Table SIII. *Multiple regression analysis of the correlation between ratings and activation during the "scratch bouts" (β-values derived from the general linear model, single studies) in the placebo experiments, for the independent variables: "itch relief by scratching", "itching", "burning", "stinging", "pricking"*

ROI	Number of ratings	Adjusted R^2	Ratings	T	*p*
Capsaicin					
BA40 left	2	0.618	Burning	−4.945	<0.000
			Relief by scratching	3.628	<0.003
Posterior insular cortex right	3	0.581	Burning	−3.823	<0.002
			Stinging	2.832	<0.015
			Itching	−2.519	<0.027
Caudatus left	2	0.466	Burning	−3.508	<0.004
			Pricking	2.506	<0.026
Hippocampus right	1	0.286	Itching	−2.647	<0.019
Caudatus right	1	0.263	Stinging	−2.521	<0.024
MCC right	1	0.244	Burning	−2.418	<0.030
Thalamus right	1	0.208	Itching	−2.220	<0.043
Putamen right	1	0.203	Burning	−2.197	<0.045
Histamine					
Operculum left	2	0.669	Itching	5.288	<0.000
			Stinging	2.693	<0.018
BA40 left	1	0.407	Relief by scratching	3.361	<0.005
MCC left	1	0.367	Pricking	3.115	<0.008
Hippocampus left	1	0.352	Relief by scratching	3.026	<0.009
Posterior insular cortex right	1	0.344	Pricking	2.980	<0.010
Operculum right	1	0.326	Pricking	2.872	<0.012
Anterior insular cortex left	1	0.279	Pricking	2.611	<0.021
Posterior insular cortex left	1	0.271	Itching	2.566	<0.022
Amygdala right	1	0.23	Relief by scratching	2.343	<0.034
MCC right	1	0.23	Pricking	2.341	<0.035
Lateral front BA46 right	1	0.224	Stinging	2.307	<0.037
Caudatus left	1	0.217	Relief by scratching	2.270	<0.040
Amygdala left	1	0.197	Relief by scratching	2.163	<0.048

The 23 ROIs selected were those that showed significant activations during the itch-scratch cycle under histamine and placebo medication (see Table SI[1]).

ROI: region of interest (dependent variable in the multiple regression analyses); Number of ratings: number of ratings contributing significantly to the multiple regression model; Adjusted R^2: variance explained by the model; Ratings: rating quality contributing significantly to the model; T: *t*-values of the respective rating within the model. A positive *t*-value shows a positive correlation of this rating with the blood-oxygen-level dependent changes (β-value) of the ROI, negative *t*-values conversely. *p*: significance level of the respective *t*-value.