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

3/1 Members present 12 September - 321 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 GIBBS' proposal withdrawn, EC committee's proposal accepted (19 for, 10 against)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 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- B After discussion, all proposals for names by the Bacterial Virus Sub-Committee were withdrawn to allow it time to propose generic names.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) <u>Plasmaviridae</u> was withdrawn.
- C(1) accepted
- C(2)"

D(1) to D(13) accepted

- E(1) accepted
- E (2) accepted, but generic name <u>Adenosatellovirus</u> to be referred to the coordination SC, for comment on two alternative names: <u>Adenosatellovirus</u>, (recommended by EC and receiving 13 votes from ICTV) or <u>Adenosocio</u>virus (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 - <u>Picornaviridae</u>. (Wildy, pages 75, 55, 56,57)

The following changes are recommended

Transfer <u>"Calicivirus"</u> 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 <u>Paramyxoviridae</u>, with three genera:

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

Morbillivirus type species (current name) : meas1es 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 - <u>Leukovirus</u> (Wildy, page 46)

Replace with family Retroviridae, which has three subfamilies:

Oncovirinae Spumavirinae Lentivirinae

(Oncovirinae = RNA tumor virus group

<u>Spumavirinae</u> = foamy agents;

Lentivirinae = visna/maedi group)

8 - <u>Herpesvirus</u> (Wildy, page 33)

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

Approval now sought only for genus

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

[This is unclear. 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 : <u>Arenaviridae</u>
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

1 <u>T-even phages</u> (Wildy, page 30)

> Family name: Myoviridae

Genus (current name) T-even phage group Coliphage T4 Type species (current name)

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

 $\phi X \text{ group}$ (Wildy, page 42)

Family name Microviridae

Genus: Morulavirus φX 174 Type species (current name)

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, 13×10^6 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 - <u>Baculovirus</u> (Wildy, Page 32)

Upgrade to family: Baculoviridae Genus: Baculovirus

Type species (current name) <u>Bombyx</u> mori nuclear polyhedroxis virus

2 - <u>Iridovirus</u> (Wildy, page 31) Upgrade to family: <u>Iridoviridae</u> Genus: <u>Iridovirus</u>

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 - <u>Tomato</u> bushy <u>stunt virus</u> 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 _qroup

Proposed group name: Clostrovirus

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 : $45-55^{\circ}$ C; 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 10 to 1.5 x 10^6 daltons. At least 2-3 RNA components are required for infectivity. Thermal inactivation point : $63-70^\circ$ 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 2.0×10^6 daltons. Thermal inactivation point between 65-70° C. Virus confined to phloem tissues of plant hosts with dwarfing, yellowing and reddening of plants. Concentration in sap usually less than 100 μ g/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 - <u>Isometric labile ringspot virus group</u>

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: 50°C to 60°C; 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.

FROM THE COORDINATION SUBCOMMITTEE

1 Rhabdovirus (Wildy, page 51)

Upgrade to family Rhabdoviridae Genera Vesiculovirus

Type species (current name) Vesicular stomatitis virus

Type species (current name)

Lysssavirus
Rabies virus

2 Parvovirus (Wildy, page 41)

Upgrade to family Parvoviridae genera Parvovirus

Type species (current name) latent rat virus (Kilham)

Adenosatellovirus

Type species (current name) Adeno-associated virus (AAV) type 1

Densovirus

Type species (current name) Densonucleosis virus of <u>Galleriae</u>

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 " \dots viridae".