

iMPACT

Demonstrating the return on our investments
in faculty-based research



Dr. Jana Sawynok, Department of
Pharmacology at Dalhousie University

Rubbing Away the Pain New topical cream provides relief

By: Maria Dombrowsky

Neuropathic pain is a common condition in many patients suffering from diabetes, herpes, cancer, AIDS and other medical conditions. This pain is caused by an injury to part of the nervous system, and can result from trauma, infection, metabolic conditions, or as a toxic response. A Dalhousie University researcher has now given patients suffering from this type of pain hope with an analgesic cream that targets nerve-ending areas of pain.

Dr. Jana Sawynok developed this new topical treatment cream and recently signed one of Dalhousie's most significant licensing agreements with EpiCept to further test and market the drug. She says this cream has the potential to offer many benefits to patients, one being that it can be used in addition to oral pain killers as it will target different areas.

"The topical form of a drug poses many benefits," says Sawynok. "There are minimal systemic drug levels and less adverse effects, and the formulation can be used as an add-on to oral drugs."

Sawynok, Professor and Head of the Department of Pharmacology at Dalhousie University, has long held a vision to help solve a clinical condition problem. Her research on this new topical painkiller developed in 1997, and she completed her

portion of the work in 2000. EpiCept, a relatively small drug company in New Jersey then licensed out the product, and continued on with the clinical studies.

EpiCept has named this new product NP-1. It consists of a combination of amitriptyline and ketamine, which have been available in oral forms as pain killers in the past. NP-1 is a topical analgesic cream designed to relieve neuropathic pain with a small amount of adverse side effects.

"It is very gratifying as a scientist when you can contribute to the development of a therapeutic drug that will benefit so many people"

The early studies of NP-1 showed some mixed results, but when EpiCept increased the concentration of the active ingredients, the results were even more promising and effective. EpiCept is currently in phase III trials with medical testing of NP-1 for chemotherapy-induced neuropathy in the United States. The outcomes of this clinical research have been promising, and EpiCept is continuing its trials in hopes to have this product available soon.

"It is very gratifying as a scientist when you can contribute to the development of a therapeutic drug that will benefit so many people," says Sawynok.

The research that led to this was primarily funded by the Canadian Institutes of Health Research. Co-inventors on the project include Mike Esser, a graduate student at the time, and Allison Reid, a technician. The technology was bundled with work submitted by Dr. Bruce Frome in California.



AFMC

The Association of Faculties
of Medicine of Canada

265 Carling Avenue, Suite 800, Ottawa, Ontario K1S 2E1 | Tel: (613) 730 0687 | Fax: (613) 730 1196

WWW.AFMC.CA

Printed: December 2007

View more editions of iMPACT on our website at www.afmc.ca