

Check List

For your manuscript meet the basic criteria of publish on Frontiers in Bioscience journals, please check the manuscript according to the checklist one-by-one carefully. If your manuscript meets the requirement in the left side of the table, please put a check mark \checkmark in the appropriate box. If you find any mistake in your manuscript, please put a check mark \times in the appropriate box, make the correction in your manuscript and mark it orange.

For front matter (title page) should include:

Title	\checkmark	\times
1. There should be only one sentence in the title of the manuscript.		
2. Please capitalize the first letter of the first word in the title.		
For example: Association between nitrated lipoproteins and vascular function in type 2 diabetes		
The Name of the Author	\checkmark	\times
1. The name of the author should be written in English.		
2. Titles are not included in the name of the author. Such as: Dr. Prof.		
3. Please write the authors' full names . There should not be only one word in the name of the author. If the authors' names are special, please inform us (especially for the capital and small letter, or comma among the names).		
4. There should be no comma in the name of one author. For example: A., Yesilaras (The comma will be deleted.)		
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6. Please capitalize the first letter in the name of the author. For example: <u>A</u> frin Yesilaras		
7. Please check and confirm the name(s) of the author(s).		
8. There should be no authors' personal information in the manuscript. All Authors' personal information should be included in the Title Page.		
For example: Levon Wilson ¹ , Ming-Hao Wang ¹ , Silva Wilson ^{2,*}		
The Affiliation of the Author	\checkmark	\times

1. The affiliation of the author should include department/faculty, university/institute, city and nation.		
2. The affiliation of the author should be written in English.		
3. The affiliation of the author should not be in the abbreviated form.		
4. Please check and confirm the names of the authors and the corresponding affiliations.		
5. Affiliations of the authors indicated by numbers (not symbols).		
6. Frontiers in Bioscience allows up to two corresponding authors; when two are listed, no priority is given to either. Please provided the corresponding author Name, full postal address, including street number and name, Tel, Fax and institutional email address.		
Such as: ¹ <i>School of Social Sciences and Psychology, Western Sydney University, Penrith, New South Wales 2751, Australia</i>		

Email Address	√	×
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2. Please provided the corresponding author Name, full postal address, including street number and name, Tel, Fax and institutional email address.		
3. One email address should be only attached to one author.		
Such as: Robert Carl, School of Social Sciences and Psychology, Western Sydney University, Penrith, New South Wales 2751, Australia, Tel: ****_****, Fax: ****_****, E-mail: ****@em.edu		

Acknowledgement	√	×
1. Acknowledge contributions from non-authors here.		
2. Do not omit this section or filled in “none”.		
For example: “Thanks to all the peer reviewers and editors for their opinions and suggestions”.		

Conflict of interest	√	×
1. If there are no interests to declare, please use the following words: "The authors declare that there is no conflict of interest regarding the publication of this article."		
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Author contributions	√	×
This section is required for all papers.		
For example: For example: R. and S. conceived and designed the experiments; R. performed the experiments; H.W. and L.C. wrote the paper.		

Funding	√	×
List funding sources.		
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Ethics Approval and Consent to Participate	√	×
This section is required for all papers involving humans or animals.		
For example:		

For body (main section) should include:

Title	√	×
1. There should be only one sentence in the title of the manuscript.		
2. Please capitalize the first letter of the first word in the title.		

Table of Contents	√	×
Please do not use automatic numbering in table of contents		

<p>For example:</p> <p>1. <i>Abstract</i></p> <p>2. <i>Introduction</i></p> <p>3. <i>Section 3.</i></p> <p style="padding-left: 20px;">3.1. <i>Section 3.1.</i></p> <p style="padding-left: 40px;">3.1.1. <i>Section 3.1.1.</i></p> <p>4. <i>Section 4.</i></p> <p style="padding-left: 20px;">4.1. <i>Section 4.1.</i></p> <p>5. <i>References</i></p> <p>Please note that a period is required after each number. Only the first letter or abbreviations are capitalized.</p>		
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Abstract	√	×
1. The abstract should be no less than 40 words and no more than 300 words.		
2. The abstract must be one paragraph. Don't write into more than one paragraph.		
3. This section should be continuous (not structured) and without reference numbers.		

<p>For example:</p> <p>Aging in mammals results in numerous age related pathologies such as diabetes, and Alzheimer's disease which ultimately lead to organ failure and the demise of the organism. Numerous cell-centric hypotheses have attributed the disorders of aging to lie downstream to age dependent cellular damage to biologic signaling pathways, bio-informational molecules, telomeres, organelles, and stem cells. Here, we review these cell-centric causes of aging that range from the disposable soma theory, to somatic mutation theory, and free radical theory, to theories that ascribe aging to DNA damage and methylation (DNAaging and DNA superaging), impairment of autophagy (GarbAging), telomeric attrition, senescence, immunoscence and inflammaging. Others view that aging is caused by MitoAging, NutrimiRaging and miRagings to exhaustion of stem cell pool. Together, the current models of aging, show the existence of damage to different cellular compartments. However, it is not yet clear which, if any, of these cellular damages represent the most proximal cause of aging.</p>		
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Introduction		
1. State the objectives of the work and provide an adequate background to clarify why the study was undertaken and what hypotheses were tested, avoiding a detailed literature survey or a summary of the results.	√	×
2. The information in this section should always be referenced and must discuss the literature.		
For example:		
Materials and Methods		
1. Methods already published should be indicated by a reference: only relevant modifications should be described.	√	×
2. For each experiment, all steps need to be mentioned, along with instruments the analyses were performed on, reagents and methods to permit the replication of the work by others.		
3. we would encourage authors to submitting a detailed Bio-protocol.		
4. Tissues: explain how these were collected, handled and stored, and where they were from.		
5. Bacterial, strains or cells: Provide the name and supplier. Matching between controls and disease patients with regards to the above parameters.		
6. Steps performed with commercialized kits: Provide the full name of the kit, along with the full name and location (city, province or state, and country) of the supplier, and state whether the protocol of the manufacturer was followed or explain any modifications made to the standard protocol.		
7. Bioinformatics analyses: State the software used along with the relevant citation, unless the software is not published, in which case a website link can be provided.		
8. When statistical analyses have been performed, the following information should be provided: the name of the statistical test used, the number for each analysis, the comparisons of interest, the alpha level and the actual p-value for each test.		
For example:		
Results		
1. Include a concise summary of the data presented in all display items (figures and tables).	√	×

2. Numerical data should be analyzed using appropriate statistical tests described in the Experimental Design and Statistical Analysis section.		
For example:		
Discussion	√	×
1. This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate.		
2. Avoid extensive citations and discussion of published literature.		
For example:		
Conclusions	√	×
1. The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.		
For example:		

For back matter should include:

Ethics approval and consent to participate	√	×
1. Manuscripts reporting studies involving human participants, human data or human tissue must: include a statement on ethics approval and consent (even where the need for approval was waived) include the name of the ethics committee that approved the study and the committee's reference number if appropriate. Studies involving animals must include a statement on ethics approval. More information about editorial policies .		
For example:		

References	√	×
1. References list sort numerically. The reference list should be limited to only those citations essential to the presentation.		
2. Please verify the accuracy of all references and check that all references have been cited in the text.		

3. Please list all authors' names if the authors less than 6. For the authors more than 6, use "et al".		
4. Please list the abbreviative name of the journal. The reference should include all the pages.		
5. Use the [number] for the references in the text.		
<p>For example:</p> <p>(1) Journal:</p> <p>① Single Author</p> <p>[1] Boyden EA. A critique of the international nomenclature on bronchopulmonary segments. <i>Dis Chest.</i> 1953; 23: 266-269.</p> <p>② Two Authors</p> <p>[2] McNarry AF, Goldhill DR. Simple bedside assessment of level of consciousness: comparison of two simple assessment scales with the Glasgow Coma scale. <i>Anaesthesia.</i> 2004; 59: 34–37</p> <p>③ More than 6 authors</p> <p>[3] Churpek MM, Yuen TC, Park SY, Churpek MM, Yuen TC, Park SY, <i>et al.</i> Derivation of a cardiac arrest prediction model using ward vital signs. <i>Crit Care Med.</i> 2012; 40: 2102–2108.</p> <p>(2) Book:</p> <p>[1] Kolacek S, Mestrovic J. Vascular access, including complications. In: Langnas AN, Goulet O, Quigley EMM, Tappenden KA, editors. <i>Intestinal failure</i>, 1st ed. Malden, MA: Blackwell Publishing; 2008. p. 142-150.</p> <p>[2] Lang TA, Secic M. <i>How to report statistics in medicine.</i> Philadelphia: American College of Physicians; 1997.</p> <p>(3) Patent:</p> <p>[1] Anninos PA, Tsagas N. Electronic apparatus for treating epileptic individuals. USA patent NO. 5453072, 1995.</p> <p>(4) If there are non-English journals in the reference, please insert the journal language as the ending. For example:</p> <p>[1] Wiese L, Kurtzhals J A, Penkowa M. Neuronal apoptosis metallothionein expression. <i>German Neurology</i> 2006; 200: 216-226. (In German)</p> <p>(5) Website</p> <p>[1] Ricou B, Bandschap O. Propofol and perioperative inflammation. <i>ClinicalTrials.gov</i> 2010. accessible on: https://clinicaltrials.gov/ct2/show/NCT01115179.</p>		

Abbreviations

Keywords	√	×
1. Include at least five key words. Include the word "Review" for reviews. The first letter and abbreviations must be capped.		
2. It should be better to make the keywords brief and concise.		
3. Please capitalize the first letter in first word of every keyword.		
4. There should be a semicolon followed by a spacing in between two key words.		
For example: Specialized robot; Robo-pigeon; Flight control; Neuromodulation; Cyborg; Robo-animal		

Figure legends		√	×
1. Figure legend should have a brief title that describes the entire figure without citing specific panels, followed by a detailed description of each panel.			
2. In writing the figure title, we encourage you to re-use the subheadings of the Results section to make the relationship clear.			
3. For any figures presenting pooled data, the measures should be defined in the figure legends (for example, "Data are represented as mean ± SEM.").			
4. Each legend should refer to any supporting items in the Supplemental Information (e.g., "See also Fig. S1.").			
For example:			
Supplementary materials		√	×
Authors of accepted manuscripts may provide related supplemental data to be posted online along with the published manuscript.			
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2. This may include figures, tables, or appendices but excludes large datasets.			
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For example:			
Note: The journal is not responsible for any errors contained in data supplements.			

For other parts of manuscript should include:

Typeface format		√	×
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2. The first line indents 0.5 inch of a new paragraph.			
3. Sub-headings and general headings should be presented in lower case letters (not capitals).			
4. Use British English or American English spellings throughout your manuscript, but not both.			
5. Do not use page breaks in your manuscript.			

6. Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading.		
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Equations and symbols		
1. Manuscripts with many mathematical characters and equations should be prepared using MathType version 6.0 or higher or word-processing tools such as Word's Equation Editor.	√	×
For example:		
Abbreviations and units		
1. Symbols for physical units should be restricted to System International units (SI) should be used without definition.	√	×
2. Generic names of drugs and pesticides are preferred; if trade names are used, the generic name should be given at first mention.		
3. The doses of the drugs should be given as unit weight/unit body weight, e.g. mmol/kg or mg/kg. Genus and species names should be in italics.		
4. Please use the standard mathematical notation for formulae, symbols, etc.		
5. Always use a leading zero (0) before decimal points: 0.5 NOT .5.		
6. Decimal points should use a full stop/period (.) NOT a comma(,).		
7. A space should be inserted before measurement units: 132 bp NOT 132bp, 5 mm NOT 5mm, 1 h NOT 1h.		
8. Symbols for genes should be italicized(p53), whereas symbols for proteins are not italicized (p53). Gene names that are written out in full are not italicized (tumor protein 53).		
For example:		

Figures	√	×
1. A caption should be given to each figure and be placed immediately beneath its figure.		
2. The captions for the figures should not be included in the figures and should be editable.		
3. Figures should be numbered consecutively throughout the manuscript using the single-number system. Such as: Fig. 1, Fig. 2, Fig. 3...		
4. The number of the figures should be unified. Such as: Fig. 1, Fig. 2, Fig. 3... Don't use fig. 1, Figure 2, fig. 1.		
5. There should be no wavy lines in the figures.		
6. The contents in the figures should be clear.		
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14. Do not import or copy past the images into Word or PowerPoint.		
15. BMP, GIF, PCT, PNG or low quality JPEG files originally saved at low quality is not acceptable.		
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17. Minimum resolution for all figures is 300 dpi. For figures that contain both photographs and line art or text, 600 dpi is highly recommended. Figures containing only black and white elements (line art, no color, and no gray) should be 1,000 dpi. Maximum figure size is 7 in wide x 9 in high (17.5 x 22.8 cm) at the correct resolution.		

<p>18. Use RGB as figures' color model will offer the best reproduction of your data in the final PDF version of your article on screen. CMYK mode is also acceptable. Fluorescence images must be submitted for publication in color. Black and white figures and line art: grey scale mode or RGB mode.</p>		
<p>19. Figures are cited sequentially in the text using Arabic numerals (for example, Fig. 1).</p>		
<p>20. Type appearing within figures (axis labels, for example) is in Arial or a similar typeface and is of sufficient size and contrast to retain clarity if reduced in size. Avoid use of bold type in figure labels.</p>		
<p>21. Labels should be sized in proportion to the image, sharp, and clearly legible.</p>		
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<p>23. Figures may be divided into separate sections. Each section may be saved as a separate file (clearly indicated in file name) or included together in one file (with parts clearly labeled). Separate parts of a figure should be labeled using just A, B, C, NOT a, b, c, 1A, 1B, 1C. Place A, B, C to the top left of each section of the figure. And each section of the figure should be well-arranged.</p>		
<p>24. The labels should be of the same font and size in all figures. Also, the numbering should be of the same font and size in all figures.</p>		
<p>25. Labels should be evenly spaced and aligned, easy to see (including exponential numbers around figure axes), and NOT faded, broken, or distorted by JPG compression artifact.</p>		
<p>26. If any magnification is used in the photographs, indicate this by using scale bars within the figures themselves.</p>		
<p>27. Avoid gratuitous use of color for decorative effect, boxes around graphs and figures, and small type and symbols on large graphs; avoid pairing red and green in graphs to ensure legibility for color-blind readers. Whenever possible, do not place labels over any part of a color figure. Do not include tabular material within figures.</p>		
<p>28. Do NOT use light grey color lines or labels.</p>		
<p>29. There must be strong contrast between labels and their background (e.g., labels placed over shaded bar graphs should be in a color that stands out against the shading, NOT blend in with it). Whenever possible, labels should be placed in black font on a white background. Consider using a black label with a white stroke applied to create contrast.</p>		

30. The first letter of each phrase, NOT each word, should be capitalized [e.g., ‘Overall survival (months)’ not ‘Overall Survival (Months)’ and not ‘overall survival (months)’].		
31. Do not include titles or captions within your illustrations.		
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<p>Note 16: Empty white space surrounding a figure should NOT be included when calculating image size. Images should, therefore, be cropped (cut) as close to the outside edges of the figure as possible.</p> <p>Note 17: Resolution settings in many software programs (including vector programs such as Illustrator) default to low resolution (72 dpi) when placing images. Be certain to set resolution prior to beginning your figure layout.</p>		
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2. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end.		
3. The data presented in tables do not duplicate results described elsewhere in the article.		
4. Tables with sections (for example, Table 1A, 1B, 1C) are not acceptable.		
5. For each table, please supply a table caption (title) explaining the contents of the table.		
6. Place any table notes below the table body. If bold or italic font is used within a table to indicate some feature of the data, please give an explanation of its usage in the legend.		
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8. Footnotes should be listed with superscript lowercase letters, beginning with “a.” Footnotes may not be listed with numbers or symbols.		
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1. Please add the numbers from the first part of the manuscript. The first part should be numbered as “1. Introduction”.		
2. The number of the titles should be successive.		
3. The number of the subtitles under the same part should be no less than two. Such as, there should be at least two subtitles 2.1, 2.2 under title 2; there should be at least two subtitles 2.1.1, 2.1.2 under subtitle 2.1.		
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