

ICTV Newsletter #13 (2015, 2016)

This newsletter is designed to inform all who are interested in the work of the International Committee on Taxonomy of Viruses (ICTV) about recent developments and to involve them more directly in taxonomic deliberations. The editor prepares and sends the newsletter to all those who have joined the ICTV discussion site at ICTVonline.org; they and others are encouraged to distribute it freely. To register, navigate to <u>http://talk.ictvonline.org/</u> and click on "join" in the upper right-hand corner of the page, near the "search" box. Registration is automatic. Once registered, sign in using the name and pass word you provided. If you are already registered, **please make sure your contact information is up-to-date.** You can do this by clicking on "edit profile" in the upper right-hand corner of the page. Comments and suggestions regarding the newsletter are welcome. Previous editions can be found <u>here</u>. This edition (#13) covers the year period from May 2015.

Executive Committee activities:

The 47th annual Executive Committee (EC) meeting (EC47) was held on 20-22 July 2015 in London, UK, and was hosted by Stuart Siddell, Subcommittee Chair, and Andrew Davison, President. This was the first regular meeting of the EC elected at the ICTV plenary meeting in Montreal, Canada in August 2014. Eighteen out of the nineteen EC members attended the two-and-a-half day meeting. The agenda included processing of taxonomic proposals, particularly discussion of classification and nomenclature of viruses identified only from genome sequencing (mostly associated with virus metagenomics), EC management, continuing development of the ICTV website, publishing taxonomy papers in the Virology Division News (VDN) section of Archives of Virology (kindly presented by Elected Member Jens Kuhn, Editor), and the activities of Wellcome Trust (WT) grant obtained by Elected Member Peter Simmonds, Andrew Davison and Stuart Siddell for on-line publication of the ICTV Report and assisting with other ICTV activities. Vice-President Alexander Gorbalenya and Secretaries Mike Adams, Andrew King and Elliot Lefkowitz joined the grantholders on the grant management committee, and two researchers employed by the grant, Donald Smith and Richard Orton, were in attendance. The next EC meeting (EC48) will be hosted by Subcommittee Chair Balázs Harrach in Budapest, Hungary on 22-24 August 2016.

Recent progress with taxonomic proposals:

Ratification of previous proposals

All proposals approved by the EC need to be ratified by the entire voting membership of ICTV for final acceptance. This includes <u>National Representatives</u>, members of the subcommittees (mostly <u>Study</u> <u>Group (SG) chairs</u>), and <u>Life Members</u>. A large number of taxonomic proposals was ratified in e-votes by

the ICTV membership in April 2016. The EC is pleased to note that the recently introduced changes to the processing of taxonomic proposals (a fast-track approval of good quality proposals; for details see ICTV Newsletter #10) have achieved their goals: there has been a considerable shortening of the processing time for a large number of proposals and a larger volume of proposals has been processed. An article reporting the taxonomic changes ratified in 2016 has been accepted for publication in the Virology Division News (VDN) section of Archives of Virology. The new format of VDN articles on ratification votes, introduced in 2015, was also adopted in 2016. It acknowledges more fully the efforts of all who contribute to changes and to improve dissemination of news about the current state of virus taxonomy.

Major taxonomic changes introduced recently

Taxonomic proposals that were ratified in April 2016 affected the largest number of families/genera ever in a single year. They created nine unassigned genera including *Aumaivirus, Papanivirus, Sinaivirus* and *Virtovirus,* and *Anphevirus, Arlivirus, Chengtivirus, Crustavirus, Wastrivirus* in the order *Mononegavirales,* seven new families including *Genomoviridae, Lavidaviridae, Mymonaviridae, Pleolipoviridae, Pneumoviridae, Sarthroviridae* and *Sunviridae.* The proposals also introduced very extensive changes to the order *Caudovirales* and changes of various degrees to thirty-five families including *Adenoviridae, Alphaflexiviridae, Anelloviridae, Arenaviridae, Arteriviridae, Ascoviridae, Baculoviridae, Betaflexiviridae, Bornaviridae, Geminiviridae, Circoviridae, Caulimoviridae, Closteroviridae, Coronaviridae, Dicistroviridae, Endornaviridae, Geminiviridae, Hepadnaviridae, Herpesviridae, Iflaviridae, Mesoniviridae, Nanoviridae, Nyamiviridae, Ophioviridae, Papillomaviridae, Paramyxoviridae, Paramyxoviridae, Potyviridae, Rhabdoviridae, Reoviridae, Secoviridae, Tombusviridae, Virgaviridae,* and three unassigned genera, Botybirnavirus, *Emaravirus,* and *Sobemovirus.*

Besides the above changes, two modifications to the Code of Virus Nomenclature were approved to disallow diacritics and other non-standard characters in taxon names and to allow classification of satellite viruses and other virus-related agents.

New taxonomic proposals

Any virologist can make taxonomic proposals to the ICTV via the appropriate <u>Subcommittee Chair</u>, preferably in consultation with the relevant <u>SG</u>. The new proposals that have been recently submitted or revised, and that will be discussed (or re-considered) at EC48, can be examined online <u>here</u>. The **deadline for submitting new proposals** to the appropriate Subcommittee Chair (see Table <u>here</u>) is **18** July 2016. Recently updated templates for proposals are available <u>here</u>.

Study Groups:

The SGs have a particular responsibility for keeping up-to-date with the emergence of new viruses and proposing new species or higher taxa in their families or orders. They also often initiate creation of new families. The SG Chairs have recently been appointed for a three-year term. They have assembled new

teams whose membership can be accessed <u>here</u>. If you are an SG member, please send any changes to your contact information (e.g. e-mail address) to your SG Chair and <u>Mike Adams</u>.

Extraordinary meeting of the ICTV Executive Committee and Study Groups Chairs:

With support of the WT grant (see above), an extraordinary meeting of the ICTV EC and SG Chairs was held in Hinxton, Cambridge, UK on 1-2 February 2016. It was organized to facilitate the transition to the new on-line publishing model for the ICTV Report and to discuss the ICTV approach to a host of issues caused by the explosive discovery of viruses mostly identified through metagenomics. There were also plenary talks by external experts from related biological disciplines. Some 80 ICTV members, predominantly SG Chairs, attended the meeting, and a summary of the meeting can be found <u>here</u>. Another extraordinary meeting, focusing exclusively on the impact of metagenomics on virus taxonomy, was held in Boston, MA, USA on 9-11 June 2016. Its recommendations will be considered at EC48 in Budapest (see above), and both will be covered in the next ICTV Newsletter.

ICTV publications:

ICTV Ninth Report and updates

Since the release of the <u>ICTV Ninth Report</u>, virus taxonomy has been updated several times (see above). The latest ICTV-authorized taxonomy can be found at <u>http://ictvonline.org/virusTaxonomy.asp</u>, where it can be consulted online or downloaded as the <u>ICTV Master Species List 2015 spreadsheet</u>.

Virology Division News

The VDN section of Archives of Virology is an important open-access vehicle for communicating ICTV news to the virology community and beyond. Please submit reports and articles that deal with the development of virus taxonomy to that section of the journal, specifying <u>Jens Kuhn</u> as Editor. You should indicate clearly whether the article presents changes officially recognized by the ICTV, the substance of taxonomic proposals currently being considered by the ICTV, or informal suggestions for discussion.

History of taxonomic changes

In 2016 we celebrate the **50th anniversary** of the founding of the International Committee for Virus Nomenclature (ICVN), the predecessor of ICTV, during the International Congress of Microbiology in Moscow in July 1986. The reconstructed history of all changes to ICTV-approved taxa (species, genera, subfamilies, families and orders) from publication of the first report in 1971 onwards is <u>available</u>, and has been summarized in a VDN <u>publication</u>.

Funding:

ICTV is very grateful to the Virology Division of <u>the International Union of Microbiological Societies</u>, <u>the</u> <u>Microbiology Society</u>, <u>the American Society of Virology</u>, and the <u>Wellcome Trust</u> for their recent support.

Important links:

Main Web site for ICTV

ICTV virus taxonomy database: current classification and history of each taxon since 2005

Templates for taxonomic proposals

How to write virus names

Problems, comments and questions

As always, comments and suggestions are very welcome. To ensure efficient distribution of this and other information, we again ask you to keep your personal information up-to-date at the ICTV website. In particular, **if you are a National Representative**, please make sure that all the appropriate information is on <u>the website</u>, and also send a note to Business Secretary <u>Mike Adams</u>.

Editor: <u>Alexander E. Gorbalenya</u> Vice-President