APPLICATION GUIDELINES

Online application form

To process your application, you must complete the online form following the guidelines provided below.

All fields marked with a **red asterisk** in the form are mandatory—pay particular attention to the e-mail address provided. In some fields, specific details are included; please follow the examples attentively.

Upon registration you will receive a **reference code**. You need to keep this code for future use.

Abstract Format

Abstract submission is mandatory. This abstract should refer to the topic that you are likely to present at the School (it can also be the abstract of a recent publication, poster or application that indicates what you are working on). The abstract should be in English and structured as follow.

Title. The title must start in uppercase and continue in lowercase, except for conventional terms (ATP, DNA, NFκB, etc). Example:

This title is written correctly
This Title is Not Properly Written
ALSO THIS TITLE IS WRONG

Authors.If more than one author (but only in that case), underline your name (the presenting author, in whatever position you appear in the author list) and use commas to separate the author names; do not use 'and' before the last author. Write your name and surname in full; for any other authors use initial(s) for the first name(s) followed by the surname. If more than one affiliation (but only in that case), use sequential superscript numbers to identify each institution. Example:

Mario Rossi[1], J. Doe[2], F. Bloggs[1,2]
[1]Dept Biomembranes, Golgi & Veratti Univ., Pavia, Italy
[2]Dept Bioblast Analyses, Altmann Univ., Leipzig, Germany

Abstract text. Keep the abstract text to **within 3000 characters, spaces included**. **If this text is too long, your abstract submission will fail**. Subdivide the text in *Background & Aims*, *Methods*, *Results*, and *Conclusion*. Explain abbreviations in the text when they are used for the first time, except common abbreviations (*e.g.*, ATP, DNA, RNA, NMDA, c-fos, etc). In *Methods*, if applicable, state the approval of the research project by the relevant ethical or legal

committee(s). Provide an acknowledgment stating the funding sources. You may cite up to a maximum of two journal references.

Structured CV

Please include the following information in the CV. The CV is an integral part of your application.

- Study of which subject(s), when, how long, at which University?
- Which types of examination planned or passed, when, where?
- Name(s) of mentor(s)?
- Thesis work (Ph.D., Master, Diploma, Bachelor), title, when started/submitted? Accepted?
- Abstract of thesis if completed or nearly completed?
- Postdoc/other positions held? When? Where?
- Special experience in the field of pain (research, clinical, course attended, reading textbook or journal papers)
- Honors/Awards received?
- Fellowship or other status of guest scientist held, when, where? In foreign country?
- International /National Congresses/Meetings attended, when, where? Presentation(s) given? Title(s) of presentation(s)?
- List of publications in English or mother tongue. Published abstracts?
- Type of training/experience of English, when, how long? English course? Level of understanding/speaking?
- Special interests or hobbies outside the study subject?

N.B. You will need to prepare your CV as a PDF file and upload it through your personal ***myEPS2024*** page (this page is available only **after** you submit your application).

If you have publications, you should also enter the details of each one (year of publication, journal, etc) through your personal ***myEPS2024*** page. Add these publications even if they are also listed in the CV file mention above.

Letter of recommendation

In order to be considered, applications must be complemented by a letter of recommendation from the applicant's mentor. This should be e-mailed—as a PDF file, **within 28 February 2024**—to EPS.2024@azuleon.org **by your mentor**. The PDF file should be labelled as *Applicant'sSurname_ReferenceCode_EPS2024.pdf—e.g.*, ***Smith_a1b2_EPS2024.pdf***.

Sample Abstract

C-Fos activation in brainstem neurons expressing neurokinin NK1 and μ-opioid receptors by controlled evoked movement of a chronically inflamed joint in the rat

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Background and Aims. Previous studies have shown that chronic pain induces changes in the neurochemistry of spinal dorsal horn neuronal circuits. Here we investigate brainstem regions using the expression of c-*fos* protooncogene as a result of passively moving an inflamed joint. We further studied the expression of NK1 and μ-opioid receptors in the areas that presented significant increases in c-*fos* expression.

Methods. Male Wistar rats were injected in the tibiotarsal joint with either 50 μl (microlitre) of saline (n=6) or 50 μl of Complete Freund's Adjuvant (CFA, n=12). The animals were daily handled for 14 days in order to get habituated to the experimenter. The animals were divided in three groups according to treatment: "control group" (CON) injected with saline and with no extra movement; "monoarthritic group with no extra movement" (MANM), injected with CFA and with no extra movement; and "monoarthritic group with extra movement" (MAEM), injected with CFA and subjected to 4 min of continuous flexions/extensions of the inflamed joint. After either treatment, rats were immediately anaesthetised with isoflurane and perfused. The research plan was approved by the Ethical Committee of the University of Oporto.

Results. No differences in the number of c-*fos* immunoreactive (IR) cells were found between groups CON and MANM. In comparison to the other groups, the MAEM group presented an increase of Fos-IR neurons in the caudal ventrolateral medulla, lateral, dorsal and ventral reticular nuclei, spinal trigeminal nucleus, nucleus of the solitary tract, gracile, cuneate, ambiguous, vestibular, lateral paragigantocellular nuclei; gigantocellular and rostroventrolateral reticular nuclei; prepositus nucleus and A5 noradrenergic area. In what concerns double-IR neurons, no differences were found between the groups, in the number of Fos neurons expressing either NK1 or μ-opioid receptors.

Conclusions. Moving a chronically inflamed joint induces functional activation of several areas of the endogenous pain control system, confirming the importance of the system in chronic pain. NK1 and μ-opioid receptors do not appear to be involved in supraspinal processes of chronic pain, being in contrast with results obtained in acute pain conditions (Pinto et al., 2003).

Supported by FCT project and Gulbenkian Pain Program

Reference

Pinto M. et al., 2003 Noxious-evoked c-fos expression in brainstem neurons immunoreactive for GABAB, μ-opioid and NK-1 receptors. Eur. J. Neurosci., 17: 1393-1402