

RNA viruses

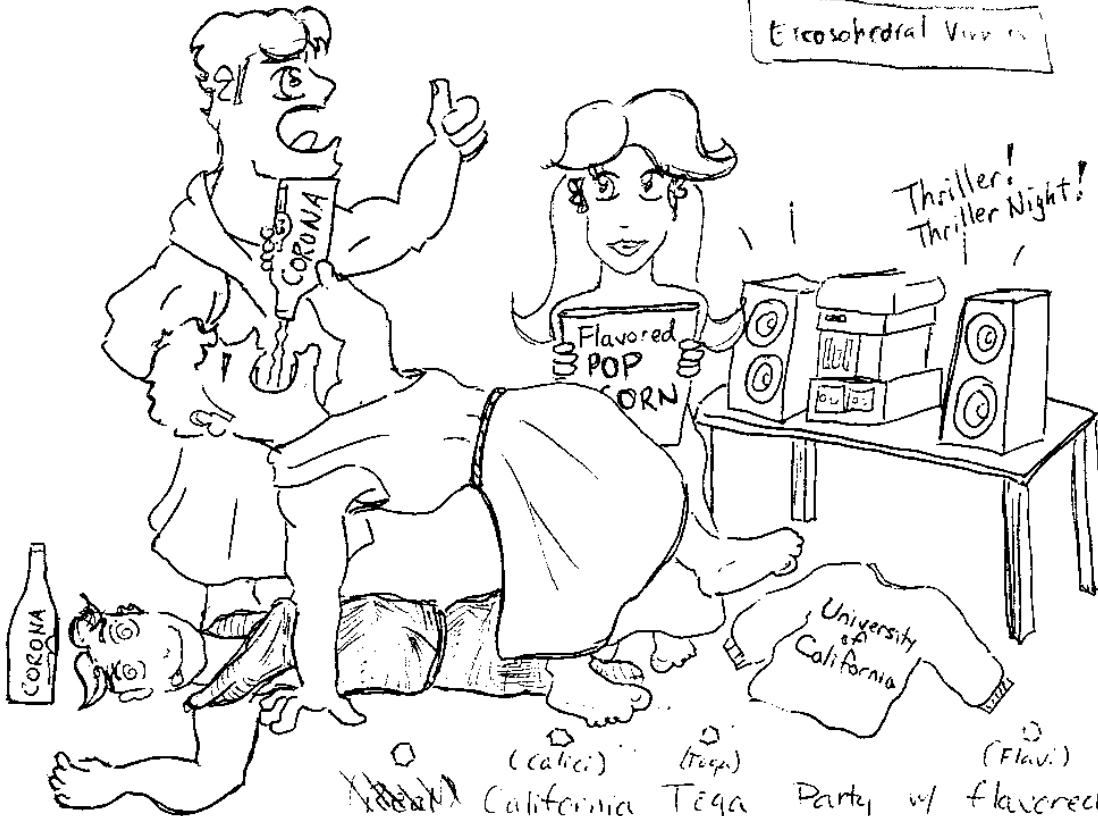
~~2017-20~~ ~~2020-2022~~



Naked RNA virus
Reo, Calici, Picorna → no butter
Reo Cali Popcorn

Reo
Real California Toga
Party w/ Flavored Popcorn
Flav
Picorna

Enicosohedral Virus



California Toga Party w/ flavored popcorn,
(Calici) (Reo) (Flav.) (Picorna)

Reo 12ds

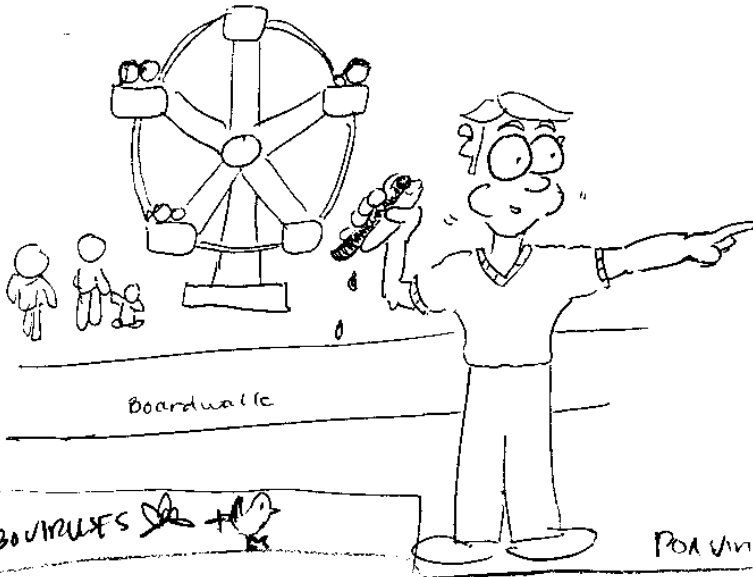
Reo cinema and retro music.
(Reo) (Reo)

(+) Positive SS RNA
(except Reo)

Calici

Hep
 * Eating a hotdog at the California Boardwalk makes you sick.
 (Norwalk) agent

most common cause of adult gastroenteritis



associated w/ Hep E
 E-treaty



ARBOVIRUSES

POA virus: small pox: orth

RETROVIRIDAE: HIV + 2

dsRNA

E orbivirus
 E-bta virus

* cause of infant gastroent.

OROVIRUS
 70 - hemorrhagic conjunct
 71 - encephalitis

Calici

Togav

Flavi

⊕ ssRNA

Rhabdoviridae

Rabies - not systemic. Goes up NS, multiplies, comes back down. long incubation

[Redacted]

[Redacted]

Buny

"Follow (Flu)"

[Redacted]

HDV

- unclassified. Defective virus - depends on HBV for genetic info.

Arenaviridae

Lasovirus
 Lassie



Aren in California

Orthomyxo

Influenza. "Flumist" is vaccine
 Qseltamir → Oral

"Hemagglutinin"
 "Neuraminidase"

Paramyxo

Paramflu, - common cold
 Mumps - "I got the bumps from the mumps!"
 Measles - Koplik's spots
 SSPE - slow infection
 RCV → most infant resp pathogen in kids

LCM: Lymphocyte
 Choriomeningitis ⊖ ssRNA virus

TOGA

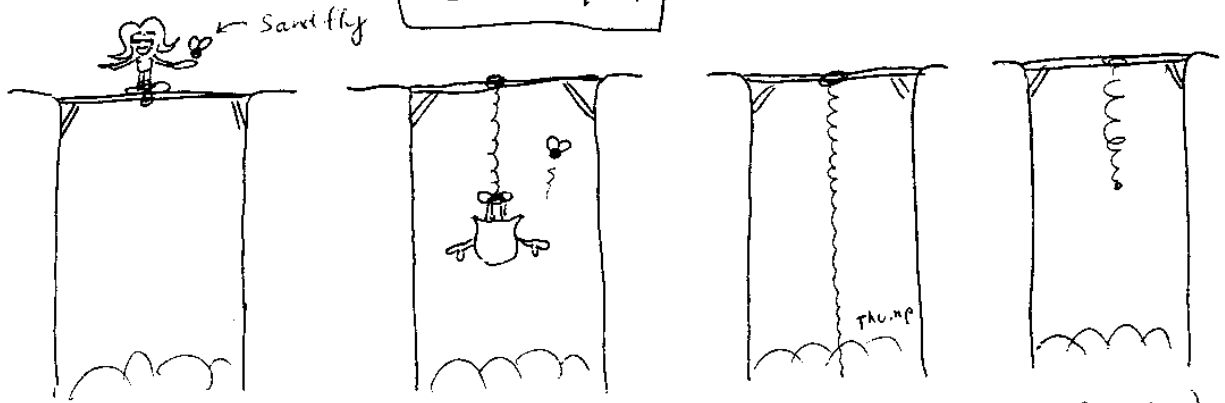


Toga Viridae

Rub = Rubella - congenital, respiratory catarracts
 Venezuelan equine encephalomyelitis VEE
 Eastern equine encephalomyelitis WEE
 Western equine encephalomyelitis EEE

} most severe arthropod borne encephalitis

BUNYA



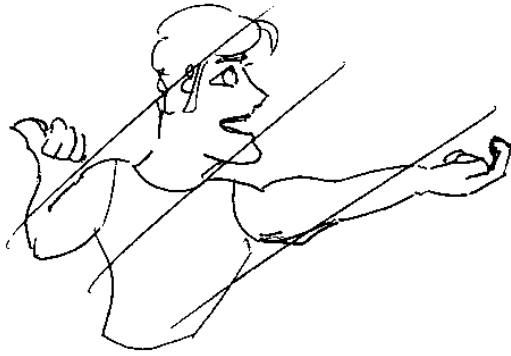
(Hanta) Hanna went Bunje jumping across the California
 (Bunya) (Lacross) (CALIF. RIFT VALLEY)

Jamestown Canyon. Fell, hit her head and now she's Sin Nombre (Hanta)

* * most common incidence of insect born virus.

Flavi viridae

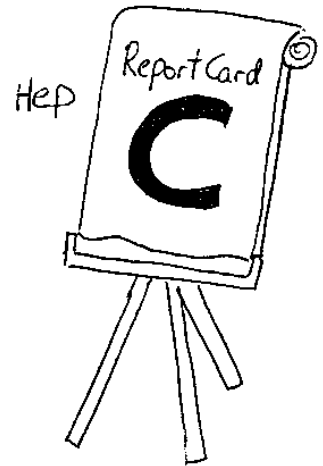
Latin for "yellow"



Japanese
Powasson Kick!
(kick)



(Dengue)
"Dang!" I
messed up.



- Yellow fever
- Japanese Encephalitis
- Dengue
- Hep C

* Internationally
Notifiable

Mycobacteria

Typical Mycobacteria commonly cause 2 conditions \rightarrow Leprosy \rightarrow TB. It is so hard to kill this organism because it hides in macrophages. During staining, it is not found to be $g(+)$ or $g(-)$ but rather acid fast, which means it contains a special lipid called mycosides consisting of cord factor, wax d, sulfatides and mycolic acid. Among these, cord factor is considered virulence and wax d is adjuvant no human to. Atypical mycobacteria are special because $\textcircled{1}$ resistant to typical drugs, $\textcircled{2}$ grow fast, $\textcircled{3}$ human transmission. Examples of atypical mycobacteria is Intact MAC, associated with AIDS.

Actinomycetes and Nocardia are bacteria, found in soil. Actinomycetes gram +. Actinomycetes are the most abundant organism in soil, can be found in the human bite, and are associated w/ sulfur granules under the microscope. Nocardia is often confused w/ TB. It is also acid fast. They both stain.

Spirochetes

Three important types of spirochetes are Syphilis (Treponema pallidum), Borrelia, and Leptospira. Let's not talk about syphilis. Borrelia is much more interesting. Four different types of Borrelia cause (Epidemic/Endemic) Relapsing Fever, "ANUG" or Trench mouth, and Lyme disease. Lyme disease may often lead to arthritis; it is transmitted by tick (Ixodes). Finally, Leptospirosis causes Weils Disease, leading to infectious jaundice.

Mycoplasma

Mycoplasma has no cell wall - hence the "plasma" reminds you that it hangs freely. It is the smallest bacteria and has a cute "fried egg" appearance. It causes 3 imp't problems: $\textcircled{1}$ pneumonia (precipitate); $\textcircled{2}$ PID (hormones); arthritis + N.G.U. + spontaneous abortion (Ureaplasma).

Gram (-) Rods

Bordetella Pertussis

- Has 4 toxins
- 3 stages
- ① catarrh (infectious)
 - ② paroxysm
 - ③ convalescence (not infectious)
- ① FHA (filamentous hemaggl.) attach to epithelium
 - ② TCA (tracheal cytotoxin) fragments peptidog.
 - ③ DNT (dermonecrotic) produce NO to kill cells
 - ④ PT (exotoxin) systemic

"Herd immunity"

Haemophilus Influenza

1. H. I A - pertussis + meningitis
2. H. I B - meningitis
3. H. aegyptius - Pink eye
4. H. ducreyi - VD → chancroid
antigenic to AIDS

Legionella pneumophila

- * hides in ^{beats} cells, found in contaminated H₂O. Can also cause Pontiac Fever (self-limiting).

Bruceella

- lives in monocytes. "Bruce" the butcher at slaughterhouses. Undulant Fever.

Francisella Tularemia

- also facultative intracellular parasite, like Legionella, mycobac, Francisella + Yersinia
- most varied reservoirs.

Yersinia pestis

- internationally notifiable.
- Bubonic Plague.
- hides out in _____

Bartonella

- B. quintana = Trench Fever
- B. henselae = Cat Scratch # cause of benign chronic adenopathy in kids.
- * NOT a zoonosis.

Dr. Olgesby's famed "mosts"

* Most common . . .

- 1. infection from animal bite *Pasteurella*
 - 2. Cause of benign chronic adenopathy in kids *Pop. mollera*
 - 3. Cause of bronchitis? Pneumonia in kids *Mycoplasma Pneumoniae*
- Most frequently reported vector-borne diseases (Lyme Disease) *Borella Spirochete*
- Most varied reservoirs? *Francisella Tularensis*
- Most common STD? *Chlamydiae*

Most common cause of:

- infant gastroenteritis *Kotavirus*
- adult gastroenteritis *Norwalk*
- respiratory tract infections in kids *RSV*
- most severe arthropod-borne encephalitis *Togaviruses Family (JEV, etc.)*
- most common incidence of insect born virus *Bunyya*

DNA viruses

• DNA assoc w/ tumors:
HBV, HPV, HHV8, EBV

* Naked for a *PAP* smear
POVA *dino* *ova*

* Ask Pap how HE got Herpes. = Icosahedral DNA.
dino *ova* *Herpes*

POX is the only large brick, complete env.

- HERPES**
- ① HSV I
 - ② HSV II
 - ③ Varicella/Zoster
 - ④ Epstein Barr - none
 - ⑤ CMV
 - ⑥ HHV-6 - Exanthem Subitum
 - ⑦ HHV-8 - "Kaposi's"

smallest. - *Chlamydia*

8-19. That blasted naked pervert! Slap him! (Slapped cheek)
(lives in epithelium) *Erythema Infectiosum*

POVA - HPV
- Polyoma virus (PML) ≠ slow infection.

PADNA Hepatitis HBs Ag = vaccine

→ molluscum contagiosum