

BASIC INFORMATION ON SUB-PROJECT

NAME OF PROGRAMME/FUND	Scholarship Fund - Sciex NMS ^{ch}
RESEARCH FIELD AND OTHER RESEARCH FIELDS INVOLVED (if applicable)	Basic Biological Research, Basic Medical Sciences
TITLE OF THE SUB-PROJECT	Lewis-Acid Catalyzed Inverse Electron-Demand Diels-Alder Reaction of Cinnolins – A New Entry for the Efficient Preparation of Steroids
REGION OF THE CZECH REPUBLIC (according to the location of the home institution)	Olomouc Region
GRANT AMOUNT SPENT	135045,45 CHF
INTERMEDIATE BODY	Swissuniversities
HOME INSTITUTION	Palacky University Olomouc, Faculty of Sciences
HOST INSTITUTION	Basel University, Department of Chemistry
NAME OF THE FELLOW	Miroslav Šíša

ABSTRACT OF THE SUB-PROJECT	<p>In this research proposal the expertise in synthetic organic chemistry of the group of Dr. H. Wegner (Basel) is combined with the experience on the biological activity of steroids in the group of Prof. Dr. Strnad (Olomouc). Based on a new reaction, a Lewis-acid catalyzed inverse electron-demand Diels-Alder reaction recently published by the group of Dr. Wegner, a new strategy for the assembly of the steroid skeleton will be developed. With this new methodology new steroidal analogues of the Estradiol family will be prepared and their structure-activity relation investigated together with the group in Olomouc. With this approach new biological active compounds, e.g. in the area of cancer, might be identified. Also, with access to a wide range of derivatives studies on the mechanisms of action of this interesting class of molecules are possible.</p>
DATE OF REALISATION OF THE FELLOWSHIP	19.9.2011 - 18.3.2013
MORE INFORMATION ON THE PROGRAMME	www.sciex.ch