A Manuscript Microscope 'Sentence Audit' of:

Ion transport modulators differentially modulate inflammatory responses in THP-1 derived macrophages

What is the Manuscript Microscope Sentence Audit?

The Manuscript Microscope Sentence Audit is a research paper introspection system that parses the text of your manuscript into minimal sentence components for faster, more accurate, enhanced proofreading.

Why use a Sentence Audit to proofread your manuscript?

- Accelerated Proofreading: Examine long technical texts in a fraction of the usual time.
- Superior Proofreading: Detect subtle errors that are invisible to traditional methods.
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- Reliable Proofreading: Ensure every single word of your manuscript is correct.
- Easier Proofreading: Take the hardship out of crafting academic papers.

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Bonus 2: Improved Authorship: Cultivate a clear, concise, consistent, writing style.
Bonus 3: Improved Reputation: Become known for rigorously precise publications.

Manuscript Source: https://www.biorxiv.org/content/10.1101/2021.03.21.436302v1

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Features of the Sentence Audit:

The Sentence Audit combines two complementary proofreading approaches:

1. Each sentence of your text is parsed and displayed in isolation for focused inspection.
2. Each individual sentence is further parsed into Minimal Sentence Components for a deeper review of the clarity, composition and consistency of the language you used.

The Minimal Sentence Components shown are the smallest coherent elements of each sentence of your text as derived from it's conjunctions, prepositions and selected punctuation symbols (i.e. commas, semicolons, round and square brackets).

The combined approaches ensure easier, faster, more effective proofreading.

Comments and Caveats:

• The sentence parsing is achieved using a prototype natural language processing pipeline written in Python and may include occasional errors in sentence segmentation.

• Depending on the source of the input text, the Sentence Audit may contain occasional html artefacts that are parsed as sentences (E.g. "Download figure. Open in new tab").

• Always consult the original research paper as the true reference source for the text.

Contact Information:

To get a Manuscript Microscope Sentence Audit of any other research paper, simply forward any copy of the text to John.James@OxfordResearchServices.com.

All queries, feedback or suggestions are also very welcome.

Research Paper Sections:

The sections of the research paper input text parsed in this audit.

Section No.	Headings	Sentences
Section: 1	Abstract	8
Section: 2	Introduction	19
N/A	--- --- --- --- --- --- ---	0
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The Sentence Audit Of The Research Paper

Title # Ion transport modulators differentially modulate inflammatory responses in THP-1 derived macrophages

S1 [001] Abstract

S1 [002] Ion transport modulators are most commonly used to treat various non-communicable diseases including diabetes and hypertension.

Ion transport modulators are most commonly used ...
... to treat various non-communicable diseases including diabetes ...
... and hypertension.

S1 [003] They are also known to bind to receptors on various immune cells, but the immunomodulatory properties of most ion transport modulators have not been fully elucidated.

They are also known ...
... to bind ...
... to receptors ...
... on various immune cells, ...
... but the immunomodulatory properties ...
... of most ion transport modulators have not been fully elucidated.

S1 [004] We assessed the effects of thirteen FDA approved ion transport modulators namely ambroxol HCl, amiloride HCl, diazoxide, digoxin, furosemide, hydrochlorothiazide, metformin, omeprazole, pantoprazole, phenytoin, verapamil, drug X and drug Y on superoxide production, nitric oxide production and cytokine expression by THP-1 derived macrophages that had been stimulated with ethanol-inactivated Mycobacterium bovis BCG.

We assessed the effects ...
... of thirteen FDA approved ion transport modulators namely ambroxol HCl, ...
... amiloride HCl, ...
... diazoxide, ...
... digoxin, ...
... furosemide, ...
... hydrochlorothiazide, ...
... metformin, ...
... omeprazole, ...
... pantoprazole, ...
... phenytoin, ...
... verapamil, ...
... drug X ...
... and drug Y ...
... on superoxide production, ...
... nitric oxide production ...
... and cytokine expression ...
... by THP-1 derived macrophages ...
... that had been stimulated ...
... with ethanol-inactivated Mycobacterium bovis BCG.

S1 [005] Ambroxol HCl, diazoxide, digoxin, furosemide, hydrochlorothiazide, metformin, pantoprazole, phenytoin, verapamil and drug Y had an inhibitory effect on nitric oxide production, while all the test drugs had an inhibitory effect on superoxide production.

Ambroxol HCl, ...
... diazoxide, ...
... digoxin, ...
... furosemide, ...
... hydrochlorothiazide, ...
... metformin, ...
... pantoprazole, ...
... phenytoin, ...
... verapamil ...
... and drug Y had an inhibitory effect ...
... on nitric oxide production, ...
... while all the test drugs had an inhibitory effect ...
... on superoxide production.

S1 [006] Amiloride HCl, diazoxide, digoxin, furosemide, phenytoin, verapamil, drug X and drug Y enhanced the expression of IL-1β and TNF-α.

Amiloride HCl, ...
... diazoxide, ...
... digoxin, ...
... furosemide, ...
... phenytoin, ...
... verapamil, ...
... drug X ...
... and drug Y enhanced the expression ...
... of IL-1β ...
... and TNF-α.

S1 [007] Unlike most immunomodulatory compounds currently in clinical use, most of the test drugs inhibited some inflammatory processes while promoting others.

Unlike most immunomodulatory compounds currently ...
... in clinical use, ...
... most of the test drugs inhibited some inflammatory processes ...
... while promoting others.

S1 [008] Ion pumps and ion channels could therefore serve as targets for more selective immunomodulatory agents which do not cause overt immunosupression.

Ion pumps ...
... and ion channels could therefore serve ...
... as targets ...
... for more selective immunomodulatory agents ...
... which do not cause overt immunosupression.

S2 [009] Introduction

S2 [010] The use of immunomodulators has increased significantly over the last few decades, in part due to a rise in the prevalence of autoimmune diseases worldwide [1,2].

The use ...
... of immunomodulators has increased significantly ...
... over the last few decades, ...
... in part ...
... due to a rise ...
... in the prevalence ...
... of autoimmune diseases worldwide ...
... [1,2].

S2 [011] Corticosteroids and nonsteroidal anti-inflammatory drugs (NSAIDS) are two of the oldest and most commonly used classes of immunomodulators in clinical practice.

Corticosteroids ...
... and nonsteroidal anti-inflammatory drugs ...
... (NSAIDS) ...
... are two ...
... of the oldest ...
... and most commonly used classes ...
... of immunomodulators ...
... in clinical practice.

S2 [012] The term ‘corticosteroid’ encompasses various steroid hormones produced by the adrenal cortex and their synthetic analogues [3].

The term ‘corticosteroid’ encompasses various steroid hormones produced ...
... by the adrenal cortex ...
... and their synthetic analogues ...
... [3].

S2 [013] Corticosteroids bind to cytoplasmic steroid receptors, following which the receptor-ligand complex traverses the nuclear membrane and modulates transcription of various genes [3].

Corticosteroids bind ...
... to cytoplasmic steroid receptors, ...
... following ...
... which the receptor-ligand complex traverses the nuclear membrane ...
... and modulates transcription ...
... of various genes ...
... [3].

S2 [014] In addition to modulating transcription, corticosteroids can also directly modulate the activity of various proteins including G-protein coupled receptors [4].

In addition ...
... to modulating transcription, ...
... corticosteroids can also directly modulate the activity ...
... of various proteins including G-protein coupled receptors ...
... [4].

S2 [015] Corticosteroids induce a wide range of physiological changes, and are thus associated with numerous adverse effects including osteoporosis and Cushing's syndrome [5].

Corticosteroids induce a wide range ...
... of physiological changes, ...
... and are thus associated ...
... with numerous adverse effects including osteoporosis ...
... and Cushing's syndrome ...
... [5].

S2 [016] NSAIDS on the other hand have a relatively narrow activity spectrum, and primarily inhibit the activity of cyclooxygenase (COX) 1 and 2.

NSAIDS ...
... on the other hand have a relatively narrow activity spectrum, ...
... and primarily inhibit the activity ...
... of cyclooxygenase ...
... (COX) ...
... 1 ...
... and 2.

S2 [017] COX1 and COX2 catalyse the production of prostaglandins, which mediate various inflammatory processes [6,7].

COX1 ...
... and COX2 catalyse the production ...
... of prostaglandins, ...
... which mediate various inflammatory processes ...
... [6,7].

S2 [018] However, as prostaglandins are also involved in protection of the gastric mucosa from gastrointestinal secretions, NSAIDS at times cause peptic ulceration [8].

However, ...
... as prostaglandins are also involved ...
... in protection ...
... of the gastric mucosa ...
... from gastrointestinal secretions, ...
... NSAIDS ...
... at times cause peptic ulceration ...
... [8].

S2 [019] More selective COX2 inhibitors are generally less likely to cause peptic ulceration, but are associated with an increased risk of thrombosis [7,9].

More selective COX2 inhibitors are generally less likely ...
... to cause peptic ulceration, ...
... but are associated ...
... with an increased risk ...
... of thrombosis ...
... [7,9].

End of Sample Audit

This is a truncated Manuscript Microscope Sample Audit.

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