

BASIC INFORMATION ON SUB-PROJECT

NAME OF PROGRAMME/FUND	Scholarship Fund - Sciex NMS ^{ch}
RESEARCH FIELD AND OTHER RESEARCH FIELDS INVOLVED (if applicable)	General Biology
TITLE OF THE SUB-PROJECT	Evolutionary mechanisms of complex social behaviour - generalized reciprocity in wild-type Norway rats
REGION OF THE CZECH REPUBLIC (according to the location of the home institution)	South-Bohemian Region
GRANT AMOUNT SPENT	48 268,55 CHF
INTERMEDIATE BODY	Swissuniversities
HOME INSTITUTION	University of South Bohemia, Faculty of Natural Sciences
HOST INSTITUTION	University of Bern Institute of Ecology and Evolution
NAME OF THE FELLOW	Petra Lantová

<p>ABSTRACT OF THE SUB-PROJECT</p>	<p>This study aims to unravel evolutionary, physiological and behavioural mechanisms responsible for the propensity to help a social partner contingent on received help. Previous work has revealed that humans and Norway rats behave cooperatively in a prisoner's dilemma game by applying the simple rule 'help anyone, if helped by someone'. This generalized reciprocity has been shown to create evolutionarily stable levels of cooperation and was hypothesized to be widespread in nature, causing cooperation between non-relatives on the basis of very simple cognitive means. Several neuropeptides such as oxytocin and serotonin have been shown to influence the cooperative propensity of humans and rats. Our aim is to check by experimental application the potential role of candidate neuromodulators in the regulation of helping propensity, in dependence of positive or negative social experience with known or unknown conspecifics. Our experimental model will be wildtype Norway rats that have been shown to be ideally suited for the planned experimental paradigm.</p>
<p>DATE OF REALISATION OF THE FELLOWSHIP</p>	<p>1.6.2011 - 30.11.2011</p>
<p>MORE INFORMATION ON THE PROGRAMME</p>	<p>www.sciex.ch</p>