

ICTV at the Paris ICV: Results of the Plenary Session and the Binomial Ballot

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The Plenary Session

The Plenary Session of ICTV took place at the International Congress of Virology in Paris on 30th July 2002. It was attended by around 100 virologists from at least 22 different countries. The business consisted of :

1. Report by the President (Marc van Regenmortel)

The President reported that since the previous (Sydney) Plenary session, the 7th ICTV Report had been published [3]. Unfortunately it was about a year late, a situation not of ICTV's making, but had since sold about 1300 copies. The major change was that English names had been adopted as the names of species, reflecting the use of English as the international language of virology. He emphasized that ICTV does not invent common (vernacular) names for viruses.

Since 1999 there had been two interim meetings of the Executive Committee and publication in Virology Division News had continued to be the principal medium of communication with the virology community. The ICTV is committed to publishing an 8th ICTV Report, with a current target date of Summer 2004.

There had been significant procedural changes since 1999. There is now greater consultation with virologists both within and outside ICTV. Taxonomic proposals are now routinely published on the ICTVnet (www.danforthcenter.org/iltab/ictvnet) and comments are invited. These are considered by proposers and the EC before the final proposals are passed to the ICTV membership for approval.

A novelty implemented at the Congress was a consultation concerning the use of a non-latinized binomial nomenclature for species names. The results will be considered by the EC when deciding what action to take.

In response to questions about the voting procedures used at the Plenary Session, the President assured those present that these were as laid down in the Statutes of ICTV [3] (and had been since at least 1996). He stated that it was possible to amend the Statutes by making a proposal to the EC.

2. Election of the new Executive Committee (EC)

Nominations had been received for vacant positions and there were 9 nominations for the 8 vacancies for elected members. The Nominations subcommittee of the EC, acting as required by Statute, arranged a slate in which there was a contest between two plant virologists (Drs L Bos and HJ Vetten) for one of the vacancies. The election was won by Dr H. J. Vetten.

The new ICTV Executive Committee is:

Officers

President	L. A. Ball
Vice-President	J. Maniloff
Secretaries	C. M. Fauquet; M. A. Mayo
Subcommittee Chairs	A. A. Brunt (viruses of plants) A. J. Della-Porta (virus database) R. W. Hendrix (viruses of prokaryotes) B. I. Hillman (viruses of fungi and algae) D. J. McGeoch (viruses of vertebrates) J. M. Vlak (viruses of invertebrates)
Elected members	L. Blaine H. Brüssow E. B. Carstens U. Desselberger A.-L. Haenni A. M. Q. King A. C. Palmenberg H. J. Vetten

The President thanked the outgoing EC members (Drs M. Estes, C. Ward and D.H. Bamford) for their work for ICTV during their 6 year tenures and welcomed the new members present to the EC.

3. Reports by Subcommittee Chairs

There were brief reports concerning the activities of each of the six Subcommittees. These were followed by the presentation of taxonomic proposals. These received unanimous approval, except that from the *Adenoviridae* Study Group, which was passed by 26 votes to 1. The proposals that are now accepted taxonomic changes were:

Vertebrate Virus Subcommittee

***Filoviridae* Study Group**

- 2002.V034. 05: To change the species name *Marburg virus* to the species name *Lake Victoria marburgvirus*.
- 2002.V035. 05: To change the former species name *Zaire Ebola virus* to *Zaire ebolavirus*

- 2002.V036. 05: To change the former species name *Cote d'Ivoire Ebola virus* to **Ivory Coast ebolavirus**.
- 2002.V037. 05: To change the former species name *Reston Ebola virus* to *Reston ebolavirus*
- 2002.V038. 05: To change the former species name *Sudan Ebola virus* to *Sudan ebolavirus*
- 2002.V039. 05: To replace the temporary genus names “Marburg-like viruses” and “Ebola-like viruses”, with the names *Marburgvirus* and *Ebolavirus* respectively.

Retroviridae Study Group

- 2002.V043. 05: To create two subfamilies within the family *Retroviridae*. The first one would contain the six genera: *Alpharetrovirus*, *Betaretrovirus*, *Gamma-retrovirus*, *Deltaretrovirus*, *Epsilonretrovirus* and *Lentivirus*. The second one would contain a single genus, *Spumavirus*.
- 2002.V044. 05: To name the first subfamily *Orthoretrovirinae*
- 2002.V045. 05: To name the second subfamily *Spumaretrovirinae*.
- 2002.V046. 05: To incorporate the genera *Alpharetrovirus*, *Betaretrovirus*, *Gamma-retrovirus*, *Deltaretrovirus*, *Epsilonretrovirus* and *Lentivirus*, currently genera of the family *Retroviridae*, within the new subfamily *Orthoretrovirinae*.
- 2002.V047. 05: To incorporate the genus *Spumavirus*, currently a genus of the family *Retroviridae*, within the new subfamily *Spumaretrovirinae*.
- 2002.V048. 05: To designate *Simian foamy virus* as the new type species of the genus *Spumavirus* instead of Chimpanzee foamy virus, now a strain of the species *Simian foamy virus*.
- 2002.V049. 05: To incorporate in the species *Simian foamy virus*, the new type species of the genus *Spumavirus*, the strains Chimpanzee foamy virus, Simian foamy virus 1 and Simian foamy virus 3, previously listed as species in the genus *Spumavirus*.

Adenoviridae Study Group

- 2002.V050. 05: To create species *Ovine adenovirus D* (OAdV-D) to contain ovine adenovirus 7 (OAdV-7, isolate OAV287).
- 2002.V051. 05: To create species *Bovine adenovirus D* to contain bovine adenovirus 4.
- 2002.V052. 05: To create species *Possum adenovirus* to contain possum adenovirus 1 (PoAdV-1).
- 2002.V053. 05: To create species *Duck adenovirus A* to contain duck adenovirus 1 (DAdV-1, syn. egg drop syndrome virus).
- 2002.V054. 05: To create a new genus within the family *Adenoviridae*.
- 2002.V055. 05: To name the genus proposed in 2002.V054.02: *Atadenovirus*.
- 2002.V056. 05: To assign species *Ovine adenovirus D*, *Bovine adenovirus D*, *Duck adenovirus A*, and *Possum adenovirus* to genus *Atadenovirus*.
- 2002.V057. 05: To designate *Ovine adenovirus D* (OAdV-7) to be the type species of the genus *Atadenovirus*.

- 2002.V058.05: To create species *Frog adenovirus* to contain frog adenovirus 1 (FrAdV-1).
- 2002.V059.05: To create species *Turkey adenovirus A* to contain turkey adenovirus 3 (TAdV-3, syn., hemorrhagic enteritis virus, marble spleen disease virus).
- 2002.V060.05: To create a new genus within the family *Adenoviridae*.
- 2002.V061.05: To name the new genus created in 2002.V060.02: *Siadenovirus*.
- 2002.V062.05: To assign species *Frog adenovirus* and *Turkey adenovirus A* to genus *Siadenovirus*.
- 2002.V063.05: To designate *Frog adenovirus* to be the type species of the genus *Siadenovirus*.

***Astroviridae* Study Group**

- 2002.V064.05: To remove the unique genus *Astrovirus* from the family *Astroviridae*.
- 2002.V065.05: To create two new genera in the family *Astroviridae*.
- 2002.V066.05: To name the first genus *Mamastrovirus*.
- 2002.V067.05: To assign *Human astrovirus* (HAstV) as the type species of the genus named in 2002.V066.02.
- 2002.V068.05: To assign all the astroviruses infecting mammals to the genus *Mamastrovirus* including: *Bovine astrovirus* (BAstV), *Feline astrovirus* (FAstV), *Human astrovirus* (HAstV), *Ovine astrovirus* (OAstV), and *Porcine astrovirus* (PAstV).
- 2002.V069.05: To name the second genus *Avastrovirus*.
- 2002.V070.05: To assign *Turkey astrovirus* (TAstV) as the type species of the genus named in 2002.V069.02.
- 2002.V071.05: To assign all the astroviruses infecting avians to the genus *Avastrovirus* including: *Duck astrovirus* (DAstV), *Turkey astrovirus* (TAstV), and *Avian nephritis virus* (ANV).

***Circoviridae* Study Group**

- 2002.V022.05: To recognise *Porcine circovirus 1* and 2 (PCV1, PCV2) as separate species in the genus *Circovirus*.
- 2002.V023.05: To classify *Pigeon circovirus* (PiCV) as a new member of the genus *Circovirus*.
- 2002.V024.05: To classify *Goose circovirus* (GoCV) as an additional member of the genus *Circovirus*.
- 2002.V025.05: To classify *Canary circovirus* (CaCV) as an additional species of the genus *Circovirus*.

Invertebrate Virus Subcommittee

***Dicistroviridae* Study Group**

- 2002.I095.05: To create a new genus of invertebrate-infecting viruses that have RNA genomes and small isometric virions; the genus is not assigned to any family, but is closely related to the family *Dicistroviridae*.

- 2002.I096. 05: To name this new genus *Iflavirus*.
 2002.I097. 05: To assign the species *Infectious flacherie virus* (IFV) as the type species of the genus *Iflavirus*.
 2002.I098. 05: To assign *Sacbrood virus* (SBV) and *Perina nuda virus* (PnV) as species in the genus *Iflavirus*.
 2002.I099. 05: To recognize *Taura syndrome virus* (TSV) as a species in the genus *Cripavirus* (family *Dicistroviridae*).

Plant Virus Subcommittee

***Luteoviridae* Study Group**

- 2002.P081. 05: To reclassify current *Barley yellow dwarf virus-PAV* strains in two different virus species. Strains with coat proteins similar to that of isolate PAV-Aus would remain in *Barley yellow dwarf virus-PAV*, while those with coat proteins similar to that of isolate PAV-129 would become *Barley yellow dwarf virus-PAS*.
 2002.P082. 05: To classify the non-beet-infecting strains of *Beet western yellows virus* as a separate species in the genus *Polerovirus*, to be named *Turnip yellows virus*.
 2002.P083. 05: To include *Beet chlorosis virus* as a new species in genus *Polerovirus*.

Fungus Virus Subcommittee

***Narnaviridae* Study Group**

- 2002.F114. 05: To designate *Ophiostoma mitovirus 3a* as a member of the genus *Mitovirus*.
 2002.F115. 05: To designate *Ophiostoma mitovirus 4* as a member of the genus *Mitovirus*.
 2002.F116. 05: To designate *Ophiostoma mitovirus 5* as a member of the genus *Mitovirus*.
 2002.F117. 05: To designate *Ophiostoma mitovirus 6* as a member of the genus *Mitovirus*.
 2002.F118. 05: To rename the type species of the genus *Mitovirus*, *Cryphonectria mitovirus 1*.
 2002.F119. 05: To designate *Rhizoctonia virus M2* as an unassigned species in the family *Narnaviridae*.
 2002.F120. 05: To change the name of the type species of the genus *Narnavirus* from *Saccharomyces cerevisiae narnavirus 20S RNA* to *Saccharomyces narnavirus 20S RNA*.
 2002.F121. 05: To change the name of species *Saccharomyces cerevisiae narnavirus 23S RNA* in the genus *Narnavirus* to *Saccharomyces narnavirus 23S RNA*.

Virus Database Subcommittee

The Universal Virus Database: ICTVdB, containing taxonomic rank and data on all ICTV approved virus names, is available on the web. Virologists are encouraged to submit

primary data on isolates characterized in their labs via the online data entry forms. The isolate data will be directed to the appropriate Study Group for use in making future taxonomic decisions. The ICTV Study Groups have been asked to enter data for at least one isolate for each type species. We are also seeking a small number of researchers to enter data for large groups of isolates to demonstrate the taxonomic features of the ICTVdB. Data submitters will be credited with their submissions and will receive ICTVdB's decimal code for the isolate (useful for linking with the sequence databanks) plus a natural language printout of the data they have entered. Entry forms and other modules of ICTVdB are found at the following URLs.

Home base: <http://ictvdb.bio2.edu>

USA site: <http://www.ncbi.nlm.nih.gov/ICTVdb>

UK site: <http://www.ictvdb.iacr.ac.uk>

China site: <http://www1.im.ac.cn/ictvdb/welcome.htm>

For more information, contact the database manager, Dr. Cornelia Büchen-Osmond at buchen@bio2.columbia.edu. We have also been working with GenBank and EBI to correct isolate information and ensure correct virus nomenclature, linking with PubMed and developing tools for taxonomic analyses.

4. The retiring president

The Plenary Session closed with a formal acknowledgement of the efforts of the outgoing President, Marc van Regenmortel. Under his stewardship, the concept of virus species became formally established, the successful 7th Report was published and ICTV procedures have continued to become more open, consultative and reasoned. These and his other contributions to virus taxonomy over the previous 6 years were signalled by warm-hearted applause.

Opinion poll on non-latinized binomial nomenclature

The proposition that ICTV change the form of species names so as to include the name of the genus (Non-latinized binomial nomenclature) has been presented in earlier issues of Virology Division News [1, 2]. To sample opinion, ICTV arranged for an opinion poll to be conducted during the International Virology Congress. At the Congress, ballot papers were issued in delegate packs and made available at the ICTV booth. The result of the poll was that there were 177 responses, with 143 (80%) in favour and 34 against.

The result shows that there is considerable support for the idea of non-latinized binomial nomenclature. In response, the Executive Committee of ICTV will pursue this initiative further by asking ICTV Study Groups and Subcommittees to consider the implications of binomial nomenclature for their particular viruses, and to report back to the Executive Committee identifying specific nomenclatural problems and proposing solutions. The Executive Committee will then debate what changes to propose to the International Code of Virus Classification and Nomenclature.

References

1. Van Regenmortel MHV (2000a) On the relative merits of italics, Latin and binomial nomenclature in virus taxonomy. *Arch Virol* 145: 433–441

2. Van Regenmortel MHV, Fauquet CM., Bishop DHL, Carstens E, Estes M, Lemon S, Maniloff J, Mayo MA, McGeoch DJ, Pringle CR, Wickner RB, (eds) (2000b) *Virus Taxonomy. Seventh Report of the International Committee on Taxonomy of Viruses*. Academic Press, New York San Diego. 1162pp
3. Van Regenmortel MHV (2001) Perspectives on binomial names of virus species. *Arch Virol* 146: 1637–1640

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