

SOP for Construction, Review, Revision of Anatomical Structure and Cell Types and Biomarker (ASCT+B) Tables

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September 18, 2020

Introduction

Anatomical Structures, Cell Types, plus Biomarkers (ASCT+B) tables aim to capture the nested *part_of* structure of anatomical human body parts, the typology of cells, and biomarkers used to identify cell types (e.g., gene, protein, lipid or metabolic markers). The tables are authored and reviewed by an international team of anatomists, pathologists, physicians, and other experts.

Identification of Subject Matter Experts (SMEs)

- CCF Experts (cross-consortium team lead by MC-IU) invite leading organ experts to contribute to the design of ASCT+B tables.
- Leading organ experts submit information on their expertise and credentials via this online [form](#).
- CCF Experts approve 3-5 experts per organ and give them access to the ASCT+B table forms so they can author and review the forms.

Construction by Subject Matter Experts (SMEs)

- MC-IU provide pre-populated initial ASCT+B table with UBERON and CL ontology IDs.
- A first set of organ experts authors the tables and indicates author contributions.
- Authors use the [ASCT+B Reporter](#) to identify/resolve naming and interlinkage issues.
- Completed tables are submitted to the CCF Experts for review.

Review by Subject Matter Experts (SMEs)

- The beginning of each month, all tables ready for review are submitted by CCF Experts to a second set of organ experts for review.
- Review criteria include: scientific rigor (citation of publications, data), coverage and quality of the ASCT+B tables.
- Review results comprise detailed comments together with a rating (accepted, accepted with minor or major revisions, rejected) and are shared back with the author team.

Review by CCF Experts

The begin of each month, all tables ready for review are cross-checked against

1. existing ontologies, e.g., UBERON, CL, to identify any terms that might be missing or that might have different spelling. The goal is to arrive at ASCT+B tables that are in close alignment with existing ontologies so only few changes need to be requested from ontology owners.

2. Existing (or planned) 3D organ models, e.g., those designed by NIAID, see CCF 2D Reference Object Library, <https://hubmapconsortium.github.io/ccf/pages/ccf-3d-reference-library.html>

Review results include detailed comments together with a rating (accepted, accepted with minor or major revisions, rejected) and are shared back with the author team.

Revision

- Typically, authors have 1 month to revise the original table(s) based on expert feedback.
- CCF Experts are informed when all changes have been made so they can initiate the review process.

References

- ASCT+B Reporter: <https://github.com/hubmapconsortium/ccf-asct-reporter>