

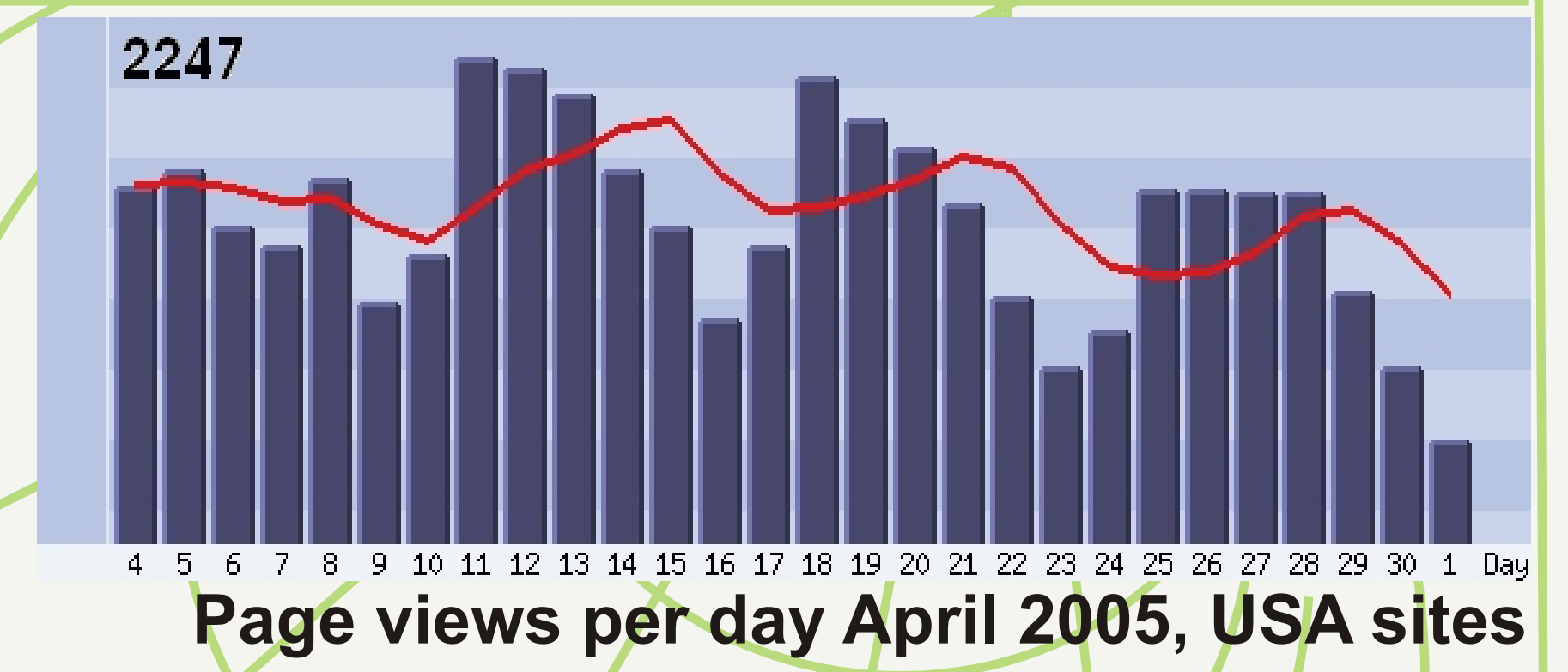
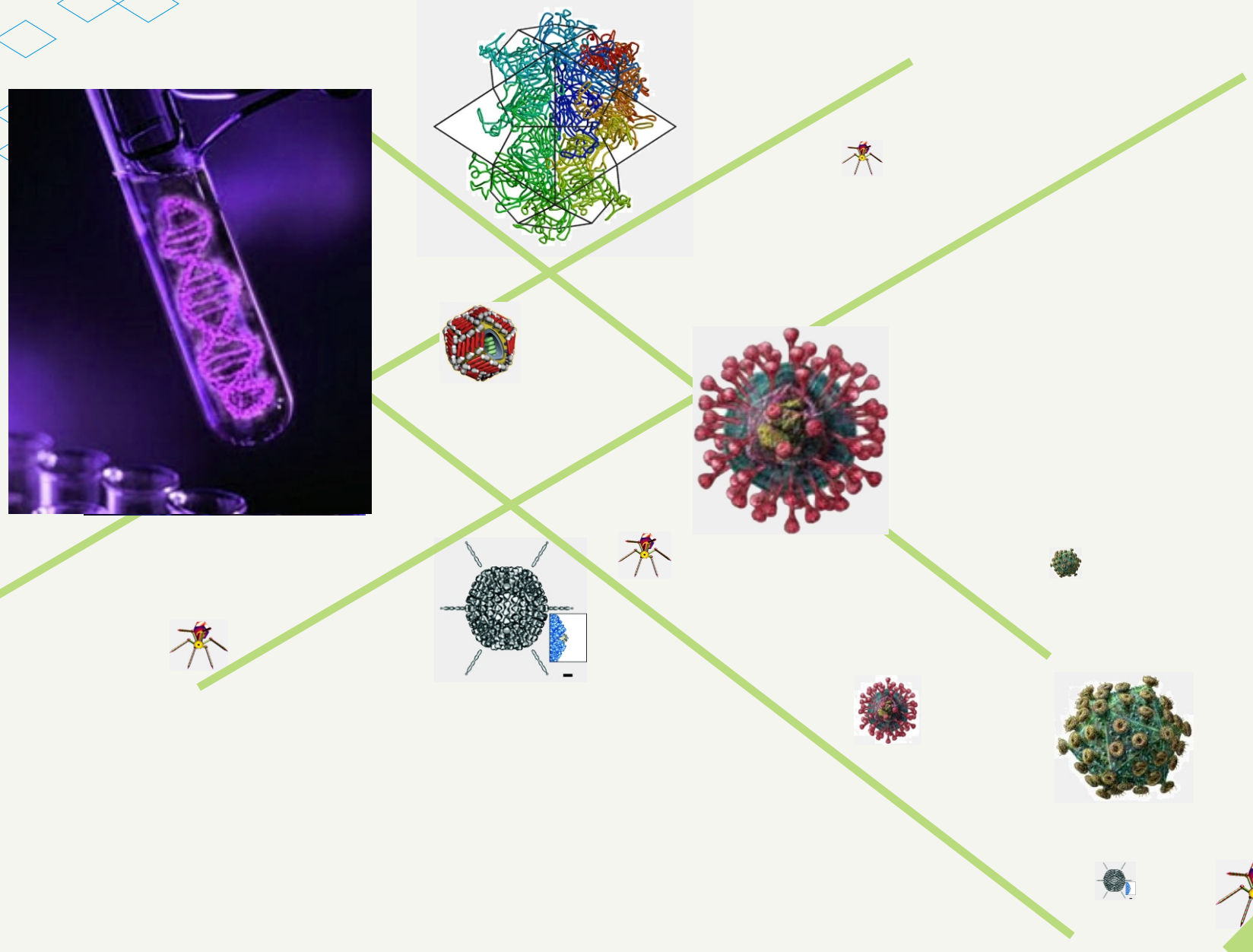


# Since 1990: ICTVdB - The Universal Virus Database<sup>®</sup> of the International Committee on Taxonomy of Viruses



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Home site: <http://phene.cpmc.columbia.edu/>  
USA mirror: <http://www.ncbi.nlm.nih.gov/ICTVdb/>  
European mirror: <http://www.ictvdb.rothamsted.ac.uk/>  
China mirror: <http://ictvdb.mirror.ac.cn/>

## ICTVdB in DELTA format

Assigns unique decimal code identity for all virus taxa clearly indicating taxonomic status and relationships:

type species of "T7-like Viruses"  
02.054.0.01.001. *Enterobacteria phage T7*

Uses list of virus properties to generate descriptions of all taxa  
40,000 item code book to define 2,700 virus characteristics transcribed into natural language descriptions

## DELTA Database

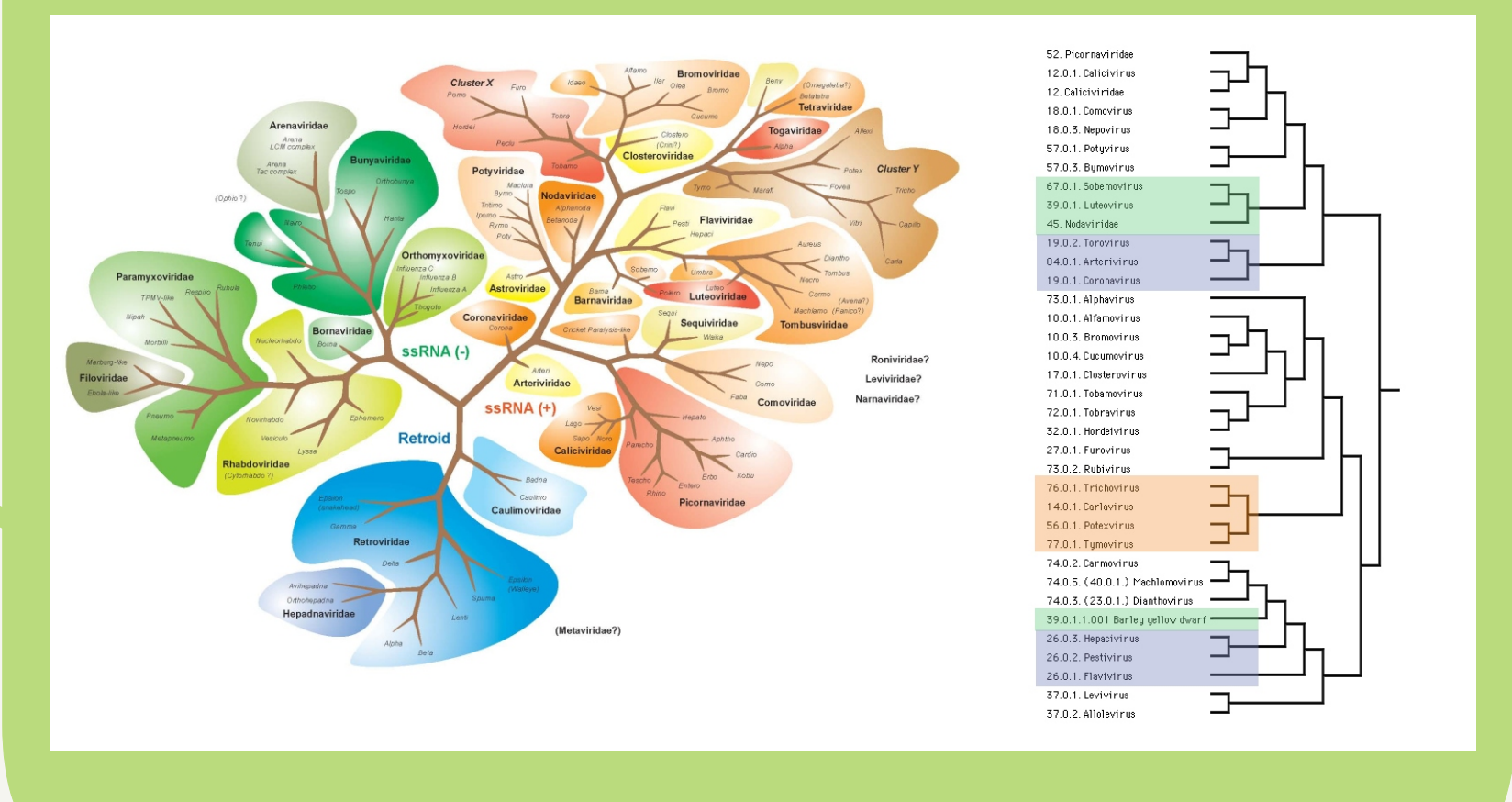
World standard for data exchange in taxonomy, DELTA (DEscription Language for TAXonomy) is available at <http://delta-intkey.com/> to handle fully annotated biological information of all sorts, with data entry and handling facilitated by network of dependencies  
(Büchen-Osmond, *The Universal Virus Database ICTVdB*, Computing in Science and Engineering (2003)5, 16-25).

## Natural Language Translations

Automated translation of annotated data in ICTVdB available in RTF (camera ready) and HTML (web output)

## Phylogenetic Programs

Tools for generation phylogenetic relationships from the DELTA data matrix of ICTVdB are readily available.



## Keys for Virus Identification

The Intkey tool is an intelligent search engine that produces similarity, dissimilarity or summary matrices on the fly for identifying and exploring relationships among virus taxa

## ICTVdB Tutorial Introduction for first time users

ICTVdB Web Outputs

PC Tools in DELTA

## The Index of Viruses in ICTVdB

catalogues ICTV approved virus taxonomy and nomenclature to species level plus additional data on isolates

Linked to ICTVdB descriptions and GenBank

## Virus descriptions in ICTVdB

describes all virus taxa down to type species, including about 1100 plant viruses and some 2000 isolates of human and animal viruses.

Linked to ICTVdB descriptions and GenBank

## ICTVdB Picture Gallery

presents classic EM images of virus species, reconstructions and diagrams

Linked to copyright owners and ICTVdB descriptions including hosts and symptoms

## EntVir: online data entry

user-friendly access to ICTVdB code book to deliver virus data and assemble descriptions

Data peer reviewed before web publication  
152 SARS isolates submitted online Jan 2005

## Interactive data retrieval

access to and interrogation of most recent ICTVdB data for virus identification via downloadable reader

Linked to ICTVdB descriptions and images

## To and from sequence databases

Linkages to NCBI, UniProt from ICTVdB via genome, sequence accession and TaxID numbers  
genome NC 001604, sequence V01146 and TaxID 10760  
Linkages from NCBI, UniProt to ICTVdB via decimal code  
02.054.0.01.001. *Enterobacteria phage T7*

## To and from reference databases

Linkages to PubMed and NLM from ICTVdB

### Hard copy references based on ICTVdB

Tidona C, Darai G and Büchen-Osmond C (Eds) (2002) *Springer Index of Viruses*, an online virus database, Springer Verlag.  
Büchen-Osmond C. (2003). *Manual of Clinical Microbiology*, 8th ed, Vol 2, p. 1217-1226, ASM Press, Washington DC.  
Ecker et al (2005) *Microbial Rosetta Stone Database*, BMC Microbiology <http://www.biomedcentral.com/1471-2180/5/19>