

Main title: Synthesis and Structure Activity Relationship of Some Indole Derivatives as Potential Anti-inflammatory Agents.

Running title: Tetrahydroindole as anti-inflammatory agents

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- Original paper; in the field of medicinal chemistry.
- The interest in pyrrole derivatives increases due to their pharmaceutical importance.
- Synthesis of some fused pyrroles and pyrrolopyrimidines derivatives
- Evaluation of the anti-inflammatory activity. Comparing the activity with two standard drugs (Indomethacin and Ibuprofen)**
- Molecular docking also examined and found to be correlated with the *in vivo* effect.

"The authors declare that there is no conflict of interests regarding the publication of this article.

Manuscript has not been previously published, is not currently submitted for review to any other journal, and will not be submitted elsewhere before a decision is made by this journal.

Conflicts of interest

By virtue of this, wishing to confirm that there were unknown conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome. All procedures performed in studies involving animals were in accordance with the ethical standards of the institution (Faculty of Pharmacy, Helwan University).

** the procedures followed in animal research were in accordance with the *standards set forth in the eighth edition of Guide for the Care and Use of Laboratory Animals; published by the National Academy of Sciences, The National Academies Press, Washington, D.C..*

Proposed referees

1-Mahmoud Youns [Molecular biology and biochemistry department, German Cancer Research Center] Email: dr.mahmoudyouns@yahoo.com]

** Design, synthesis, molecular modeling and anti-breast cancer activity of novel quinazolin-4-one derivatives linked to thiazolidinone, oxadiazole or pyrazole moieties Medicinal Chemistry Research 24(7) · March 2015, DOI: 10.1007/s00044-015-1357-1] Marwa Farag, Amany Belal, Mahmoud Youns.

**** Anticancer activity of coumarin hydrazide-hydrazone derivatives bearing five-membered heterocyclic rings** Eur J Med Chem. 2014 Apr 9;76:539-48. doi: 10.1016/j.ejmech.2014.02.026. [Tamer Nasr, Samir Bondock, Mahmoud Youns]

2- Dalia Abdelaziz [The University of Calgary, Department of Comparative Biology and Experimental Medicine, Calgary, Alberta, Canada] E-mail: dalia.abdelaziz@ymail.com

**** The cooperation between the autophagy machinery and the inflammasome to implement an appropriate innate immune response: Do they regulate each other?** Immunological Reviews 265(1):194-204 · May 2015 , DOI: 10.1111/imr.12288 · Dalia H A Abdelaziz · Hany Khalil · Estelle Cornet-Boyaka · Amal O Amer

**** Phoenix dactylifera seeds ameliorate early diabetic complications in streptozotocin-induced diabetic rats** [Pharmaceutical Biology 53(6):1-8 · January 2015 DOI: 10.3109/13880209.2014.942790] Dalia Abdelaziz, Sahar A. Ali, Mahmoud Mostafa

3- Wafaa Zaghary [Pharmaceutical chemistry department, Faculty of Pharmacy, King Saud University , Riyadh, Riyadh, Saudi Arabia] E-mail: wzaghary@yahoo.com]

**** S-Glycosides in Medicinal Chemistry: Novel Synthesis of Cyanoethylene Thioglycosides and Their Pyrazole Derivatives[Nucleosides Nucleotides & Nucleic Acids · January 2017 DOI: 10.1080/15257770.2016.1257807]** Galal Elgemeie · Nahed Fathy · Wafaa Zaghary · Ayman Farag

**** Biodistribution of ^{99m}Tc–2-aminoestrone-3-methyl ether as a potential radiotracer for inflammation imaging[Journal of Radioanalytical and Nuclear Chemistry 303(1) · January 2015, DOI: 10.1007/s10967-014-3320-x]** Maha S. Al Mutairi, M. A. Motaleb, Nadia G. Haress, Wafaa Zaghary