

**Ahmad A. Altarifi, DDS, Ph.D.**  
Associate Professor, Department of Pharmacology, Faculty of Medicine  
Jordan University of Science and Technology  
Irbid, Jordan

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## **Education**

2008-2013

**Ph.D.**

Neuroscience program / Department of Pharmacology and Toxicology  
Virginia Commonwealth University  
Dissertation: Effects of mu opioid receptor agonists on intracranial  
self-stimulation in the absence and presence of "pain" in  
rats  
Advisor: **S. Stevens Negus, Ph.D.**

1999-2004

**D.D.S.**

Jordan University of Science and Technology  
Irbid-Jordan

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## **Professional Memberships**

Jordanian Pain Society

College on Problems of Drug Dependence (CPDD)

American Society of Pharmacology and Experimental Therapeutics (ASPET)

Society of Neuroscience (SFN)

International Narcotics Research Conference (INRC)

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## Teaching experiences:

- 2013-present: Pharmacology for medical students; JUST
  - 2013-present: Pharmacology for dental students; JUST
  - 2013-present: Pharmacology for nursing students; JUST
  - 2013-present: Advanced clinical pharmacology for master students; JUST
  - 2014-2016: Special topics in endodontics; JUST
  - 2016-2018: Dental therapeutics for dental students; JUST
  - 2016-present: Part-time lecturer; Faculty of Pharmacy, JUST
  - 2017, 2022: Clinical Pharmacology; Applied Scientific University
  - 2018: Part-time lecturer, Aristotle University, Greece (Erasmus mobility agreement)
  - 2019-2020: Part-time lecturer, Algarve University, Portugal (Erasmus mobility agreement)
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## Other Training and Experience

- 2023 – Present - Acting Chair, Department of pharmacology, School of Medicine; Jordan University of Science and Technology
- 2022 – present - Certified Tobacco dependence treatment specialist (CTTTP)
- 2021-2023 - Deanship of Research, Vice Dean
- 2016-present - Department Research Committee, member
- 2016-present - Animals Care Unit Committee at JUST, Member
- 2019-2021 - Acting Chair, Department of pharmacology, School of Medicine; Jordan University of Science and Technology
- 2016-2017 - Faculty Research Committee, member

- 2016-2019 - Assistant Dean, School of Medicine, Jordan University of Science and Technology:  
 - Director of Course Schedule Mapping.  
 - Quality and accreditation representative  
 - Member of New Curriculum Committee for Medical students.  
 - Faculty Quality Control.  
 - Member of the Organizing Committee for 8th International Medical Conference, 2016.  
 - Member of the Organizing Committee of the 9th International Medical Conference, 2017.
- October, 2019 Participation in Erasmus Plus teaching Mobility at Algarve University, Faro, Portugal.
- April, 2018 Participation in Erasmus Plus teaching Mobility at Aristotle University, Thessaloniki, Greece.
- 2016 Higher Diploma in palliative care, Applied Scientific University, Amman, Jordan
- June, 2014 64<sup>th</sup> Lindau Nobel Laureate Meeting. Lindau, Germany. Jordan representative.
- 2011-2013 Student Government Association (SGA) representative of the Pharmacology and Toxicology Student Organization (PTSO)
- March, 2013 *Community Outreach*: screening and judging at the “Richmond Metro Science fair” (=Metro Richmond STEM Fair).
- 2012-2013 Graduate Student Representative of the Central Virginia Chapter of the Society of Neuroscience (CVCSN). (*Elected*)
- May, 2012 *Community Outreach*: Lecturing to AP psychology; Hermitage High School, Richmond, VA
- 2006-2008 *Research and Teaching Assistant*: Department of Anatomy and Neurobiology-Jordan University of Science and Technology (Irbid, Jordan)

## Awards

- 2013 *Lauren A. Woods Award*: First Place for research excellence among doctoral students in the departmental of Pharmacology and Toxicology at Virginia Commonwealth University

- 2012 Travel Award: Central Virginia Chapter Society for Neuroscience (CVCSN); Society of Neuroscience (SFN), New Orleans, Louisiana (2012)
- 2012 Travel Award: International Narcotics Research Conference (INRC); Kansas City, Missouri (2012)
- 2011 Travel Award: The American Society of Pharmacology and Experimental Therapeutics (ASPET), Experimental Biology, Washington, D.C. (2011)
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## **Presentations**

(2017): Neurobiology of addiction in preclinical studies. IBRO-MINA International Conference, JUST, Irbid, Jordan.

(2017): Neurobiology of addiction: First Scientific Day for the Department of Pharmacology at Faculty of Medicine, JUST.

(2014): Endnote: How to Manage Your References. Presentation in the School of Pharmacy second annual meeting, Zarqa University.

(2012): Effects of Mu- Opioid Receptor Agonists on Pain-Depressed Behaviors in Rats. Presentation at the Emory/Wake Forest/VCU lab exchange, Winston-Salem, NC (Sep, 2012)

(2011): Mu but not kappa opioid receptor agonists block pain-depressed behavior of intracranial self-stimulation in rats. International Narcotics Research Conference: Hollywood, FL, (June, 2011)

(2010): Effects of Mu Opioid Agonists on Intracranial Self-Stimulation in Rats: Role of Mu Agonist Efficacy. Presentation at the Emory/Wake Forest/VCU lab exchange, Winston-Salem, NC (Oct, 2010)

(2009): Effects of Acute and Chronic Morphine on Intracranial Self-Stimulation in Rats. Presentation at the Emory/Wake Forest lab exchange: Atlanta, GA (Sep, 2009)

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## **Publications**

**Ahmad A Altarifi**, Bassel A Younis, Khawla Q Nuseir, Arwa A Al-Mousa, Ahmad K Qaoud, Mohammad I Alsalem, John K Neubert. Preclinical comparison of antinociceptive effects between ibuprofen, diclofenac, naproxen, and acetaminophen on acid-stimulated body stretching and acid-depressed feeding behaviors in rats. *Behavioural Pharmacology*. 2022 Dec 1;33(8):567-574

Tarifi A, Al Shdaifat AA, Al-Shudifat AM, Azab M, Ismail J, Bashir R, Amro A, **Altarifi AA**, Khader Y. Clinical, sinonasal, and long-term smell and taste outcomes in mildly symptomatic COVID-19 patients. *International Journal of Clinical Practice*. 2021 Jul;75(7)

Alsalem M, Haddad M, **Altarifi AA**, Aldossary SA, Kalbouneh H, Abojaradeh AM, El-Salem K. Impairment in locomotor activity as an objective measure of pain and analgesia in a rat model of osteoarthritis. *Experimental and Therapeutic Medicine*. 2020 Dec;20(6):165.

Alsalem M, **Altarifi AA**, Haddad M, Azab B, Kalbouneh H, Imraish A, Saleh T, El-Salem K. Analgesic Effects and Impairment in Locomotor Activity Induced by Cannabinoid/Opioid Combinations in Rat Models of Chronic Pain. *Brain Sciences*. 2020 Aug 6;10(8):523.

**Ahmad A Altarifi**, Megan J Moerke, Mohammad I Alsalem, S Stevens Negus 2020. Preclinical assessment of tramadol abuse potential: Effects of acute and repeated tramadol on intracranial self-stimulation in rats. *Journal of Psychopharmacology* 2020 Aug 34(11): 1316-1325.

Alsalem M, Aldossary SA, Haddad M, **Altarifi AA**, Kalbouneh H, Azab B, Mustafa AG, Jaffal SM, El-Salem K (2020). The desensitization of the transient receptor potential vanilloid 1 by nonpungent agonists and its resensitization by bradykinin. *Neuroreport*. 2020 Aug 5;31(11):781-786.

Alsalem M, **Altarifi AA**, Haddad M, Aldossary SA, Kalbouneh H1, Aldaoud N, Saleh T, El-Salem K. 2019. Antinociceptive and Abuse Potential Effects of Cannabinoid/Opioid Combinations in a Chronic Pain Model in Rats. *Brain Sciences*. 2019 Nov 17;9(11)

Abdo S, Nuseir KQ, **Altarifi AA**, Barqawi M, Ayoub NM, Mukkatash TL. Management of Sickle Cell Disease Pain among Adolescent and Pediatric Patients. *Brain Sciences*. 2019 Jul 30;9(8):182.

**Altarifi AA**, Alsalem M, Mustafa A. 2019. Effects of intraplantar administration of Complete Freund's Adjuvant (CFA) on rotarod performance in mice. *Scandinavian Journal of Pain*. Jul 2, 2019

**Altarifi AA**, Kalha Z, Kana'An SF, Alfaqih MA, Alsalem MI. 2019. Effects of combined swimming exercise and non-steroidal anti-inflammatory drugs on inflammatory nociception in rats. *Experimental and therapeutic medicine*. May;17(5):4303-4311; 2019.

Alsalem M, Haddad M, Aldossary SA, Kalbouneh H, **Altarifi AA**, Jaffal SM, Abbas MA, Aldaoud N, El-Salem K. (2019). Role of cannabinoid receptor 1 and the peroxisome proliferator-activated receptor  $\alpha$  in mediating anti-nociceptive effects of synthetic cannabinoids and a cannabinoid-like compound. *Inflammopharmacology*. Apr 3; 2019.

Nuseir KQ, **Altarifi AA**, Tasslaq A, Alhusban AY, Alzoubi KH. (2019). Early and late anti nociceptive effects of sucrose on neonatal inflammatory pain in rats: Comparison to a non-steroidal anti-inflammatory drug. *Physiology and behavior*. Jul 1;206:37-42; 2019

Mustafa AG, Tashtoush AA, Alshboul OA, Allouh MZ, **Altarifi AA**. (2019). Morphometric Study of the Hard Palate and Its Relevance to Dental and Forensic Sciences. *International journal of dentistry*. Jan 28;2019:1687345; 2019

Shreen D Nusair, Yousef S Abu Zarour, **Ahmad A. Altarifi** (2017). Effects of Dibenzo-*p*-Dioxins/Dibenzofurans on Acetylcholinesterase Activity and Histopathology of the Body Wall of Earthworm *Eisenia andrei*: a Potential Biomarker for Ecotoxicity Monitoring. *Water, Air, and Soil Pollution*. July, 228:266; 2017.

**Altarifi AA**, David B, Muchhala KH, Blough BE, Akbarali H, Negus SS (2017). Effects of acute and repeated treatment with the biased mu opioid receptor agonist TRV130 (oliceridine) on measures of antinociception, gastrointestinal function, and abuse liability in rodents. *Journal of psychopharmacology*. Jun;31(6):730-739, 2017.

Mohammad Alsalem, **Ahmad Altarifi**, Heba Kalbouneh, Heba Al-Zer, Belal Azab and Khalid El-Salem (2016). Role of PPAR $\alpha$  and PPAR $\gamma$  in Mediating the Analgesic Properties of Ibuprofen in vivo and the Effects of Dual PPAR $\alpha/\gamma$  Activation in inflammatory Pain Model in the Rat. *International journal of pharmacology*. Oct 12: 812-820, 2016.

Alsalem M, Millns P, **Altarifi A**, El-Salem K, Chapman V, Kendall DA (2016). Anti-nociceptive and desensitizing effects of olvanil on capsaicin-induced thermal hyperalgesia in the rat. *BMC pharmacology and Toxicology*. Jul 21;17(1):3, 2016.

Miller LL, **Altarifi AA**, Negus SS (2015). Effects of repeated morphine on intracranial self-stimulation in male rats in the absence or presence of a noxious pain stimulus. *Experimental and Clinical Psychopharmacology*. Oct;23(5):405-14, 2015.

Negus SS, Neddenriep B, **Altarifi AA**, Carrol FI, Leidl MD, Miller LL (2015). Effects of keptprofen, morphine, and kappa opioids on pain-related depression of nesting in mice. *Pain*. 156(6):1153-60, 2015.

**Altarifi AA**, Negus SS (2015). Differential tolerance to morphine antinociception in assays of pain-stimulated vs. pain-depressed behavior in rats. *European Journal of Pharmacology*. 5;748:76-82, 2015.

**Altarifi AA**, Rice KC, Negus SS (2015). Effects of  $\mu$ -opioid receptor agonists in assays of acute pain-stimulated and pain-depressed behavior in male rats: role of  $\mu$ -agonist efficacy and noxious stimulus intensity. *JPET*. 352(2):208-17, 2015

**Altarifi AA**, Yuan Y, Zhang Y, Selley DE, Negus SS (2015). Effects of the novel, selective and low-efficacy mu opioid receptor ligand NAQ on intracranial self-stimulation in rats. *Psychopharmacology*. 232:815-824, 2015.

Negus SS, **Altarifi AA**. Mu, delta and kappa opioid agonist effects in novel assays of pain-depressed behavior. In: Ko H, Husbands, S, editors. Research and Development in Opioid-Related Medications. ACS Books. May, 2013.

**Altarifi AA**, Rice KC, Negus SS (2013). Abuse-related effects of  $\mu$ -opioid analgesics in an assay of intracranial self-stimulation in rats: modulation by chronic morphine exposure. *Behavioural Pharmacology* 24(5-6):459-70, 2013.

**Altarifi AA**, Miller LL, Negus SS (2012). Role of Mu Opioid Receptor Reserve and Mu Agonist Efficacy on Mu Agonist Effects on Intracranial Self-Stimulation. *Behavioural Pharmacology* 23(7):678-92, 2012

Negus SS, Rosenberg MB, **Altarifi AA**, O`Connell RH, Folk JE, Rice KC (2012). Effects of the Delta Opioid Receptor Agonist SNC80 on Pain-Related Depression of Intracranial Self-Stimulation (ICSS) in Rats. *Journal of Pain* 13(4):317-27, 2012

**Altarifi AA**, Negus SS (2011). Some determinants of morphine effects on intracranial self-stimulation in rats: dose, pretreatment time, repeated treatment, and rate dependence. *Behavioural Pharmacology* 22(7):663-673

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## Abstracts

Mohammad Alsalem, **Ahmad Altarifi**, Nour Aldaoud. Effects and Side Effects of Cannabinoid/Opioid Combination in a Chronic Pain Model in Rats. Experimental Biology. Orlando, 2019.

K. Nuseir, A. Tasslaq, **A. Altarifi**, K. H. Alzoubi. Early and late anti nociceptive effects of sucrose on neonatal inflammatory pain; comparison to a non-steroidal anti-inflammatory drug. Society for Neuroscience. San Diego, 2018.

**Ahmad A**, Bassel Y. Mohammad A. Khawla N. Antinociceptive Effects of NSAIDs on Acid-Stimulated Stretching and Acid-Depressed Feeding in Rats. Society for neuroscience: Washington, D.C. 2017.

Younis B, **Altarifi AA (2016)**. Effects of Non-Steroidal anti-inflammatory Drugs on Assays of acid-induced and acid-Depressed Behaviors in Rats. Poster presented at the 8<sup>th</sup> International Medical Conference: JUST, Irbid, Jordan 2016.

**Ahmad Altarifi**, Bruce E. Blough, and S. Stevens Negus. Abuse-Related Effects of the Biased Mu Opioid Receptor Agonist TRV130 on Intracranial Self-Stimulation in Rats. College of Problem on Drug Dependence, Palm Springs, USA, 2016.

**Altarifi AA, Negus SS (2014)**. Morphine antinociception is resistant to tolerance in an assay of pain-depressed intracranial self-stimulation. Poster presented at Society for Neuroscience: Washington, D.C. 2014.

**Altarifi AA, Negus SS (2013)**. Effects of Methadone, Fentanyl and Nalbuphine on Intracranial Self-Stimulation in Rats: Modulation by Morphine Exposure. Poster presented at Experimental Biology: Boston, MA 2013

**Altarifi AA, Negus SS (2012)**. Effects of Mu Opioid Receptor Agonists on Pain-Stimulated and Pain-Depressed Behaviors in Rats. Poster presented at Society of Neuroscience, New Orleans, Louisiana 2012

**Altarifi AA, Negus SS (2012)**. Effects of Mu, Delta and Kappa Opioid Receptor Agonists on Pain-Stimulated vs. Pain-Depressed Behaviors in Rats. Poster presented at International Narcotics Research Conference; Kansas City, Missouri 2012

**Altarifi AA Negus SS (2012)**: Effects of Mu, Delta and Kappa Opioid Receptor Agonists on Pain-Stimulated vs. Pain-Depressed Behaviors in Rats. 7<sup>th</sup> annual pain consortium symposium: NIH, (May 2012)

**Altarifi AA, Negus SS (2011)**. Chronic Morphine Treatment Influences Mu- Opioid Receptor Agonist Effects on Intracranial Self-Stimulation. Poster presented at the College on Problems of Drug Dependence: Hollywood, Florida, 2011

**Altarifi AA, Negus SS (2011)**. Effects of Mu Opioid Agonists on Intracranial Self-Stimulation in Rats: Role of Mu Agonist Efficacy. Poster presented at Experimental Biology: Washington, D.C., 2011

**Altarifi AA, Negus SS (2010)**. Role of Time Course and Repeated Treatment as Determinants of Morphine Effects on Intracranial Self-Stimulation (ICSS) in Rats. Poster presented at Experimental Biology: Anaheim, California, 2010

## **Grants**



- 2018 - 2020:** Effect of Acute and Chronic administration of Tramadol on Intracranial Self-Stimulation in Rats.(JUST)
- 2016 - 2020:** Effects and side effects of cannabinoid/opioid combination on chronic pain models in rodents; Scientific Research Support Fund (Co-Investigator) (Scientific Research Fund, Jordan)
- 2016:** Swimming exercise effects on pain in rats and dose of analgesic used; Jordan University of Science and Technology.
- 2015:** Assessment the antinociceptive effect of NSAIDs on lactic acid-stimulated writhing and depressed feeding behaviors in rats; Jordan University of Science and Technology
- 2015 - 2019:** Effects of waterpipe machine water on the behavioral and tissue-organ function in rodents; Jordan University of Science and Technology
- 2014:** New strategies to assess pain-related behaviors in rodents; Jordan University of Science and Technology