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TRACKING TRENDS & PERFORMANCE IN BASIC RESEARCH

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2009 : November 2009 - New Hot Papers : Rolf-Detlef Treede &amp; Troels Staehelin Jensen Discuss Neuropathic Pain

## NEW HOT PAPERS - 2009

November 2009



Rolf-Detlef Treede & Troels Staehelin Jensen talk with *ScienceWatch.com* and answer a few questions about this month's New Hot Paper in the field of Neuroscience & Behavior.



**Article Title: Neuropathic pain - Redefinition and a grading system for clinical and research purposes**

Authors: Treede, RD;Jensen, TS;Campbell, JN;Cruccu, G;Dostrovsky, JO;Griffin, JW;Hansson, P;Hughes, R;Nurmikko, T;Serra, J

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(addresses have been truncated)

### SW: Why do you think your paper is highly cited?

Within the field of pain research, neuropathic pain is one of the most active research areas both in the basic and clinical sciences. We address the definition of the phenomenon "neuropathic pain" itself and provide a grading scheme based on positive identification criteria.

Whereas there is little doubt on the neuropathic nature of, e.g., painful diabetic neuropathy, this is less clear for different types of pain in multiple sclerosis, and highly controversial for the diffuse pain of fibromyalgia. Our paper describes a framework—definition and grading system—for reporting primary data on patients with possible, probable, or definite neuropathic pain.

### SW: Does it describe a new discovery, methodology, or synthesis of knowledge?

Our paper describes a method—grading system—based on a synthesis of knowledge. The 1994 definition of neuropathic pain published by the International Association for the Study of Pain (IASP Press®) had been criticized by several neurologists as being too vague.

We focused the definition by spelling out that neuropathic pain is a condition due to damage to the somatosensory system. The grading system is based on lines of evidence for the location and nature of that damage.

### SW: Would you summarize the significance of your paper in

## layman's terms?

Neuropathic pain results from damage to the warning system of the body that normally signals impending injury to organs or tissues. Patients with neuropathic pain typically exhibit a mixture of sensory loss—reduced responsiveness to external stimuli—with ongoing spontaneous pain and sometimes enhanced sensitivity to externally applied painful stimuli (hyperalgesia).

Our paper describes a refined definition for this type of pain together with a grading system. The grading system allows clinicians to communicate the level of evidence that they have obtained for a single patient on the neuropathic nature of the patient's pain complaint. Since treatment of neuropathic pain differs from that of other types of pain, better precision in diagnosis is expected to lead to a faster initiation of the appropriate treatment.



*Coauthor  
Troels Staehelin Jensen*

## **SW:** How did you become involved in this research, and were there any problems along the way?

Rolf-Detlef Treede:

This consensus process was initiated by Prof. Troels Jensen, and included the expertise of pain societies (IASP and its special interest group NeuPSIG) and neurological societies such as the European Federation of Neurological Societies (EFNS) and the American Academy of Neurology (AAN). As in any consensus process there was a heated scientific debate among coauthors on several aspects of our paper, which took a few years to resolve. We appreciate that this debate continued with the reviewers after submission of the manuscript, leading to further improvement in the phrasing of our statements.

## **SW:** Where do you see your research leading in the future?

We anticipate better communication among researchers and among clinicians, when they use the proposed grading scheme to indicate the level of certainty that the pain state they describe is neuropathic in nature. We hope to see many empirical studies using the grading system, so it can be revised on an evidence-based level in a few years' time.

## **SW:** Do you foresee any social or political implications for your research?

Yes, absolutely. If this proposal succeeds, neuropathic pain will ultimately be integrated into the nosology of neurological conditions, as headache already has. This should lead to more precise diagnosis of the neuropathic nature of a pain complaint, which in turn should guide a mechanism-based approach to pain therapy.

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KEYWORDS: MULTIPLE-SCLEROSIS; DIAGNOSTIC-CRITERIA; MECHANISMS; GUIDELINES; DEFINITION; SYMPTOMS; SIGNS.

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