**The template is designed to help the submission of your article. For more detailed information about *Genome Biology* and its submission guidelines, please go to the journal’s official website.**

* [*Genome Biology* homepage](https://genomebiology.biomedcentral.com/?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)
* [Submission guidelines](https://genomebiology.biomedcentral.com/submission-guidelines?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)
* Submission link: <https://www.editorialmanager.com/gbio/default.aspx>
* [Information on fees and funding](https://genomebiology.biomedcentral.com/submission-guidelines/fees-and-funding?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)
* If your manuscript describes a methodological advance or new software tool, please see the information about [Method](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript/method?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)and [Software](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript/software?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)manuscripts

**Submission notes:**

* Your manuscript must include a 'Declarations' section.
* Use double line spacing, include line and page numbering, do not use page breaks in your manuscript
* Use SI units: Please ensure that all special characters used are embedded in the text, otherwise they will be lost during conversion to PDF
* The Abstract should not exceed 250 words. Please minimize the use of abbreviations and do not cite references in the abstract. The abstract must include the following separate sections: Background, Results, and Conclusions.
* The following word processor file formats are acceptable for the main manuscript document: Microsoft word (DOC, DOCX), Rich text format (RTF), [TeX/LaTeX](https://bmcbioinformatics.biomedcentral.com/submission-guidelines/preparing-your-manuscript?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#preparing+main+manuscript+text) (use BioMed Central's TeX template). If a TeX format is submitted, please include a reference PDF of the manuscript.
* Note that editable files are required for processing in production.

**Title Page**

The title page should:

* present a title that includes, if appropriate, the study design, e.g.:
  + "A versus B in the treatment of C: a randomized controlled trial", "X is a risk factor for Y: a case control study", "What is the impact of factor X on subject Y: A systematic review"
  + or for non-clinical or non-research studies, a description of what the article reports
* list the full names and institutional addresses for all authors​​​​​​​
  + if a collaboration group should be listed as an author, please list the Group name as an author. If you would like the names of the individual members of the Group to be searchable through their individual PubMed records, please include this information in the “Acknowledgements” section in accordance with the instructions below
* indicate the corresponding author

**Article Title**

Firstname-1 Lastname-1, Firstname-2 Lastname-2, Firstname-3 Lastname-3 & Firstname-4 Lastname-4\*

**Abstract**

**Background**

Describe the context and purpose of the study.

**Results**

Write the main findings.

**Conclusions**

Present a brief summary and potential implications.

**Keywords**

Three to ten keywords representing the main content of the article.

**Background**

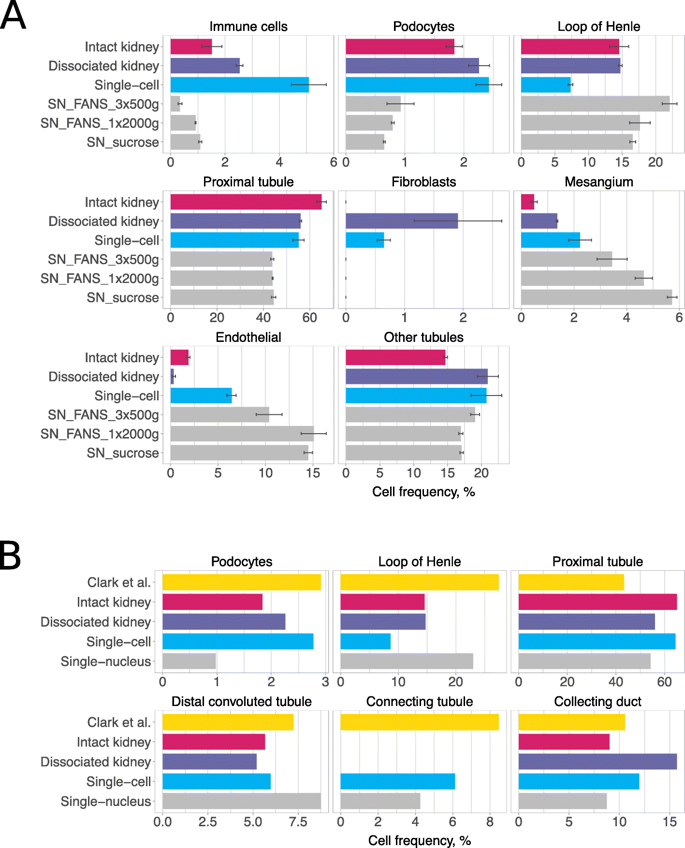
The Background section should explain the background to the study, its aims, a summary of the existing literature and why this study was necessary or its contribution to the field.

**Results**

This section should include the findings of the study including, if appropriate, results of statistical analysis which must be included either in the text or as tables (Table 1) and figures (Fig.1).

For details on how to prepare figures, visit [here](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#preparing+figures).  
For additional information on how to prepare tables, visit [here](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#preparing+tables).

**Fig. 1**



Comparison of single-cell and single-nucleus libraries. **a** Cell type composition for kidneys from Balb/c female mice. Average percentages for scRNA-seq libraries are shown in blue and for snRNA-seq libraries in gray. BSEQ-sc estimates are shown for bulk RNA-seq of intact and dissociated kidneys. Error bars are standard error of mean. **b** Abundance of renal epithelial cell types in Clark et al. study [[34](https://genomebiology.biomedcentral.com/articles/10.1186/s13059-020-02048-6#ref-CR34)] in comparison to our data from Balb/c female mice.

**Table 1 Table title (max 15 words). Legend (max 300 words) should be included underneath the table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristics** | **Group A** | **Group B** | **Group A+B** | **Group C** |
| **Age (years)** | 3.0 (0.9–7.5) | 1.0 (1.0–4.5) | 1.0 (1.0–4.5) | 1.0 (1.0–4.5) |
| > 2.5 | 22/43 (51%) | 21/43 (49%) | 21/43 (49%) | 21/43 (49%) |
| ≤ 2.5 | 21/43 (49%) | 4/7 (57%) | 4/7 (57%) | 4/7 (57%) |
| **Sex** | | | | |
| male | 23/43 (53%) | 5/7 (71%) | 5/7 (71%) | 5/7 (71%) |
| female | 20/43 (47%) | 2/7 (29%) | 2/7 (29%) | 2/7 (29%) |
| **Clinical status** | | | | |
| Asymptomatica | 0/43 (0%) | 2/7 (29%) | 2/50 (4%) | 0/26 (0%) |
| Very mild | 0/43 (0%) | 5/7 (71%) | 5/50 (10%) | 0/26 (0%) |
| Mild | 41/43 (95%) | 0/7 (0%) | 41/50 (82%) | 26/26 (100%) |
| Severe | 0/43 (0%) | 0/7 (0%) | 0/50 (0%) | 0/26 (0%) |
| Critically ill | 2/43 (5%) | 0/7 (0%) | 2/50 (4%) | 0/26 (0%) |
| **Symptoms** | | | | |
| Fever | 29/43 (67%) | 3/7 (43%) | 32/50 (64%) | 21/26 (81%) |
| Cough | 21/43 (49%) | 1/7 (14%) | 22/50 (44%) | 19/26 (73%) |
| Myalgia/fatigue | 2/43 (5%) | 0/7 (0%) | 2/50 (4%) | 0/26 (0%) |
| Sore throat | 1/43 (2%) | 0/7 (0%) | 1/50 (2%) | 0/26 (0%) |
| Diarrhea | 3/43 (7%) | 0/7 (0%) | 3/50 (6%) | 0/26 (0%) |

aNo clinical symptoms and no abnormal CT findings

Results that would otherwise be indicated as "data not shown" should be included as additional files. BioMed Central requires that supporting data are included as additional files or deposited in a recognized repository. The maximum file size for additional files is recommended as 20 MB each. Each additional file should be cited in sequence within the main body of text. For more information on additional files, visit: [here](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#preparing+additional+files).

**Discussion**

For research articles, this section should discuss the implications of the findings in the context of existing research and highlight limitations of the study. For study protocols and methodology manuscripts, this section should include a discussion of any practical or operational issues involved in performing the study and any issues not covered in other sections.

**Conclusions**

This should state clearly the main conclusions and provide an explanation of the importance and relevance of the study to the field.

**Methods**

The methods section should include:

* the aim, design and setting of the study,
* the characteristics of participants or description of materials,
* a clear description of all processes, interventions, and comparisons. Generic drug names should generally be used. When proprietary brands are used in research, include the brand names in parentheses,
* the type of statistical analysis used, including a power calculation if appropriate.

**References**

Examples of the Vancouver reference style are shown [here](https://genomebiology.biomedcentral.com/submission-guidelines/preparing-your-manuscript/research?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template). All web links and URLs, including links to the authors' own websites, should be given a reference number and be included in the reference list rather than within the text of the manuscript.

**Declarations**

All manuscripts must contain the following sections under the heading 'Declarations': Ethics approval and consent to participate, Consent for publication, Availability of data and materials, Competing interests, Funding, Authors' contributions, Acknowledgements, and Authors' information (optional). If any of the sections are not relevant to your manuscript, please include the heading and write 'Not applicable' for that section.

Ethics approval and consent to participate

Manuscripts reporting studies involving human participants, human data or human tissue, a statement must be included that written consent was given from all participants and also a statement that the experimental methods comply with the Helsinki Declaration.

* 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 and for experimental studies involving client-owned animals, authors must also include a statement on informed consent from the client or owner. For more information, visit [here](https://www.biomedcentral.com/getpublished/editorial-policies?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#ethics+and+consent).

Consent for publication

If your manuscript contains any individual person’s data in any form (including any individual details, images or videos), consent for publication must be obtained from that person, or in the case of children, their parent or legal guardian. All presentations of case reports must have consent for publication.

You can use your institutional consent form or our [consent form](https://resource-cms.springernature.com/springer-cms/rest/v1/content/6633976/data/v2) if you prefer. You should not send the form to us on submission, but we may request to see a copy at any stage (including after publication).

For more information on consent for publication, visit [here](https://www.biomedcentral.com/getpublished/editorial-policies?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#consent+for+publication).

Availability of data and materials

All manuscripts must include an ‘Availability of data and materials’ statement. Data availability statements should include information on where data supporting the results reported in the article can be found including, where applicable, hyperlinks to publicly archived datasets analysed or generated during the study. We recognise it is not always possible to share research data publicly, for instance when individual privacy could be compromised, and in such instances data availability should still be stated in the manuscript along with any conditions for access. If your manuscript does not contain any data, please state 'Not applicable' in this section. For more information, visit: [here](https://www.springernature.com/gp/authors/research-data-policy/data-availability-statements/12330880?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template)

Competing interests

All financial and non-financial competing interests must be declared in this section.

See our [editorial policies](https://www.biomedcentral.com/getpublished/editorial-policies?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#competing+interests) for a full explanation of competing interests. If you are unsure whether you or any of your co-authors have a competing interest, please contact the editorial office.

Please use the authors initials to refer to each authors' competing interests in this section.

If you do not have any competing interests, please state "The authors declare that they have no competing interests" in this section.

Funding

All sources of funding for the research reported should be declared. The role of the funding body in the design of the study and collection, analysis, and interpretation of data and in writing the manuscript should be declared.

Authors’ Information

You may choose to use this section to include any relevant information about the author(s) that may aid the reader's interpretation of the article and understand the standpoint of the author(s). This may include details about the authors' qualifications, current positions they hold at institutions or societies, or any other relevant background information. Please refer to authors using their initials. Note this section should not be used to describe any competing interests.

*Affiliations*

**School of Engineering and Material Science, Queen Mary University of London, London, UK**

FirstnameInitials-1 Lastname-1, FirstnameInitials-2 Lastname-2 & FirstnameInitials-3 Lastname-3

**Process & Energy Department, Faculty of Mechanical, Maritime and Materials Engineering, Delft University of Technology, Delft, The Netherlands**

FirstnameInitials-4 Lastname-4

*Contributions*

The individual contributions of authors to the manuscript should be specified in this section. Please use initials to refer to each author's contribution in this section, for example: "FC analyzed and interpreted the patient data regarding the hematological disease and the transplant. RH performed the histological examination of the kidney and was a major contributor in writing the manuscript. All authors read and approved the final manuscript."

*Corresponding author*

Correspondence to: Firstname-4 Lastname-4

Acknowledgements

Please acknowledge anyone who contributed towards the article who does not meet the criteria for authorship including anyone who provided professional writing services or materials. Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements section. For more information, visit [here](https://www.biomedcentral.com/getpublished/editorial-policies?utm_source=other_website&utm_medium=display&utm_content=mpu&utm_campaign=BSCN_3_CZ01_CN_GB_Template#authorship).

You may also wish to include a section here about our Additional file requirements (supplementary information). Supplemental figures should be combined into one file, with legends included. Supplementary tables should be submitted as individual Excel files (not tabs on the same file), or in a .doc format. There should be a section at the end of the Declarations listing the additional files with a short description of each, and they should be referred to throughout the text in the format (Additional file 1: Fig S1).