A Manuscript Microscope 'Sentence Audit' of:

Dihydropyrimidinase-like 2 (DPYSL2) regulates breast cancer migration via a JAK/STAT3/vimentin axis

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.
- Focused Proofreading: Inspect each individual sentence component in isolation.
- Reliable Proofreading: Ensure every single word of your manuscript is correct.
- Easier Proofreading: Take the hardship out of crafting academic papers.

Bonus 1: Improved Productivity: Rapidly refine rough drafts to polished papers.
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/10.1101/2021.03.21.436294v1

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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	10
Section: 2	Introduction	17
N/A	--- --- --- --- --- --- ---	0
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The Sentence Audit Of The Research Paper

Title **Dihydropyrimidinase-like 2 (DPYSL2) regulates breast cancer migration via a JAK/STAT3/vimentin axis**

S1 [001] Abstract

S1 [002] The intricate neuronal wiring during development requires cytoskeletal reorganization orchestrated by signaling cues.

The intricate neuronal wiring ...
... during development requires cytoskeletal reorganization orchestrated ...
... by signaling cues.

S1 [003] Considering that cytoskeletal remodeling is a hallmark of cell migration, we inquired whether metastatic cancer cells exploit the axon guidance proteins to migrate.

Considering ...
... that cytoskeletal remodeling is a hallmark ...
... of cell migration, ...
... we inquired ...
... whether metastatic cancer cells exploit the axon guidance proteins ...
... to migrate.

S1 [004] Indeed, in breast cancer patients, we found a significant correlation between the mesenchymal markers and the expression of dihydropyrimidinase-like 2 (DPYSL2), a regulator of cytoskeletal dynamics in growing axons.

Indeed, ...
... in breast cancer patients, ...
... we found a significant correlation ...
... between the mesenchymal markers ...
... and the expression ...
... of dihydropyrimidinase-like 2 ...
... (DPYSL2), ...
... a regulator ...
... of cytoskeletal dynamics ...
... in growing axons.

S1 [005] Strikingly, DPYSL2 knockout in mesenchymal-like cells profoundly inhibited cell migration, invasion, stemness features, tumor growth rate, and metastasis.

Strikingly, ...
... DPYSL2 knockout ...
... in mesenchymal-like cells profoundly inhibited cell migration, ...
... invasion, ...
... stemness features, ...
... tumor growth rate, ...
... and metastasis.

S1 [006] Next, we aimed to decode the molecular mechanism underlying this phenomenon and revealed an interaction between DPYSL2 and Janus kinase 1 (JAK1).

Next, ...
... we aimed ...
... to decode the molecular mechanism underlying this phenomenon ...
... and revealed an interaction ...
... between DPYSL2 ...
... and Janus kinase 1 ...
... (JAK1).

S1 [007] This binding is crucial for triggering signal transducer and activator of transcription 3 (STAT3) and subsequently expressing vimentin, the pro-migratory intermediate filament.

This binding is crucial ...
... for triggering signal transducer ...
... and activator ...
... of transcription 3 ...
... (STAT3) ...
... and subsequently expressing vimentin, ...
... the pro-migratory intermediate filament.

S1 [008] Collectively, we identified DPYSL2 as a molecular link between oncogenic signaling pathways and cytoskeletal reorganization in migrating breast cancer cells.

Collectively, ...
... we identified DPYSL2 ...
... as a molecular link ...
... between oncogenic signaling pathways ...
... and cytoskeletal reorganization ...
... in migrating breast cancer cells.

S1 [009] Statement of significance This study shows that the axon guidance adaptor protein DPYSL2 is essential for promoting breast cancer migration.

Statement ...
... of significance This study shows ...
... that the axon guidance adaptor protein DPYSL2 is essential ...
... for promoting breast cancer migration.

S1 [010] Specifically, this protein interacts with JAK1 to govern STAT3 signaling and subsequently vimentin expression.

Specifically, ...
... this protein interacts ...
... with JAK1 ...
... to govern STAT3 signaling ...
... and subsequently vimentin expression.

S2 [011] Introduction

S2 [012] The guidance of developing neurons to their specific target region is regulated by a combination of signaling cues composed of ligand/receptor interactions (1).

The guidance ...
... of developing neurons ...
... to their specific target region is regulated ...
... by a combination ...
... of signaling cues composed ...
... of ligand/receptor interactions ...
... (1).

S2 [013] The axon guidance machinery includes distinct families of canonical guidance proteins, such as slit guidance ligand (SLIT) (2).

The axon guidance machinery includes distinct families ...
... of canonical guidance proteins, ...
... such as slit guidance ligand ...
... (SLIT) ...
... (2).

S2 [014] This family of secreted factors induces changes in the newly developing axon through interaction with members of the roundabout guidance receptor (ROBO) family (3).

This family ...
... of secreted factors induces changes ...
... in the newly developing axon ...
... through interaction ...
... with members ...
... of the roundabout guidance receptor ...
... (ROBO) ...
... family ...
... (3).

S2 [015] Other axon guidance families include the semaphorins and their receptors, neuropilins (NRP) (4).

Other axon guidance families include the semaphorins ...
... and their receptors, ...
... neuropilins ...
... (NRP) ...
... (4).

S2 [016] The outcome of semaphorins/NRP and ROBO/SLIT activation is structural reorganization of the cell (5) mediated by cytoskeleton binding proteins (6), such as the collapsin response mediator protein (CRMP) family (7).

The outcome ...
... of semaphorins/NRP ...
... and ROBO/SLIT activation is structural reorganization ...
... of the cell ...
... (5) ...
... mediated ...
... by cytoskeleton binding proteins ...

... (6), ...
... such as the collapsin response mediator protein ...
... (CRMP) ...
... family ...
... (7).

S2 [017] Thus, in development cytoskeletal rearrangement is a central process, which is necessary for the axons to navigate to their defined targets.

Thus, ...
... in development cytoskeletal rearrangement is a central process, ...
... which is necessary ...
... for the axons ...
... to navigate ...
... to their defined targets.

S2 [018] Epithelial-mesenchymal transition (EMT) was initially described as an early developmental program used by epithelial cells to trans-differentiate and gain mesenchymal-like properties (8).

Epithelial-mesenchymal transition ...
... (EMT) ...
... was initially described ...
... as an early developmental program used ...
... by epithelial cells ...
... to trans-differentiate ...
... and gain mesenchymal-like properties ...
... (8).

S2 [019] In tumors, this program is assumed to be the mechanism by which carcinomas gain aggressive features such as migratory capabilities, chemoresistance, and stemness (9-11).

In tumors, ...
... this program is assumed ...
... to be the mechanism ...
... by which carcinomas gain aggressive features ...
... such as migratory capabilities, ...
... chemoresistance, ...
... and stemness ...
... (9-11).

S2 [020] The activation of the EMT program by extracellular cues (12), such as the transforming growth factor-β (TGFβ) (13,14) and interleukin 6 (IL-6) (9), results in significant transcriptome changes.

The activation ...
... of the EMT program ...
... by extracellular cues ...
... (12), ...
... such as the transforming growth factor-β ...
... (TGFβ) ...
... (13,14) ...
... and interleukin 6 ...
... (IL-6) ...

End of Sample Audit

This is a truncated Manuscript Microscope Sample Audit.

To get the full audit of this text (or any other research paper),
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