# How to submit a taxonomic proposal to ICTV

ICTV welcomes taxonomic proposals from any interested individual. Please complete the relevant template modules (see Instructions, below) and e-mail them to the appropriate Subcommittee Chair. Information on the seven virus Subcommittees and their Chairs can be found at <a href="https://ictv.global/sc">https://ictv.global/sc</a>.

Proposals will be forwarded to all relevant Study Groups and comments relayed to the authors. The proposals are also available for public comment on the ICTV web site until the next annual meeting of the Executive Committee (EC), when Subcommittee Chairs (or their deputies) present the taxonomic proposals for discussion. Straightforward proposals to create new species in an existing genus or to create new genera in an existing family may be approved at the next EC meeting. Some proposals, especially more complex proposals, may be approved conditionally and will continue to be available for public comment before a final decision by the EC is reached. Importantly, proposals do not become accepted taxonomy until a final ratification vote by the ICTV membership is conducted. The ratification vote usually occurs only once annually in February.

# 1. The information needed by ICTV

Carefully completed proposals are not only easier for your colleagues to assess but are also more likely to proceed smoothly and avoid the need for revision.

- Please provide enough information with any proposal for the creation of a new taxon (species, genus, etc.) to show that it has the required properties to be placed in any more highly ranked taxon (genus, family, order, etc.) to which it is being assigned and that it is sufficiently distinct from its most closely related taxon.
- Proposals for new species will need to state the **species demarcation criteria** established for the genus and **show that the candidate species meets these requirements**. Each new species must be assigned to a genus, whether existing or novel.
- Proposals for the creation of a new taxon at higher ranks require clear justification with reference to all
  related existing taxa. The ICTV provides for 15 levels of taxonomic classification (from realm to species)
  but, when proposing a new taxon, you need only to refer to its placement within the next highest existing
  taxonomic level.
- Most proposals benefit from a phylogenetic tree to depict genetic relationships between proposed and existing taxa: please provide a tree where branch length is proportional to genetic distance, generated using an appropriate algorithm (e.g., Neighbour-joining, Maximum Likelihood or Maximum Clade Credibility) and provide evidence of the reliability of the branching (e.g., by bootstrapping, posterior probability, aLRT). Use colour differences, symbols etc., to draw attention to the position(s) of the proposed new taxa and provide a legend or key so that existing taxa can easily be recognised. Tip labels should be annotated with INSDC nucleotide accession numbers but individual sequences or clades should be also annotated with virus or taxon names.
- Proposals are posted on the ICTV public web site, so please be aware that copying content from
  publications requires an appropriate acknowledgement and may require prior permission from the
  copyright holder.
- You will need to provide the origin and rationale for each proposed taxonomic name in the proposal.
   This is inserted into the table Etymology (origin) of proposed taxonomic names in part 3 of the Word module. A longer explanation can be provided in the main section of the taxonomy proposal if required.
   As a guide, etymologies of all existing taxon names are listed at <a href="https://ictv.global/taxonomy/etymology">https://ictv.global/taxonomy/etymology</a>.
- If a proposal involves a **new taxon name that has been derived from the name of a living person**, you are required to provide evidence that the person has authorised use of their name, and that they agree to the form in which **their name or an element of it** is to be used. Evidence of authorisation may be in the form of a signed letter or email which must be included as an attachment to the proposal. These attachments will not be posted online but will be retained by the ICTV. It is ICTV practice not to name the realms after persons, living or deceased; it also discourages the use of person's names for ranks above the level of order. Taxa cannot be named after currently serving members of the ICTV or Study Groups.

## 2. Taxonomic proposal templates

Proposals must be prepared using the ICTV templates. As these templates may change periodically, you must use the most recent versions which are available at <a href="https://ictv.global/taxonomy/templates">https://ictv.global/taxonomy/templates</a>. There are two templates:

- A Word-formatted module (**TP\_Template\_Word\_module\_2025**) for title, authors, approvals and supporting evidence. It also contains a section for non-standard proposals (see §3, below).
- An Excel module (**TP\_Template\_Excel\_module\_2024**). This is used to present the proposed taxonomic change(s) as a comparison of old and new taxonomic structures. This is described in more detail in \$5 below.

# 3. Types of proposal

<u>Taxonomic proposals</u>: The great majority of proposals will be to create new taxa and/or change existing taxa. For all such proposals you will need to complete **BOTH** Parts 1 and 3 of the Word module (TP\_Template\_Word\_module\_2024) <u>AND</u> the Excel module, (TP\_Template\_Excel\_module\_2024). Please follow the instructions shown in <u>red font</u>.

**NOTE:** The **Excel module is the critical document** that will be used to implement the proposed taxonomic changes once they are approved and ratified. If the information required in the Excel module is presented only in the Word module, **the proposed taxonomic changes cannot proceed**.

**Non-standard proposals:** For any proposal regarding ICTV procedures, rules or policy, <u>not</u> involving the creation of new taxonomy, it is usually necessary to complete only Parts 1 and 2 of TP\_Template\_Word\_module\_2024.docx. The Excel module is not normally needed.

# 4. Authorship of proposals and published taxonomy proposal summaries

ICTV will publish summaries of proposals from each subcommittee when they are ratified in the Journal of General Virology. This will enable the taxonomy changes described within to be cited and linked to the full text of the proposals in the ICTV website. Published summaries will include an alphabetical list of all contributing authors and you will be contacted by the subcommittee chair to obtain your consent for coauthorship, provide your ORCID ID and to verify your affiliation.

Please ensure that all authors are listed with a 4-part affiliation (department, institution, city and country) and email address. This information should be provided for **each author** (Surname and initial(s)) in the Table provided. Add additional rows for additional authors as required. Please also indicate **one or more corresponding authors** for the proposal. Complete and correctly formatted author information is essential for future processing of the proposal and publication of summaries. Incorrectly filled forms will be returned to the submitter.

# 5. Steps in approval of taxonomy proposals by the ICTV Executive committee (EC)

Taxonomy proposals are processed in an annual cycle of submission, scrutiny by the ICTV Executive Committee at their annual meeting normally in July or August, EC approval of proposals requiring modification in November, ratification by the whole ICTV membership in February. Those voted for will then be used to update the ICTV taxonomy Master Species List and associated databases; summaries of the proposals will be published in the Journal of General Virology.

#### 6. How to present taxonomic changes in the spreadsheet

Guidelines for completing the Excel module (TP\_Template\_Excel\_module\_2024) are provided below. A number of simple and more complex worked examples are provided in the document **Taxonomic\_Proposals\_Examples\_2025** which is also available at <a href="https://ictv.global/taxonomy/templates">https://ictv.global/taxonomy/templates</a>.

Proposed taxonomic changes are to be presented by reference to old and new taxonomic structures – old on the left, new on the right – each set out hierarchically as in the Master Species List (<a href="https://ictv.global/msl">https://ictv.global/msl</a>). Please follow the instructions in blue at the top of the spreadsheet.

## General rules

Existing taxonomy hierarchy (columns A-O) is compared with that proposed (Columns P-AK).
 Each row of the spreadsheet conveys information about only one taxon; i.e., every taxon that is subject to change has its own, dedicated row in the spreadsheet.

- The subject of each row is the lowest ranked entry on that row (i.e., the entry furthest to the right). The other entries on that row provide context, specifying the old and new taxonomic positions.
- When a new taxon is created, the left-hand side of the row (columns A-O) is left blank.
   Conversely, when a taxon is abolished, the right-hand side (columns P-AK) is blank. Columns AL and AM, which specify the taxonomic change, must be filled.
- Any change to a higher taxon (assign, move, abolish, etc.) is deemed to apply also to its constituent taxa, unless action is taken to move them elsewhere.
- For each new species, you should provide:
  - o Column AE, **Exemplar**: the INDSC (eg. GenBank, EMBL, DDBJ) Accession Number for the exemplar virus referred to in column AG. This entry is <u>mandatory</u>.
  - Proposals for species will only proceed if a coding complete genome sequence is publicly available on an INDSC dataset. Proposals that refer to partial or unreleased sequences cannot proceed and the TP will be returned to the submitter for revision.
  - o Column AF, **Exemplar**: the name of the exemplar virus referred to in column AF. Please use the correct orthography (see below).
  - o Column AG, **Abbreviation**: If you wish to include a new or existing standard abbreviation for the virus name, enter it here.
  - Oclumn AH, **Isolate designation:** A short code (usually obtained from the GenBank record) used to identify the specific isolate of the exemplar virus (enter "nk" if not known).
  - Column AI, Genome coverage: Please indicate the degree of completeness of the sequence (CG complete genome; CCG complete coding genome; PG partial genome) using the drop-down menu. The exemplar sequence will normally be expected to be a complete genome and must be publicly available.
  - O Column AJ, **Genome composition**. Please indicate the genome composition of the viruses that are being proposed in the new taxon using the drop-down menu.
  - Column AK, Host/Source. Please indicate the host of the virus or source of the genomic sequence from environmental samples using the drop-down menu.
- The 15 taxonomic ranks listed in TP\_Template\_Excel\_module\_2024.xlsx are the ones currently used in ICTV taxonomy. It is not possible to make a taxonomic proposal dealing with "tentative species" or any category below the rank of species.
- Guidelines for naming all taxonomic ranks (i.e., from realm to species) are set out in the ICTV Code of Virus Classification. Rules on orthography of virus species, other taxon names and virus names can be found in the document named How\_to\_write\_virus\_species\_and\_other\_taxa\_names.pdf, available at <a href="https://ictv.global/files/info">https://ictv.global/files/info</a>.

#### **Notes:**

- 1. Virus names, abbreviations, isolate designations and the virus host/source (columns AF, AG, AH and AK) have no official taxonomic status and are not a formal part of the proposal. However, they will be listed in the ICTV Report and in summaries of taxon information such as the Virus Metadata Resource (<a href="https://ictv.global/vmr">https://ictv.global/vmr</a>). Comments in column AN serve as an aid to readers and are not a formal part of the proposal.
- 2. Names of **new taxa** (including renamed taxa) should be written in **red font** for clarity. This should **not** be done for taxa that already exist or are only moved.
- 4. Multiple entries in column AE (Exemplar GenBank Accession Number) should be separated by a semicolon delimiter. This applies, for example, to virus genomes that are segmented.

### 7. Naming your taxonomic proposal

Taxonomy proposals are assigned an explanatory title (first entry in the Word Module), eg. "Creating three species in the genus Hepacivirus, family Flaviviridae. You should use an abbreviated name for the filename of the Word and Excel modules of the proposal, that includes name of the taxon affected by the proposal and an abbreviated indication of the taxonomy changes proposed – in the above example, perhaps "Hepacivirus\_3nsp.docx" and "Hepacivirus\_3nsp.xlsx". Multiple changes can be separated an underline "\_" character, for example, "Picornaviridae\_2ng\_5nsp.docx", ".... .xlsx").

#### Standard abbreviations for filenames:

ns or newsp: new species; ng or newgen: new genus; nf or newfam, new family etc. rns, rng, rnf, or spren, genren, famren: rename species, genus or family

Other actions include move: m or mov, reorganise: ro or reorg, abolish: a or ab Taxon abbreviations include species: s/sp; genus: g/gen; family: f/fam; order: o/ord, class: c; phylum: p

Ensure that the same filename root is used in both the Word and Excel modules. The proposals will be formally recoded to record the year, subcommittee, version, status, taxon and taxonomic change by the subcommittee chair after submission.

If you have any further questions about the forms or the procedures, please contact one of the Secretaries or Subcommittee Chairs. Names and e-mail addresses can be found at <a href="https://ictv.global/members/ec-members">https://ictv.global/members/ec-members</a>.