

MINUTES OF THE THIRD MEETING OF ICTV
held in MADRID, 12 and 16 September 1975

3/1 Members present 12 September - 32
16 September - 34

3/2. Elections.

Prof. R.E.F. MATTHEWS was elected president (unanimously)
Dr. H.G. PEREIRA, Vice-President (unanimously)

Drs A. EISENSTARK, and A.J. GIBBS members of the Executive Committee
according to the ballot

Dr. A. EISENSTARK : 25
Dr. A.J. GIBBS : 22
Dr. E. KURSTAK : 16

3/3

Proposals for changes in Rules of ICTV (see attachment 4)

Results of voting

Rule 4.: proposal accepted (30 for, 1 against))
Rule 7 : Prof. MELNICK's proposal accepted (18 for, 12 against)
Rule 9 : Dr. GIBBS' proposal withdrawn, EC committee's proposal accepted (19
for, 10 against)
Rule 13 : Dr. HANSEN's proposal rejected unanimously
Rule 14 : Prof. MELNICK's proposal accepted unanimously
Rule 17 : Prof. SUTIC's proposal rejected unanimously
Rules 16,17,18 Executive Committee's proposal accepted unanimously.

3/4 Proposals for viral names (See attachment 3.)

A (1) accepted
A (2) "
A (3) "
A (4) "
A (5) "
A (6) "
A (7) "
A (8) to be referred to the vertebrate Virus subcommittee
A (9) accepted
A (10) "

B - After discussion, all proposals for names by the Bacterial Virus
Sub-Committee were withdrawn to allow it time to propose generic names.
The proposed groupings were accepted, but B (7) Plasmaviridae was
withdrawn.

C (1) accepted
C (2) "

D (1) to D(13) accepted

E (1) accepted

E (2) accepted, but generic name Adenosatellovirus to be referred to the coordination SC, for comment on two alternative names : Adenosatellovirus, (recommended by EC and receiving 13 votes from ICTV) or Adenosociovirus (receiving 3 votes).

3/5 Election of life members of ICTV

Prof. FENNER was elected life member unanimously by acclamation.

ATTACHMENT 3

Proposals for viral names, recommended by the Executive Committee

A - FROM THE VERTEBRATE VIRUS SUBCOMMITTEE

1 - Picornaviridae. (Wildy, pages 75, 55, 56,57)

The following changes are recommended

Transfer "Calicivirus" from "Other genera" to 'Possible genus'. Delete 'Ribophage' as a 'Genus for possible inclusion'

2 - Togaviridae (intervirology, 1974, 3, 193)

Add the following genera :

Rubivirus type species (current name) : rubella virus.

Pestivirus type species (current name) : mucosal disease virus/virus
diarrhoea virus.

3 - Paramyxovirus (Wildy, Page 47)

Upgrade to family Paramyxoviridae, with three genera :

Paramyxovirus type species (current name) : Newcastle disease virus.

Morbillivirus type species (current name) : measles virus

Pneumovirus type species (current name) : respiratory syncytial virus.

4 - Adenovirus (Wildy, Page 36)

Upgrade to family Adenoviridae, with two genera

Mastadenovirus type species (current name) : adenovirus type 1

Aviadenovirus type Species (current name) : CELO Virus

5 - Orthomyxovirus (Wildy page 49)

Upgrade to family Orthomyxoviridae

Genus Influenzavirus

Type species (current name) : Influenza virus

6 - Coronavirus (Wildy, Page 71)

Upgrade to family Coronaviridae

Genus Coronavirus

Type species (current name Avian infectious bronchitis virus

7 - Leukovirus (Wildy, page 46)

Replace with family Retroviridae , which has three subfamilies :

Oncovirinae

Spumavirinae

Lentivirinae

(Oncovirinae = RNA tumor virus group

Spumavirinae = foamy agents ;

Lentivirinae = visna/maedi group)

8 - Herpesvirus (Wildy, page 33)

Upgrade to family Herpesviridae, which probably will have several genera.

Approval now sought only for genus

Type species (current name) : Herpes simplex type 1.

[NOTE: see minute 3/4 above. This was referred to the vertebrate virus subcommittee. From subsequent publications, it appears that the family name *Herpetoviridae* was first adopted and the single genus *Herpesvirus* retained]

9 - Arenavirus (Wildy, page 73)

Upgrade to family : Arenaviridae

Type genus : Arenavirus

Type species (current name) lymphocytic choriomeningitis virus

10 The following new family and genus are proposed

Current name : Bunyamwera Supergroup Viruses

Proposed family Bunyaviridae

Proposed genus Bunyavirus

Type species (current name) : Bunyamwera virus,
Smithburn prototype strain

Main characteristics

Single-stranded RNA which is probably in several segments. The virions are spherical, enveloped particles, 90 - 100 nm in diameter. They develop in the cytoplasm of infected cells; they mature by budding into smooth-surfaced vesicles in, the Golgi region, or nearby. Multiplication is not blocked by inhibitors of DNA transcription. A ribonucleoprotein component composed of long strands 2 - 2,5 nm broad is extractable from disrupted particles. Their envelope contain at least one virus-specified glycopeptide.

B - FROM THE BACTERIAL VIRUS SUBCOMMITTEE

[NOTE: see minute 3/4 above regarding withdrawal of these proposals]

1 T-even phages (Wildy, page 30)

Family name : Myoviridae

Genus (current name) T-even phage group

Type species (current name) Coliphage T4

2 λ -phage (Wildy, page 36)

Family name Styloviridae

Genus (current name) A λ -phage group

Type species (current name) : Coliphage λ

3 Lipid phage PM2 (Wildy Page 40)

Family name Corticoviridae

Genus (current name) Phage PM 2 group

Type species (current name) Phage PM 2

4 ϕ X group (Wildy, page 42)

Family name Microviridae

Genus : Morulavirus

Type species (current name) ϕ X 174

- 5 Filamentous phage (Wildy, page 43)
 Family name Inoviridae
 Genus (current name) fd phage group
 Type species (current name) fd

- 6 - Ribophage group (Wildy, page 66)
 Family name Leviviridae
 Genus (current name) f2 group
 Type species (current name): Coliphage f2

the following new families of bacterial viruses are proposed

- 7 - Family name Plasmaviridae
 Type genus (current name): MV - L2 phage group
 Type species (current name) MV - L2

Main characteristics

Single-stranded DNA. Enveloped slightly pleomorphic virions about 80 nm in diameter. No apparent capsid. Ether and chloroform-sensitive.

Host : Acholeplasma

- 8 Family name Pedoviridae
 Genus (current name) P22/T subgroup
 Type species (current name) P 22

Main characteristics

Double-stranded DNA, molecular weight 25-27 x 10⁶ daltons; tails are shorter in length than the diameter of the head. Isometric capsids about 60-65 nm in diameter, with tails about 17-20 nm long. Host species *Enterobacteriaceae*.

- 9 Family name Cystoviridae
 Genus (current name) Phage φ6 group
 Type species (current name) : phage φ6

Main characteristics

Particles contain double stranded RNA in three pieces ; total m. wt, 13 x 10⁶ daltons. Capsids have cubic symmetry and a Lipoprotein shell. Virion contains 25 % lipid and 10 % RNA. Virions adsorb to sides of pili of *Pseudomonas* spp.

C - FROM THE INVERTEBRATE VIRUS SUBCOMMITTEE

- 1 - Baculovirus (Wildy, Page 32)
 Upgrade to family: Baculoviridae
 Genus : Baculovirus
 Type species (current name) Bombyx mori nuclear polyhedrosis virus

2 - Iridovirus (Wildy, page 31)
Upgrade to family : Iridoviridae
Genus : Iridovirus
Type species (current name) *Tipula* iridescent virus

D - FROM THE PLANT VIRUS SUBCOMMITTEE

1 - Tobacco mosaic virus group (Wildy, page 60)
Proposed group name : Tobamovirus
Type member (current name) : tobacco mosaic virus

2 - Potato virus X group (Wildy, page 70)
Proposed group name : Potexvirus
Type member (current name) : Potato virus X

3 - Carnation latent virus group (Wildy, page 69)
Proposed group name : Carlavirus
Type member (current name) : Carnation latent virus

4 - Potato virus Y group (Wildy, page 68)
Proposed group name : Potyvirus
Type member (current name) : Potato virus Y

5 - Turnip yellow mosaic virus group (Wildy, page 61)
Proposed group-name : Tymovirus
Type member (current name) : Turnip yellow mosaic virus (Cambridge isolate)

6 - Cowpea mosaic virus group (Wildy, page 48)
Proposed group name : Comovirus
Type member (current name) : Cowpea mosaic virus (SB isolate)

7 - Cauliflower mosaic virus group (Wildy, page 37)
Proposed group name : Caulimovirus
Type member (current name) : Cauliflower mosaic virus (Cabbage S isolate)

8 - Tobacco rattle virus group (Wildy, page 58)
Proposed group name : Tobravirus
Type member (current name) : Tobacco rattle virus (PRN isolate)

9 - Tomato bushy stunt virus group (Wildy, page 62)
Proposed group name: Tombusvirus
Type member (current name) : Tomato bushy stunt virus (syn. pelargonium leaf curl virus).

the following new groups and names are proposed

10 - Beet yellows virus group
Proposed group name : Closterovirus
Type member (current name) : Beet yellows virus

Main characteristics

Very flexuous rods with helical symmetry of pitch 3.7 nm and 5-6% RNA. Lengths vary from 1250 nm to about 2000 nm but may be as short as 600 nm for some members. Thermal inactivation point : 45-55⁰C ; longevity in sap : a few days ; concentration in sap : 40-100 mg/1 ; symptoms are mainly yellowing with necrotic spots. Rods often aggregate in cross banded masses in phloem cells. Moderately wide host range. Some have aphid vectors with semipersistent retention, mechanically transmissible with difficulty. Serological relationship between members not known.

11 - Barley stripe mosaic-virus group

Proposed group name : Hordeivirus

Type member (current name) : Barley stripe mosaic virus

Main characteristics

Particles are straight, tubular, about 20-25 nm in diameter and ranging from 110-160 nm in length, helically symmetrical with a pitch of about 2.5 nm. RNA is single-stranded, about 4 % of particle weight, and consists of 2-4 components with molecular weights ranging from about 1 x 10⁶ to 1.5 x 10⁶ daltons. At least 2-3 RNA components are required for infectivity. Thermal inactivation point : 63-70⁰ C ; longevity in sap : a few days or weeks ; host range somewhat narrow, symptoms chlorotic or necrotic; some members seed and pollen borne, mechanically transmissible, no known vectors; distant serological relationship between members.

12 - Barley yellow dwarf virus group

Proposed group name Luteovirus

Type member (current name) : Barley yellow dwarf virus

Main characteristics

Isometric particles of 115-118 S and about 25 nm in diameter containing single-stranded RNA of approximately 2.0 x 10⁶ daltons. Thermal inactivation point between 65-70⁰ C. Virus confined to phloem tissues of plant hosts with dwarfing, yellowing and reddening of plants. Concentration in sap usually less than 100 µg/1. Not transmitted mechanically. Persistent retention in aphid vectors with virus strains having a high degree of vector specificity. Some members are serologically related.

13 - Isometric labile ringspot virus group

Proposed group name : Ilarvirus

Type member (current name) : Tobacco streak virus

Main characteristics

At least three components, all quasi isometric in the electron microscope. Each component has a different diameter, with a size range of 26 to 35 nm and sedimentation coefficients of 80 to 110 S. Particles have the same density (1.356) and approximately 16% RNA. Four RNA components occur in different virions ; divided genomes. Thermal inactivation point : 50⁰C to 60⁰C ; longevity in vitro : from 2 to 10 days ; wide host range; some are transmitted by pollen to flower bearing plants, mechanically transmissible; some serological relationships between members.

E - FROM THE COORDINATION SUBCOMMITTEE

- 1 **Rhabdovirus** (Wildy, page 51)
- | | |
|---------------------------------|----------------------------|
| Upgrade to family | Rhabdoviridae |
| Genera Vesiculovirus | |
| Type species (current name) | Vesicular stomatitis virus |
| | |
| <u>Lyssavirus</u> | |
| Type species (current name) | Rabies virus |
- 2 **Parvovirus** (Wildy, page 41)
- | | |
|--|-------------------------------------|
| Upgrade to family | Parvoviridae |
| genera Parvovirus | |
| Type species (current name) | latent rat virus (Kilham) |
| | |
| <u>Adenosatellovirus</u> | |
| Type species (current name) | Adeno-associated virus (AAV) type 1 |
| [NOTE: see minute 3/4 above regarding referral of the proposed name
Adenosatellovirus back to the subcommittee] | |
| | |
| <u>Densovirus</u> | |
| Type species (current name) | Densonucleosis virus of |
| <i>Galleriae</i> | |

Attachment 4: PROPOSALS FOR CHANGES TO THE RULES

Rule 4 - An effort will be made towards a latinized binomial nomenclature.

Proposal from the Executive Committee

Rule 7 - New sigla shall not be introduced.

Two proposals have been received :

1) Professor MELNICK's proposal : delete binomial.

'Sigla may be accepted as names of viruses or virus groups, provided that they are meaningful to workers in the fields and are recommended by international virus Study Groups'.

2) Executive Committee proposal, : "No sigla proposed after 1971 shall be accepted".

Rule 9 - No nonsense names shall be used

Three proposals have been received :

1) Executive Committee proposal : "Names should have international meaning"

2) Professor MELNICK's proposal: "If the amendment concerning Rule 7 is accepted, Rule 9 should be deleted".

3) Dr. GIBBS's proposal (withdrawn at meeting)

"An effort will be made towards a sensible nomenclature that will be of use to most virologists"

Rule 13 - The ending of the name of a viral genus is *.virus.

One proposal has been received from Dr. H.P. HANSEN

"The ending of the name of a viral genus is a defined name of its particle type ; when particles are not defined the ending '...virus' is a general substitute. For 'naked' viruses ('viroids') the ending is '...nudum'".

Rule 14 - To avoid changing accepted usage, numbers, letters or combinations may be accepted for names of species.

One proposal has been received from Professor MELFICK

"Numbers, letters, or combinations thereof may be accepted in constructing the names of species".

Rule 16 Should families be required, a specific termination to the name of the family will be recommended.

Rule 17 Any family name will end in "idea".

One proposal has been received from Professor D. SUTIC

"Any family name will end in "...aceae"

Rule 18 - A family is a group of genera with common characters.
One proposal from the Executive Committee

"Delete Rule 16 and replace Rules 17 and 18 by new Rule 16

A family is a group of genera with common characters, and the ending of the name of a viral family is " ... viridae".