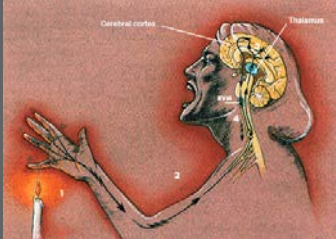




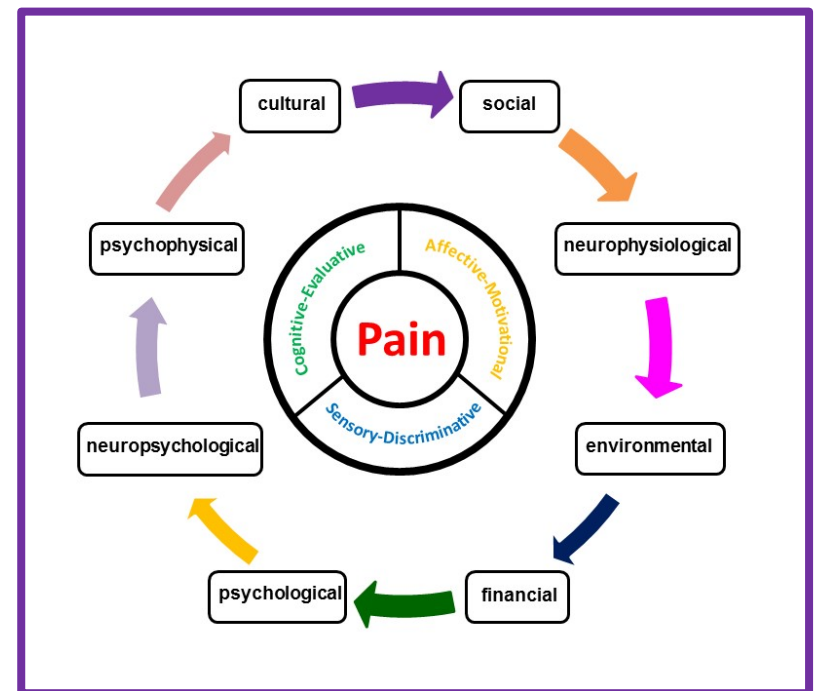
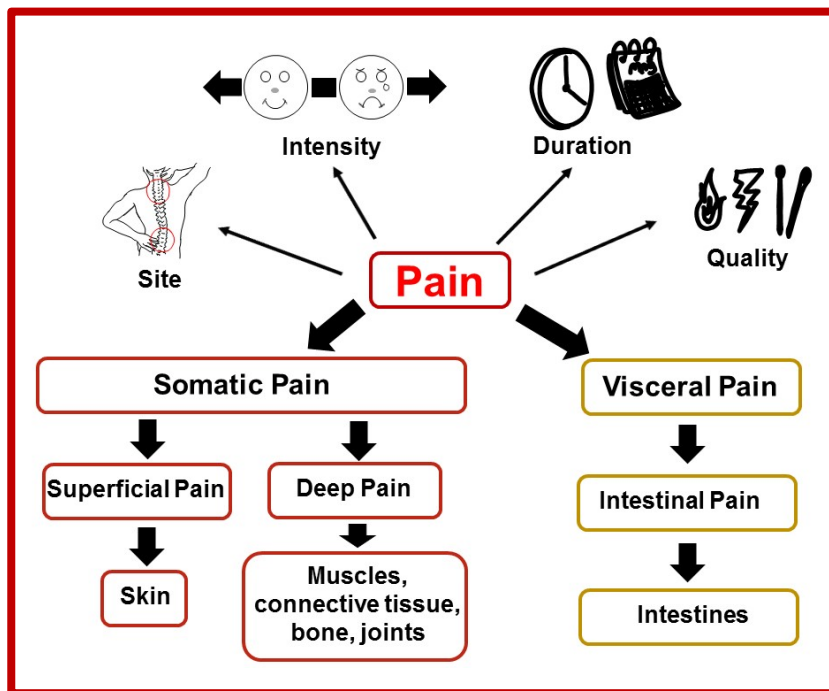
Panel Discussion: Pain Sciences  
and Practice  
Dr. Josee Guindon



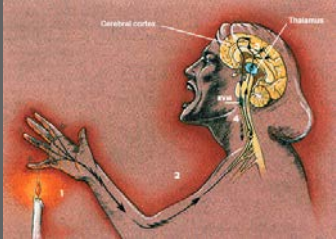
# Pain



**Pain** is an *unpleasant, complex, personal* and *subjective* experience that can range in intensity from slight, severe or indescribable



Blanton, Bergeson, Morgan & Guindon (2019) Ethanol and Pain Interactions  
In: The Neuroscience of Alcohol: Mechanisms and Treatment, Elsevier.



# Assessment of Pain



### McGill Pain Questionnaire

102 Words divided in 3 categories: sensory – affective – cognitive/evaluative

<p><b>Pain Rating Index</b> Sum of ranking of each words chosen in all 20 subclasses</p>	<p><b>Number of Words Chosen</b> Sum the words chosen in all 20 subclasses</p>	<p><b>Actual Pain intensity:</b></p> <ul style="list-style-type: none"> <li>• No Pain (0)</li> <li>• Mild (1)</li> <li>• Discomforting (2)</li> <li>• Distressing (3)</li> <li>• Horrible (4)</li> <li>• Excruciating (5)</li> </ul>
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### Visual Analogue Scale

No Pain |—————| Worst Possible Pain

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### Verbal Rating Scale

No Pain      Mild      Moderate      Severe

Score      0      1      2      3

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### Smile-Sad Faces Scale

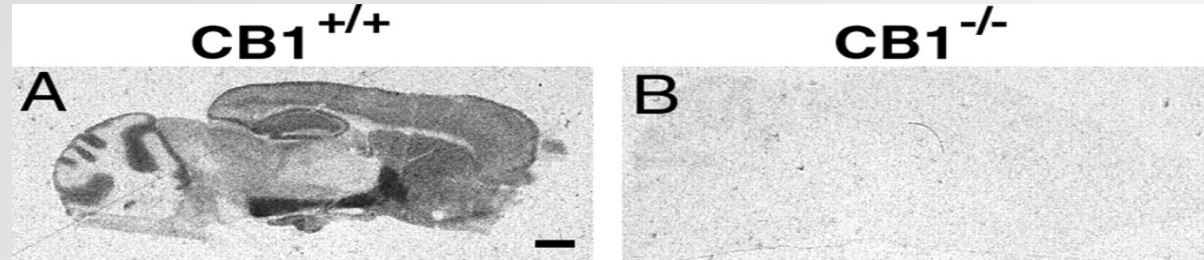
0      1      2      3      4      5

Blanton, Bergeson, Morgan & Guindon (2019) Ethanol and Pain Interactions  
 In: The Neuroscience of Alcohol: Mechanisms and Treatment, Elsevier.

# Cannabinoids and Pain

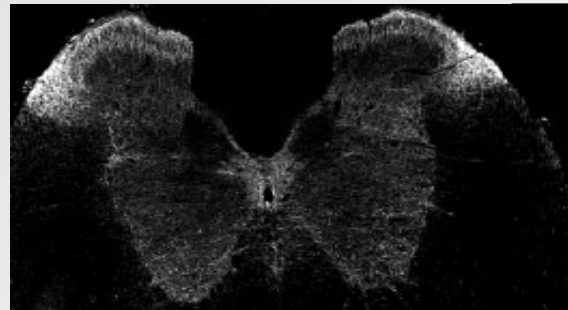


**central**



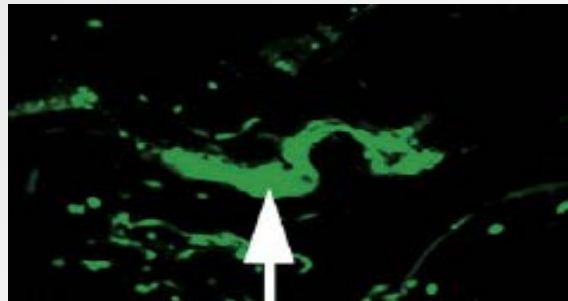
Zimmer A et al. (1999) *PNAS*

**spinal**

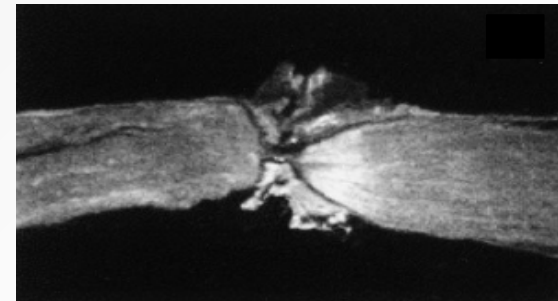


Farquhar-Smith et al. (2000)  
*Mol Cell Neurosci*

**periphery**

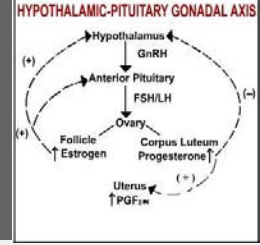
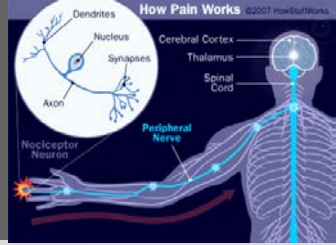


Ständer et al. (2005) *J Dermatol Sci*



Hohmann & Herkenham (1999)  
*Neuroscience*

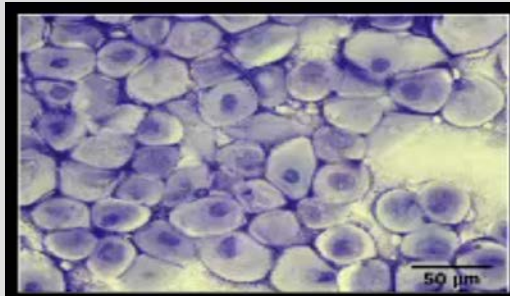
# Sex difference in pain and estrous cycle



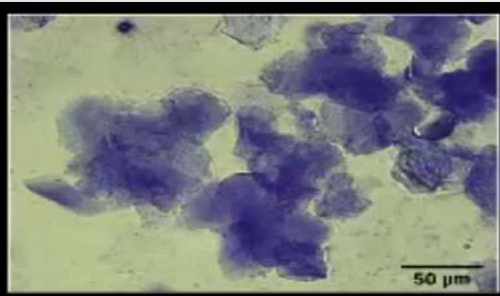
nucleated epithelial cells



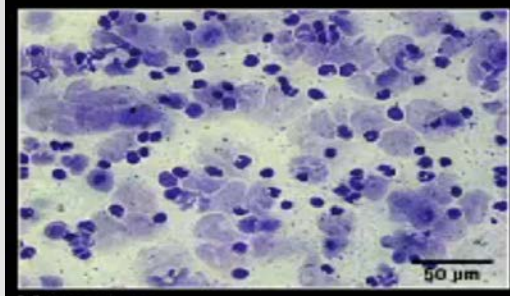
cornified squamous epithelial cells



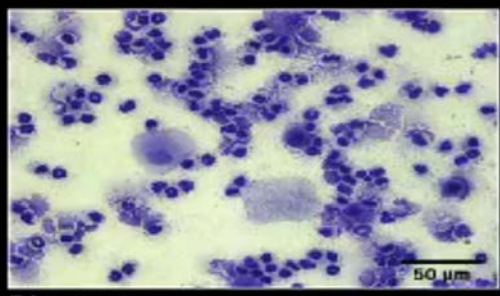
Proestrus



Estrus



Metestrus



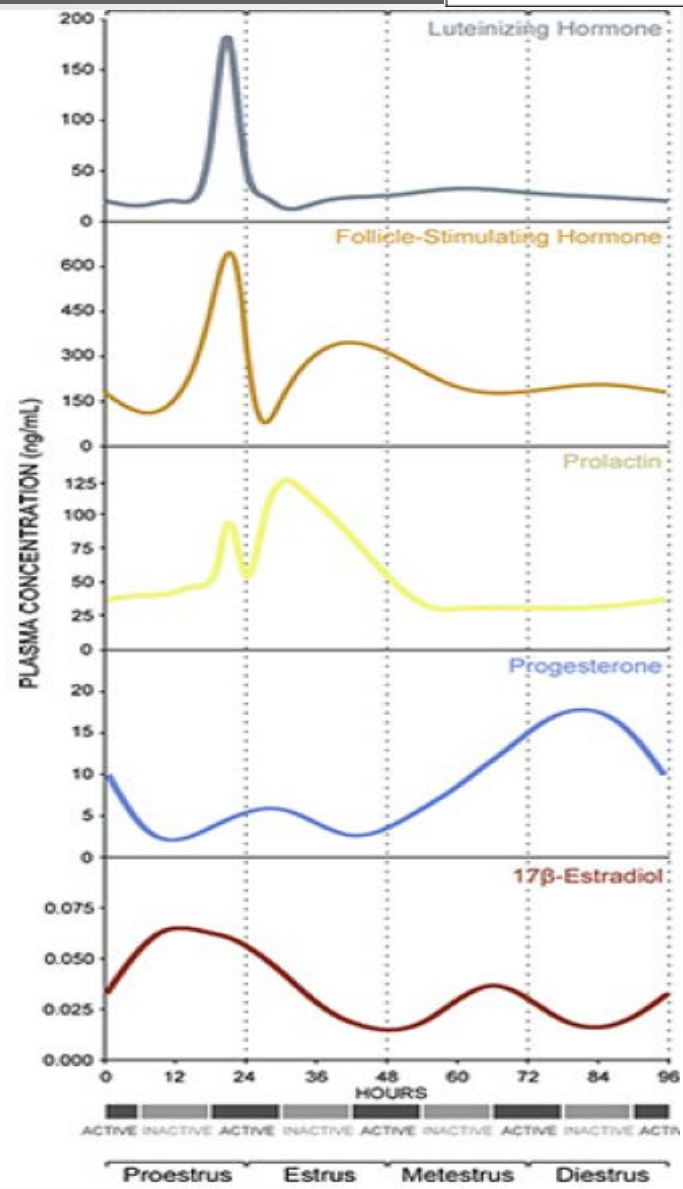
Diestrus



mix cell types predominance of leucocytes and few nucleated and/or cornified squamous epithelial cells



predominance of leucocytes

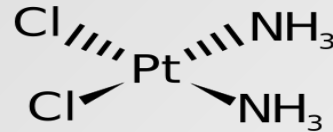
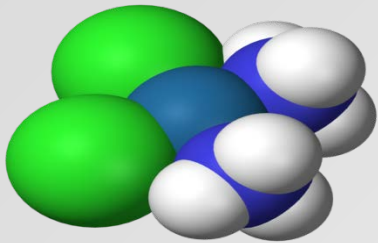


# Chemotherapy-induced neuropathy



## Neuropathy induced by chemotherapeutic agents

Platinum derived  
(**cisplatin**, carboplatin, oxaliplatin)



Cisplatin  
(5 mg/kg ip)  
1 X Week

## Mechanical Allodynia



## Cold Allodynia

