{Rest} (mV) (n=5)	–54.62 ± 2.88	–55.81 ± 3.94	p = 0.56

means ± SEM

Supplementary Table 2. Quantification of PDGFR-β staining in DRG

	Sample 1	**Sample 2**
CGRP$^+$ neurons		
CGRP$^+$ neurons (total)	42	31
CGRP$^+$ + PDGFR-β$^+$ neurons	40	31
%	95	100
IB4$^+$ neurons		
IB4$^+$ neurons (total)	38	32
IB4$^+$ + PDGFR-β$^+$ neurons	34	32
%	89	100
NF 200$^+$ neurons		
NF 200$^+$ neurons (total)	59	54
NF 200$^+$ + PDGFR-β$^+$ neurons	21	21
%	36	39
NF 200$^+$ neurons (larger than 30 μm)		
Large NF 200$^+$ neurons (total)	27	11
Large NF 200$^+$ + PDGFR-β$^+$ neurons	5	0
%	19	0