

## **KIRSTY BANNISTER**

62 St Elmo Road, W12 9DX. Mob: +44 (0)7964788547. Email: [kirsty.bannister@ucl.ac.uk](mailto:kirsty.bannister@ucl.ac.uk)

### **EMPLOYMENT**

<i>Date</i>	<i>Position</i>	<i>Department</i>	<i>Institution</i>
September 2017	Lecturer, Pharmacology	IoPPN	King's College London
2008 - 2017	Senior researcher	NPP	UCL

### **QUALIFICATIONS**

<i>Date</i>	<i>Qualification</i>	<i>Subject</i>	<i>Institution</i>
2004 - 2008	PhD	Epigenetic gene regulation	Imperial College London
2003 - 2004	Master of Research	Biomedical integrative sciences	Imperial College London
2000 - 2003	BSc (First Class Hons)	Pharmacology	UCL

### **FUNDING**

**April 2019 - April 2021, Springboard Grant** (Wellcome Trust and Academy of Medical Sciences). Total value: **£99,981**. Research project title: **Defining descending modulatory pathways that regulate spinal nociceptive processing**.

### **INTERNATIONAL STANDING**

#### **AWARDS**

I was presented the **IBSA 2017 Award for Pain Research/Medicine** in association with the European Journal of Pain and EFIC European Pain Federation for my original research article 'An investigation into the inhibitory function of DNIC in the neuropathic rat'.

#### **EDITORIAL BOARDS AND COMMITTEES**

- I am an Associate Editor for PAIN journal (invited December 2018)
- I am a member of the European Pain Federation EFIC Research Committee for Translational Research (invite July 2018)
- I am delivering a refresher course presentation at the 11th Congress of the European Pain Federation conference, Valencia, 2019

## **CONFERENCE SYMPOSIA**

<i>Date</i>	<i>Conference</i>	<i>Detail</i>
09/2019	EFIC Pain Congress, Valencia	Invited speaker
09/2018	IASP World Pain congress, Boston	Organiser/Chair/ Speaker
06/2018	Pain Therapeutics and Mechanisms, Sicily	Organiser/Chair/ Speaker
09/2017	EFIC Pain Congress, Copenhagen	Organiser/Chair/ Speaker
07/2016	Physiology 2016, Dublin	Invited speaker
06/2016	Pain Therapeutics and Mechanisms, Sicily	Invited speaker
09/2015	EFIC Pain Congress, Vienna	Organiser/Chair/ speaker

## **TEACHING**

My KCL academic year 2018-19 education database currently includes the following hours across 23 modules (of which 14 encompass pharmacology/neuropharmacology content):

- I. Teaching contact = **167**
- II. Preparation = **204**
- III. Organisational roles = **36**
- IV. Assessment and exams = **146**
- V. Personal tutee hours = **24**
- VI. Project student supervision hours = **210**

Total hours expected by final data database completion (August 2019) = **>850**

### **TEACHING INNOVATION:**

- I am leading discussion on 'small group teaching' as part of my 'educational research and innovation' programme in the KCL education centre
- HEA Fellowship submission date = June 2019

## **MATERNITY LEAVE**

July 2010 – May 2011  
May 2013 – March 2014

## **PUBLIC ENGAGEMENT**

I lead the 'West London Free School Primary' Science Enrichment Programme (September 2015-present). I secured funding from The Wellcome Trust in 2017/18/19 in order to run activities within the school for Science Week (affiliation with 'Flavour Sense Nation', 'Professor Bubbleworks' and 'Mother Nature Science').

## **PUBLICATIONS**

### **UNDER REVIEW**

Dickenson AH, Navratilova E, Patel R, Porreca F, **Bannister K**.  
*Supraspinal opioid circuits differentially modulate evoked activity of spinal and thalamic neurons in uninjured and neuropathic rats*. *Anaesthesiology*.

Cummins T, Kucharczyk M, **Bannister K**.  
*Under Pressure: A translational study using cuff algometry in rodent and man*. *Pain*.

### **IN PREPARATION**

Goncalves L, Dickenson AH, **Bannister K**.  
*Pre-operative pregabalin in an animal model of neuropathy: a back translational study*. Proposed submission journal: *Eur J Pain*.

Kucharczyk M, Dickenson AH, **Bannister K**.  
*Descending noradrenergic control plasticity in the progression of bone metastatic disease*. Proposed submission journal: *Br J Pharmacology*.

### **ACCEPTED**

**Bannister K**.  
*Descending pain modulation: Influence and impact*. *Current Opinion in Supportive and Palliative Care*.

**Bannister K**, Sachau J, Baron R, Dickenson AH.  
*Neuropathic Pain: Mechanism-Based Therapeutics*. *AR Pharmacology and Toxicology*.

Phelps CE, Navratilova E, Dickenson AH, Porreca F, **Bannister K**.  
*Kappa Opioid Signaling in the Right Central Amygdala Causes Hindpaw Specific Loss of Diffuse Noxious Inhibitory Controls (DNIC) in Experimental Neuropathic Pain*. *Pain*, 2019. [Epub ahead of print]

Lockwood SM, **Bannister K**, Dickenson AH.  
*An investigation into the noradrenergic and serotonergic contributions of diffuse noxious inhibitory controls in a monoiodoacetate model of osteoarthritis*. *J Neurophysiology*, 2019. 1;121(1):96-104

Gomstian L, **Bannister K**, Eyde N, Navratilova E, Robles D, Dickenson AH, Porreca F.  
*Morphine effects within the rodent anterior cingulate cortex and rostral ventromedial medulla reveal separable modulation of affective and sensory qualities of acute or chronic pain*. *Pain*, 2018. 159(12):2512-2521

Dalmolin GD, **Bannister K**, Goncalves L, Sikandar S, Patel R, Cordeiro MDN, Gomez MV, Ferreira J, Dickenson AH.  
*Effect of the spider toxin Tx3-3 on spinal processing of sensory information in naïve and neuropathic rats: an in vivo electrophysiological study*. *Pain Reports*, 2017. 6;2(4):e610

**Bannister K**, Qu C, Navratilova E, Oyarzo J, Xie JY, King T, Dickenson AH, Porreca F.  
*Multiple sites and actions of gabapentin-induced relief of ongoing experimental neuropathic pain*. *Pain*, 2017. 158(12):2386-2395

**Bannister K**, Dickenson AH.  
*The plasticity of descending controls in pain: Translational probing*. *J Physiology*, 2017. 1;595(13):4159-4166

**Bannister K**, Dickenson AH.  
*Hopes for the future of pain control*. *Pain and Therapy*, 2017. 6(2):117-128

**Bannister K**, Lockwood S, Goncalves L, Patel R, Dickenson AH.  
*An investigation into the inhibitory function of serotonin in diffuse noxious inhibitory controls in the neuropathic rat.* Eur. J Pain, 2017. 21(4):750-760

**Bannister K**, Dickenson AH.  
*What the brain tells the spinal cord.* Pain, 2016. 157(10):2148-51

**Bannister K**, Dickenson AH.  
*What do monoamines do in pain modulation?* Current Opinion Palliative Care, 2016. 10(2):143-8

**Bannister K**, Patel R, Goncalves L, Townson L, Dickenson AH.  
*Diffuse noxious inhibitory controls and nerve injury: restoring an imbalance between descending monoamine inhibitions and facilitations.* Pain, 2015. 156(9):1803-11

Little JW, Ford A, Symons-Liguori AM, Chen Z, Janes K, Doyle T, Xie J, Luongo L, Tosh DK, Maione S, **Bannister K**, Dickenson AH, Vanderah TW, Porreca F, Jacobson KA, Salvemini D.  
*Endogenous adenosine A3 receptor activation selectively alleviates persistent pain states.* Brain, 2015. 138(pt1):28-35

West SJ, **Bannister K\***, Dickenson AH, Bennett DL.  
*Circuitry and plasticity of the dorsal horn - toward a better understanding of neuropathic pain.* \*Joint first author. Neuroscience, 2015. 6;300:254-75

**Bannister K**.  
*Opioid-induced hyperalgesia: where are we now?* Current Opinion in Palliative Care, 2015. 9(2):116-21

**Bannister K**, Lee YS, Goncalves L, Porreca F, Lai J, Dickenson AH.  
*Neuropathic plasticity in the opioid and non-opioid actions of dynorphin A fragments and their interactions with bradykinin B2 receptors on neuronal activity in the rat spinal cord.* Neuropharmacology, 2014. 85:375-83

Falk S, **Bannister K**, Dickenson AH.  
*Cancer pain physiology.* Br J Pain, 2014. 8(4):154-62

Sikandar S, **Bannister K**, Dickenson AH.  
*Brainstem facilitations and descending serotonergic controls contribute to visceral nociception but not pregabalin analgesia in rats.* Neuroscience Letters, 2012. 519(1):31-6

**Bannister K**, Dickenson AH.  
*The double cross of morphine: Stopping OIH in its tracks.* Ann Palliat Med. 2012. 1(1):4-5

**Bannister K**, Sikandar S, Bauer CS, Dolphin AC, Porreca F, Dickenson AH.  
*Pregabalin suppresses spinal neuronal hyperexcitability and visceral hypersensitivity in the absence of peripheral pathophysiology.* Anesthesiology, 2011. 115(1):144-52

Rahman W, **Bannister K**, Bee LA, Dickenson AH.  
*A pronociceptive role for the 5-HT<sub>2</sub> receptor on spinal nociceptive transmission: an in vivo electrophysiological study in the rat.* Brain Research, 2011. 25;1382:29-36

Bee LA, **Bannister K**, Rahman W, Dickenson AH.  
*Mu-opioid and noradrenergic  $\alpha(2)$ -adrenoceptor contributions to the effects of tapentadol on spinal electrophysiological measures of nociception in nerve-injured rats.* Pain, 2011. 152(1):131-9

**Bannister K**, Dickenson AH.  
*Opioid hyperalgesia.* Current Opinion in Palliative Care, 2010. 4(1):1-5

Rahman W, Bauer CS, **Bannister K**, Vonsy JL, Dolphin AC, Dickenson AH.  
*Descending serotonergic facilitation and the antinociceptive effects of pregabalin in a rat model of osteoarthritic pain.* Molecular Pain, 2009.7;5:45

**Bannister K**, Bee LA, Dickenson AH.

*Preclinical and early clinical investigations related to monoaminergic pain modulation.* Neurotherapeutics, 2009.  
6(4):703-12