



European Society of Contraception and Reproductive Health

ESC Central Office - Opalfeneweg 3 - 1740 Ternat - Belgium

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Grant application form second half year 2014 Seeking ESC support for a PROJECT

Introduction

The ESC will provide funding to support an individual, group, institute or organisation with a project related to the aims of the ESC. Examples include: research, audit, review, needs assessment. The money **MUST** be used for a definite project within a definite time period.

Application

Please use this application form. Note sections with a maximum word count. Forms will be returned if the word count is exceeded.

If granted, the project must start within 12 months and must be completed within 3 years, with a final report sent to ESC within 6 months of completion.

A detailed budget including salary costs, overheads etc should be attached as an appendix to the application form.

Who can apply?

Applicants must be paid-up ESC members.

Applicants should be Europeans. However, a European applicant is allowed to submit a project that will take place outside Europe.

Deadline

Applications **MUST** be received at ESC Central office by **31 December 2014**.

Budget

35,000 euro for applications (projects and courses) received between 1 July and 31 December 2014. The ESC may not be in a position to fully fund all applications.

Part A Name of the applicant requesting the funding

Name of applicant: **Gabriele Merki**

Job title: Head of Family Planning

Address: Clinic for Reproductive Medicine, University Hospital Zürich, CH-8091 Zürich, Switzerland

Tel no.: 0041-44-2555001

Email: Gabriele.merki@usz.ch

Date of submission of this form November 24th

Part B Proposed project

Name of the person responsible for the project (If different to the person named in box A):

Susanne Wegener

Name of person: Susanne Wegener

Job title: Attending Physician

Address: Department of Neurology, University Hospital Zurich, Frauenklinikstrasse 26, 8091 Zurich, Switzerland

Phone: 0041 44 255 1111

Email: Susanne.Wegener@usz.ch

Part C Background of the project – narrative summary

Title of the project: **Neuroprotective properties of desogestrel**

Comprehensive description of the project (max 200 words):

The natural progestin progesterone has been shown to be neuroprotective in animal models of brain injury, including brain trauma and ischemia [1, 2]. The protective effects seem to be mediated by binding to progesterone receptors, which are abundantly expressed in the brain [3]. Desogestrel is a third generation progestin, which is widely used as progestin-only contraceptive (POC). A major advantage of POC is that in contrast to combined contraceptives; they do not increase the cardiovascular risk. Furthermore desogestrel has been shown to reduce migraine frequency and intensity [4, 5]. On the other hand, female migraineurs are at increased risk for ischemic stroke. To date studies about potential protective or detrimental effects of desogestrel on brain injury, particularly stroke, are lacking. In the proposed project we aim to explore the potential neuroprotective effect of desogestrel in a rodent model of stroke. Infarct size and functional deficits will be analyzed in mice subjected to transient middle cerebral artery occlusion (MCAO) [6]. The effect of desogestrel applied at two doses and two application time points (before and after ischemic injury) will be compared to progesterone. Potential mechanisms of this effect will be further characterized.

1. Sitruk-Ware, R. and M. El-Etr, *Progesterone and related progestins: potential new health benefits*. Climacteric, 2013. **16 Suppl 1**: p. 69-78.
2. Gibson, C.L., B. Coomber, and S.P. Murphy, *Progesterone is neuroprotective following cerebral ischaemia in reproductively ageing female mice*. Brain, 2011. **134**(Pt 7): p. 2125-33.

3. Gofflot, F., et al., *Systematic gene expression mapping clusters nuclear receptors according to their function in the brain*. Cell, 2007. **131**(2): p. 405-18.
4. Merki-Feld, G.S., et al., *Desogestrel-only contraception may reduce headache frequency and improve quality of life in women suffering from migraine*. Eur J Contracept Reprod Health Care, 2013. **18**(5): p. 394-400.
5. Scala, C., et al., *Drug safety evaluation of desogestrel*. Expert Opin Drug Saf, 2013. **12**(3): p. 433-44.
6. Koizumi, J., et al., *Experimental studies of ischemic brain edema, I: a new experimental model of cerebral embolism in rats in which recirculation can be introduced in the ischemic area*. Japanese Journal of Stroke, 1986. **8**: p. 1-8.

When would it start / finish? (Max 20 words)

The project is expected to start as soon as financial support is available (if possible July 2015) and planned for the duration of one year.

Where will it take place – country / town, establishment? (Max 20 words)

University of Zurich, Switzerland, at the laboratory facilities of the University Hospital (Dept. of Neurology). Frauenklinikstrasse 26, 8091 Zurich.

Objectives and needs identified. (Max 20 words)

We request funding for 50% of the salary of a PostDoc with this project. The requested money will cover a 4 months period. In addition, we request 1200 Euro for consumables (lab equipment, animal care).

Sector in the area of contraception, sexual and reproductive health:

Protective effects of progestin-only contraceptives

Is it a 'new' project? Yes/No

Yes

If extension of an existing programme, provide information on original programme (Max 50 words)

What outcomes will be measured? List. (Max 20 words)

Outcome parameters are infarct volume, functional deficits affecting sensorimotor function (tested in the sticky tape test and in a composite neurological score) and expression of neuroprotective proteins.

Do you foresee any reasons (political, climatic, etc) why this project may be adversely affected? (Max 20 words)

No.

Part D Financial related information

Are there other partners or organisations supporting this same project? If so, list.

We will apply at the Swiss headache society for support

Have you already obtained any funding towards this project? (If yes or still awaiting a response, please give details) (Max 20 words):

No

How much money are you requesting (up to a maximum of 5% can be used to cover overhead costs)? An overview of the budget must be provided here (max 50 words) and a detailed budget should be attached as an appendix to the application form.

We request funding for 4 months of a 50% PostDoc salary (13782.63 Euro) and 1217.36 Euro for consumables (including overhead), amounting to 15.000 Euro in total.

Will this be part of a larger fund or stand alone? (Max 20 words)

We will apply for additional support from the headache society.

Who will oversee the budget & keep accounts?

Dr Susanne Wegener, Dept. of Neurology, University Hospital Zurich, Frauenklinikstrasse 26, 8091 Zurich

Part E Follow-up

I / We, as responsible agents for this project, agree to the following 6 points:

I/We agree that all monies will be spent appropriately	X
I/We agree to advise you at the earliest time if this project is delayed or cannot be completed	X
I/We agree to provide a report to the ESC within 6 months of the end of the project and yearly, if the project lasts longer than 1 year.	X
I/We agree to present the ESC treasurer with a detailed budget at the end of the project. <i>(if the project is longer than 1 year, the funding may be awarded in stages and be dependent on appropriate reporting)</i>	X
I/We agree that if you need to make any significant changes to the duration, contents or funding of the project after it has been awarded, I/we will advise the ESC Treasurer.	X
I/We agree to acknowledge the ESC as a donor in any publications and oral communications resulting from this project. Ideally any manuscript should be sent to the ESC journal in the first instance.	X

Gabriele Merki

Signed Date Zürich, Nov. 25th 2014

Name PD Dr Gabriele Merki

Please return this form (by email) to:

ESC Central Office
Opalfeneweg 3
B-1740 Ternat, Belgium
Tel +32 2 582 08 52
Fax +32 2 582 55 15
info@escrh.eu

Appendix 1 : Detailed budget for proposed project

Overall costs of the proposed project (in Euro):

Salaries:

50% for Postdoctoral researcher (LK18/LS03) for 1 year: 39316.31

Consumables:

Purchase, shipment and housing of animals: 3000

Antibodies, staining and surgical material: 1500

Overall estimated costs : 43816.31

Requested funding from ESC (in Euro):

Salaries :

Postdoctoral researcher (LK18/LS03)

50% of monthly salary (pre-tax): 3445.66 Euro x 4 13782.64

Consumables :

Purchase, shipment and housing of animals,
antibodies, staining material: 1217.36

Overall funding requested from the ESC : 15000.00