State of the Science

Changes in Nomenclature

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Disclaimers

- I acknowledge that the lists contained herein are incomplete – there's not enough time to discuss everything
- Not all the nomenclature updates I've listed are recent; however, many of the older ones are not widely known/adopted
- We're going to focus on nomenclature changes to previously known microorganisms and viruses – we can talk about new taxa another time

Outline

- Bacterial nomenclature updates
- Fungal nomenclature updates
- Helminth and protozoan nomenclature updates
- Viral nomenclature updates

Introduction

- *Why do microbial nomenclature changes occur?*
  - Modern microbial taxonomy, comprising identification, classification, and nomenclature, relies heavily on information gleaned from genome sequence data
  - Evolutionary relationships between organisms / viruses are most useful and informative for classification
  - Internationally recognized and scientifically accurate names based on the newest/best data are subsequently assigned

Bacterial nomenclature updates

Organism type and former name	Revised name	Other information	Reference(s)
Gram-positive bacilli			
Turicella otitidis	*Corynebacterium otitidis* comb. nov.	Initial description of *T. otitidis* isolated from the ear of a patient with otitis media in reference 74; based on phylogenomic and comparative genomic analyses, *Turicella* is reclassified in the genus *Corynebacterium*	75
Streptomyces griseoplanus	*Streptacidiphilus griseoplanus* comb. nov.	Initial description provided in reference 143; in addition, optimal growth is at 28°C	109
Gram-negative bacilli			
Acinetobacter dijkshoorniae	*Acinetobacter lactucae*	Initial description of *A. dijkshoorniae* taxonomic status in reference 144; clinical significance and features summarized in reference 3	145
Bisgaard taxon 5	*Caviibacterium pharyngocola* gen. nov., sp. nov.	Initial description of Bisgaard taxon 5 in reference 146; new taxonomy accommodates all isolates in taxon 5; reference 147 describes clinical human infection derived from a guinea pig bite wound	147
Shewanella haliotis	*Shewanella algae*	Initial description of *S. haliotis* in reference 148; clinical significance in hepatobiliary disease and soft tissue infection summarized in references 149–151	152
Pantoea calida	*Mixta calida* comb. nov.	Initial description of *P. calida* in reference 153; organism often associated with infant formula production; clinical significance in postsurgical meningitis, bacteremia, and antimicrobial resistance reservoirs summarized in references 154–156	80
Pantoea intestinalis	*Mixta intestinalis* comb. nov.	Initial description of *P. intestinalis* in reference 157; originally isolated from feces of healthy human subject	80

Munson and Carroll. 2021. *J Clin Microbiol.* doi: 10.1128/JCM.01309-20.

Bacterial nomenclature updates

Borrelia afzelii	*Borreliella afzelii* comb. nov.	Initial description of *B. afzelii* in reference 158	76[a]
Borrelia americana	*Borreliella americana* comb. nov.	Initial description of *B. americana* in reference 159	76[a]
Borrelia valaisiana	*Borreliella valaisiana* comb. nov.	Initial description of *B. valaisiana* in reference 160; recovery from human clinical specimen documented in reference 161	76[a]
Photorhabdus asymbiotica subsp. *australis*	*Photorhabdus australis* sp. nov.	Initial description of *P. asymbiotica* subsp. *australis* in reference 162; description of clinical isolates in references 162 and 163	81
Photorhabdus asymbiotica subsp. *asymbiotica*	*Photorhabdus asymbiotica*	Initial description of *P. asymbiotica* subsp. *asymbiotica* in reference 163; description of clinical significance in references 164 and 165	81
Photorhabdus luminescens subsp. *luminescens*	*Photorhabdus luminescens*	*P. luminescens* subsp. *luminescens* initially classified as *Xenorhabdus* spp. (166); clinically significant human infections, often found in Australia and United States, have been reviewed (167–170)	81
Methylobacterium extorquens	*Methylorubrum extorquens* comb. nov.	*M. extorquens* initially classified as *Protomonas extorquens* (171) and known by a number of synonyms (172); report of catheter-related infection in reference 173	84
Methylobacterium aminovorans	*Methylorubrum aminovorans* comb. nov.	Initial description of *M. aminovorans* in reference 174; case report of hospital-acquired bacteremia (catheter related) in reference 175	84
Methylobacterium podarium	*Methylorubrum podarium* comb. nov.	Initial description of *M. podarium* in reference 176; clinical relevance discussed in references 176 and 177	84

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Bacterial nomenclature updates

Organism type and former name	Revised name	Other information	Reference(s)
Methylobacterium rhodesianum	*Methylorubrum rhodesianum* comb. nov.	Initial description of *M. rhodesianum* in reference 178; *Methylobacterium lusitanum* is synonym designation (179); case report of hospital-acquired bacteremia (catheter related) in reference 175	84
Methylobacterium thiocyanatum	*Methylorubrum thiocyanatum* comb. nov.	Initial description of *M. thiocyanatum* in reference 180; cases of bacteremia discussed in references 175 and 181	84
Methylobacterium zatmanii	*Methylorubrum zatmanii* comb. nov.	Initial description of *M. zatmanii* in reference 178; case report of septicemia in reference 182	84
Enterobacter cloacae complex Hoffmann cluster III	*Enterobacter hormaechei* subsp. *hoffmannii* subsp. nov.	Initial description of isolate in reference 183; taxonomic designation made on basis of genome computational analysis	32[b]
Enterobacter cloacae complex Hoffmann cluster IV	*Enterobacter roggenkampii* sp. nov.	Initial description of isolate in reference 183; taxonomic designation made on basis of genome computational analysis	32[b]
Mycoplasma arginini	*Mycoplasmopsis arginini* comb. nov.	Initial description of *M. arginini* in reference 184; report of detection from human specimens in reference 185	85[b]
Mycoplasma arthritidis	*Metamycoplasma arthritidis* comb. nov.	Initial description of *M. arthritidis* in reference 186; reports of detection from human specimens in references 187 and 188	85[b]
Mycoplasma buccale	*Metamycoplasma buccale* comb. nov.	Initial description of *M. buccale* in reference 189	85[b]
Mycoplasma canis	*Mycoplasmopsis canis* comb. nov.	Initial description of *M. canis* in reference 190; report of isolation from human specimens in reference 191	85[b]
Mycoplasma caviae	*Mycoplasmopsis caviae* comb. nov.	Initial description of *M. caviae* in reference 192; report of detection from human specimen in reference 193	85[b]
Mycoplasma edwardii	*Mycoplasmopsis edwardii* comb. nov.	Initial description of *M. edwardii* in reference 194; case report of canine bite-induced puncture of peritoneal dialysis tubing in reference 195	85[b]

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Bacterial nomenclature updates

Mycoplasma faucium	*Metamycoplasma faucium* comb. nov.	Initial description of *M. faucium* in reference 189	85[b]
Mycoplasma fermentans	*Mycoplasmopsis fermentans* comb. nov.	Initial description of *M. fermentans* in reference 190	85[b]
Mycoplasma genitalium	*Mycoplasmoides genitalium* comb. nov.	Initial description of *M. genitalium* in reference 196	85[b]
Mycoplasma hominis	*Metamycoplasma hominis* comb. nov.	Initial description of *M. hominis* in reference 197	85[b]
Mycoplasma lipophilum	*Mycoplasmopsis lipophila* comb. nov.	Initial description of *M. lipophilum* in reference 198	85[b]
Mycoplasma maculosum	*Mycoplasmopsis maculosa* comb. nov.	Initial description of *M. maculosum* in reference 190; case report of meningitis in reference 199	85[b]
Mycoplasma orale	*Metamycoplasma orale* comb. nov.	Initial description of *M. orale* in reference 200	85[b]
Mycoplasma penetrans	*Malacoplasma penetrans* comb. nov.	Initial description of *M. penetrans* in reference 201	85[b]
Mycoplasma pirum	*Mycoplasmoides pirum* comb. nov.	Initial description of *M. pirum* in reference 202	85[b]
Mycoplasma pneumoniae	*Mycoplasmoides pneumoniae* comb. nov.	Initial description of *M. pneumoniae* in reference 203	85[b]
Mycoplasma primatum	*Mycoplasmopsis primatum* comb. nov.	Initial description of *M. primatum* in reference 204	85[b]
Mycoplasma pulmonis	*Mycoplasmopsis pulmonis* comb. nov.	Initial description of *M. pulmonis* in reference 186; report of detection in humans in reference 205	85[b]
Mycoplasma salivarium	*Metamycoplasma salivarium* comb. nov.	Initial description of *M. salivarium* in reference 190	85[b]

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Bacterial nomenclature updates

Organism type and former name	Revised name	Other information	Reference(s)
Burkholderia endofungorum	*Mycetohabitans endofungorum* comb. nov.	Initial description of *B. endofungorum* in reference 206; characterization of blood isolate forwarded to the CDC in reference 207	208[b]
Burkholderia rhizoxinica	*Mycetohabitans rhizoxinica* comb. nov.	Initial description of *B. rhizoxinica* in reference 206; characterization of blood and wound isolates forwarded to the CDC in reference 207	208[b]
Enterobacter muelleri	*Enterobacter asburiae*	*E. muelleri*, originally described in reference 209, is a later heterotypic synonym of *E. asburiae*	32[c]
Mycoplasma felis	*Mycoplasmopsis felis* comb. nov.	Initial description of *M. felis* in reference 210; reports of detection in humans in references 211, 212	85[d]
Acinetobacter genospecies 8	*Acinetobacter pseudolwoffii* sp. nov.	Initial description of 12 *Acinetobacter* genospecies in reference 213; characterization of outpatient conjunctival and inpatient vaginal isolates in reference 214	215[e]
Elizabethkingia genomospecies 3	*Elizabethkingia bruuniana* sp. nov.	Five distinct groups of *Elizabethkingia* strains were initially characterized by DNA-DNA hybridization (216); clinical significance reviewed in reference 78	54[e]
Elizabethkingia genomospecies 4	*Elizabethkingia ursingii* sp. nov.	Five distinct groups of *Elizabethkingia* strains were initially characterized by DNA-DNA hybridization (216); clinical significance reviewed in reference 79	54[e]
Klebsiella pneumoniae phylogenetic group 5	*Klebsiella variicola* subsp. *tropica* subsp. nov.	*K. pneumoniae* phylogenetic group 5 initially described in reference 83; isolates described in reference 44 were derived from human feces (Madagascar)	44[f]
	Klebsiella variicola subsp. *variicola* subsp. nov.	By code, second subspecies automatically created as a result of novel *Klebsiella variicola* subsp. *tropica* subsp. nov. designation	44[f]

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Bacterial nomenclature updates

Gram-positive anaerobes			
Eubacterium budayi	*Clostridium budayi* comb. nov.	Isolated from a cadaver by Buday and later from nonhuman sources by Prevot (217); description identical to that proposed by Prevot	61
Eubacterium nitritogenes	*Clostridium nitritogenes* comb. nov.	Description identical to that of Prevot (217) with review by Wade (218); isolated from human infections and soil	61
Eubacterium combesii	*Clostridium combesii* comb. nov.	Description reviewed by Wade (218); isolated from human infections and African soil. Dobritsa et al. (219) proposed to reclassify *E. combesii* as a later synonym of *Clostridium botulinum*. *E. combesii* does not produce botulinum toxin.	61
Propionibacterium acnes subsp. *elongatum*	*Cutibacterium acnes* subsp. *elongatum*	Description is as reported by Dekio et al. (91); strains can be found on the human skin of the lower back (associated not with acne but with progressive macular hypomelanosis)	92
Propionibacterium acnes subsp. *acnes*	*Cutibacterium acnes* subsp. *acnes*	Description is the same as given for *P. acnes* by McDowell et al. (220) along with list of mass ions by MALDI-TOF MS (92) and G+C content of the type strain genome of 60.0 mol%	92

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Munson and Carroll. 2021. *J Clin Microbiol.* doi: 10.1128/JCM.01309-20.

Bacterial nomenclature updates

Organism type and former name	Revised name	Other information	Reference(s)
Propionibacterium acnes subsp. *defendens*	*Cutibacterium acnes* subsp. *defendens*	Description is the same as previously provided by Nouioui et al. (93); prominent mass ions obtained by MALDI-TOF MS are provided in reference 92	92
Gordonibacter faecihominis	*Gordonibacter urolithinfaciens*	*G. faecihominis* is now considered a later heterotypic synonym of *Gordonibacter urolithinfaciens*, a Gram-positive anaerobic bacillus isolated from the feces of a healthy male (221)	222
Pseudopropionibacterium propionicum	*Arachnia propionica* emend.	Properties of the emended species are as reported in reference 90	64, 90
Pseudopropionibacterium rubrum	*Arachnia rubra* comb. nov.	Properties provided in a novel taxon report (63) and IJSEM addition (141) (Table 1)	64
Ruminococcus faecis	*Mediterraneibacter faecis* comb. nov.	Properties are as reported for *Ruminococcus faecis* in reference 223	94
Ruminococcus lactaris	*Mediterraneibacter lactaris* comb. nov.	Description is the same as that given for *Ruminococcus lactaris* in reference 224	94
Ruminococcus torques	*Mediterraneibacter torques* comb. nov.	Description is the same as that given in reference 225	94
Ruminococcus gnavus	*Mediterraneibacter gnavus* comb. nov.	Description is the same as that for *Ruminococcus gnavus* in reference 224	94
Clostridium glycyrrhizinilyticum	*Mediterraneibacter glycyrrhizinilyticum* comb. nov.	Description is the same as that in reference 226	94
Propionibacterium namnetense	*Cutibacterium namnetense*	Description is the same as that in reference 3	93[b]

Munson and Carroll. 2021. *J Clin Microbiol.* doi: 10.1128/JCM.01309-20.

Bacterial nomenclature updates

- And we can't ignore *Ochrobactrum* → *Brucella*

Ochrobactrum species names	Revised names
Ochrobactrum anthropi[#]	*Brucella anthropi*[#]
Ochrobactrum ciceri	*Brucella ciceri*
Ochrobactrum cytisi	*Brucella cytisi*
Ochrobactrum daejeonense	*Brucella daejeonensis*
Ochrobactrum endophyticum	*Brucella endophytica*
Ochrobactrum gallinifaecis	*Brucella gallinifaecis*
Ochrobactrum grignonense	*Brucella grignonensis*
Ochrobactrum haemotophilum	*Brucella haematophila*
Ochrobactrum intermedium[#]	*Brucella intermedia*[#]
Ochrobactrum lupini	*Brucella lupini*
Ochrobactrum oryzae	*Brucella oryzae*
Ochrobactrum pecoris	*Brucella pecoris*
Ochrobactrum pituitosum	*Brucella pituitosa*
Ochrobactrum pseudointermedium	*Brucella pseudointermedia*
Ochrobactrum pseudogrignonense	*Brucella pseudogrignonensis*
Ochrobactrum rhizosphaerae	*Brucella rhizosphaerae*
Ochrobactrum thiophenivorans	*Brucella thiophenivorans*
Ochrobactrum tritici	*Brucella tritici*

Adapted from: Oren and Garrity. 2022. *Int J Syst Evol Microbiol.* doi: 10.1099/ijsem.0.004244.

Fungal nomenclature updates

Previous species name	Revised species name	Order	Reference no.	MB accession no.[a]
Candida infanticola	*Wickerhamiella infanticola*	*Saccharomycetales*	22	MB 815725
Candida pararugosa	*Wickerhamiella pararugosa*	*Saccharomycetales*	22	MB 815736
Chaetomium atrobrunneum	*Amesia atrobrunnea*	*Sordariales*	36	MB 818 832
Diutina (*Candida*) *mesorugosa*	*Diutina rugosa*	*Saccharomycetales*	24	Not applicable
Fusarium solani species complex 6 (FSSC6)	*Fusarium metavorans*	*Hypocreales*	18	MB 821742
Fusarium metavorans	*Neocosmospora metavorans*	*Hypocreales*	20	MB 823607
Fusarium solani species complex 9 (FSSC9), *Cylindrocarpon tonkinense*/*Fusarium tonkinense*	*Neocosmospora tonkinensis*	*Hypocreales*	20	MB 822904
Fusarium solani species complex 7 (FSSC7)	*Neocosmospora gamsii*	*Hypocreales*	20	MB 822899
Fusarium solani species complex *20 (FSSC20)*	*Neocosmospora suttoniana*	*Hypocreales*	20	MB 822903
Fusarium solani species complex 43 (FSSC43)	*Neocosmospora catenata*	*Hypocreales*	20	MB 822898
Fusarium keratoplasticum	*Neocosmospora keratoplastica*	*Hypocreales*	20	MB 822901
Fusarium lichenicola	*Neocosmospora lichenicola*	*Hypocreales*	20	MB 822900
Fusarium petrophila	*Neocosmospora petroliphila*	*Hypocreales*	20	MB 822902
Emmonsia crescens	*Emergomyces crescens*	*Onygenales*	7	MB 330349
Emmonsia soli	*Emergomyces soli*	*Onygenales*	6, 7	MB 821087

[a]MB, MycoBank.

Borman and Johnson. 2021. *J Clin Microbiol.* doi: 10.1128/JCM.01811-20

Fungal nomenclature updates

TABLE 3 List of how taxonomic revisions affected basidiomycete and ascomycete yeasts of medical importance

Previous species name	Revised species name	Order	Reference no.	MB accession no.
Candida bracarensis	*Nakaseomyces bracarensisa*[a]	*Saccharomycetales*	37	NA[b]
Candida catenulata	*Diutina catenulata*	*Saccharomycetales*	23	MB 813778
Candida eremophila	*Pichia eremophila*	*Saccharomycetales*	38	MB 508435
Candida etchellsii	*Starmerella etchellsii*	*Saccharomycetales*	39	MB 823618
Candida fabianii	*Cyberlindnera fabianii*	*Saccharomycetales*	40	MB 534382
Candida famata	*Debaryomyces hansenii*	*Saccharomycetales*	41	MB 296478
Candida fermentati	*Meyerozyma caribbica*	*Saccharomycetales*	42	MB 513462
Candida glabrata	*Nakaseomyces glabrataa*[a]	*Saccharomycetales*	37	NA
Candida inconspicua	*Pichia cactophila*	*Saccharomycetales*	43	MB 320493
Candida kefyr	*Kluyveromyces marxianus*	*Saccharomycetales*	44	MB 316062
Candida krusei	*Pichia kudriavzevii*	*Saccharomycetales*	45	MB 337013
Candida guilliermondii	*Meyerozyma guilliermondii*	*Saccharomycetales*	42	MB 513463
Candida lambica	*Pichia fermentans*	*Saccharomycetales*	46	MB 252130
Candida lipolytica	*Yarrowia lipolytica*	*Saccharomycetales*	47	MB 108643
Candida lusitaniae	*Clavispora lusitaniae*	*Saccharomycetales*	48	MB 111257
Candida nivariensis	*Nakaseomyces nivariensisa*[a]	*Saccharomycetales*	49	NA
Candida norvegensis	*Pichia norvegensis*	*Saccharomycetales*	50	MB 320514
Candida pelliculosa	*Wickerhamomyces anomalus*	*Saccharomycetales*	38	MB 508390
Candida pintolopesii	*Kazachstania telluris*	*Saccharomycetales*	51	MB 487688
Candida pulcherrima	*Metschnikowia pulcherrima*	*Saccharomycetales*	52	MB 334124
Candida rugosa	*Diutina rugosa*	*Saccharomycetales*	23	MB 813768
Candida sorbosivorans	*Starmerella sorbosivorans*	*Saccharomycetales*	39	MB 823645
Candida utilis	*Cyberlindnera jadinii*	*Saccharomycetales*	40	MB 534383
Cryptococcus albidus	*Naganishia albida*	*Filobasidiales*	27	MB 813141
Cryptococcus curvatus	*Cutaneotrichosporon curvatum*	*Trichosporonales*	27	MB 818663
Cryptococcus diffluens	*Naganishia diffluens*	*Filobasidiales*	27	MB 813172
Cryptococcus laurentii	*Papiliotrema laurentii*	*Tremellales*	27	MB 813295
Pseudozyma antarctica	*Moesziomyces antarcticus*	*Ustilaginales*	53	MB 812714
Pseudozyma aphidis	*Moesziomyces aphidis*	*Ustilaginales*	53	MB 812715
Pseudozyma parantartica	*Moesziomyces parantarcticus*	*Ustilaginales*	53	MB 812717
Rhodotorula minuta	*Cystobasidium minutum*	*Cystobasidiales*	54	MB 809340
Rhodotorula slooffiae	*Cystobasidium slooffiae*	*Cystobasidiales*	54	MB 809341
Stephanoascus ciferrii	*Trichomonascus ciferrii*	*Saccharomycetales*	55	MB 530083
Trichosporon cutaneum	*Cutaneotrichosporon cutaneum*	*Trichosporonales*	27	MB 813398
Trichosporon loubieri	*Apiotrichum loubieri*	*Trichosporonales*	27	MB 813417
Trichosporon mucoides	*Cutaneotrichosporon mucoides*	*Trichosporonales*	27	MB 813402
Trichosporon mycotoxinivorans	*Apiotrichum mycotoxinivorans*	*Trichosporonales*	27	MB 813420

[a]Members of the *Nakaseomyces* clade that currently lack formal registration with MycoBank (MB).
[b]NA, not available.

Borman and Johnson. 2021. *J Clin Microbiol.* doi: 10.1128/JCM.01811-20

Helminth and protozoan nomenclature updates

- Revised helminth and protozoa taxa

Category	Current scientific name	Previous scientific name	Clinical disease	Reason for Nomenclatural Changes	Reporting suggestions	References(s)
Blood and Tissue Protozoa	*Babesia motasi*	*Babesia* strain KO1	Babesiosis	Phylogenetic analysis of *18S rRNA*, COB, and *cox*3 showed *Babesia* KO1 is nestled within the *B. motasi* clade along with ovine strains	*Babesia motasi*	6
Tissue Helminths	*Dirofilaria* sp. genotype Hong Kong	*Dirofilaria hongkongensis*	Subcutaneous dirofilariasis	Originally described as '*Candidatus* Dirofilaria hongkongensis' and failed to designate a holotype or provide a morphological description	*Dirofilaria* sp.; *Dirofilaria* sp. genotype Hong Kong	2, 11
	Spirometra mansoni	*Spirometra ranarum*	Sparganosis	Molecular and morphological analyses have shown that previous records of *Spirometra ranarum* are *S. mansoni*	*Spirometra mansoni*	15, 16

Mathison et al. 2023. *J Clin Microbiol.* doi: 10.1128/JCM.00286-22

Helminth and protozoan nomenclature updates

Category	Current scientific name	Previous scientific name	Reference(s)
Protozoa	*Balantioides coli*	*Balantidium coli, Neobalantidium coli*	1, 2
	Endotrypanum equatoriensis	*Leishmania equatoriensis*	1
	Endotrypanum colombiensis	*Leishmania colombiensis*	1
	Giardia duodenalis	*Giardia lamblia, G. intestinalis*	3
	Iodamoeba buetschlii	*Iodamoeba bütschlii*[a]	4
Helminths			
Nematodes	*Ascaris lumbricoides*	*Ascaris suum*	3
	Calodium hepaticum	*Capillaria hepatica*	4, 47
	Eucoleus aerophilus	*Capillaria aerophila*	4, 47
	Paracapillaria philippinensis	*Capillaria philippinensis*	47
Cestodes	*Adenocephalus pacificus*	*Diphyllobothrium pacificum*	2
	Dibothriocephalus latus[b]	*Diphyllobothrium latum*	2
	Rodentolepis nana	*Hymenolepis nana*[c]	48
	Taenia suihominis	*Taenia asiatica*	1

[a]Note that this spelling of "*bütschlii*" has been incorrectly used in the past but this does not comply with the rules of taxonomy.
[b]Several other, less common *Diphyllobothrium* species have also been moved to the genus *Dibothriocephalus*; see [2].
[c]The related cestode, *Hymenolepis diminuta*, remains in the genus *Hymenolepis*.

Mathison et al. 2023. *J Clin Microbiol.* doi: 10.1128/JCM.00286-22

Helminth and protozoan nomenclature updates

- Recently described organisms or recently described human disease associations

Helminth and protozoan nomenclature updates

- Recently described organisms or recently described human disease associations
  - *Cephalobus cubaensis* (South Africa, 2025)
  - *Trypanosoma dionisii* (China, 2024)
  - *Trichuris hominis* (Côte d'Ivoire, 2024)
  - *Leishmania ellisi* (USA, 2023)
  - *Xiphinema brevicollum* (France, 2022)
  - *Cryptosporidium wrairi* (Spain, 2022)

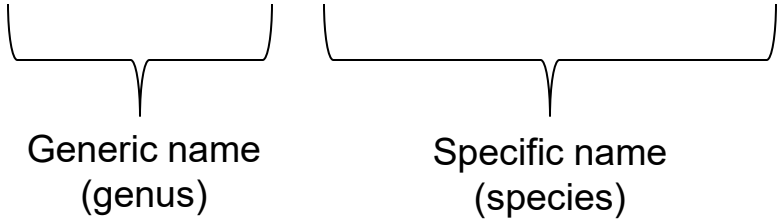
Viral nomenclature updates

- ICTV* released their latest virus taxonomy update in 2024
  - Includes 16,215 species assigned to 3,769 genera, 368 families…
  - **LOTS** of nomenclature revisions to human-pathogenic viruses
    - These changes affect the *formal scientific names*, **not the common names by which we refer to them**

*ICTV = International Committee on Taxonomy of Viruses

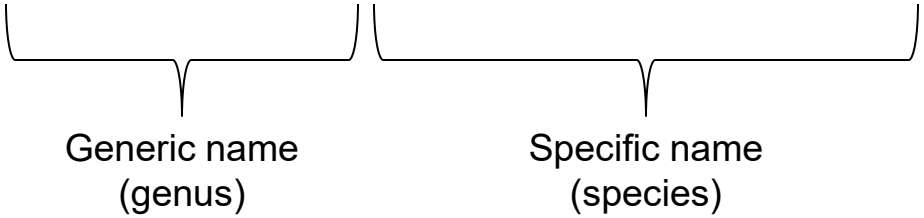
Viral nomenclature updates

- What are you talking about, Ryan?
  - Examples
    - Ebola virus
      - **Virus name:** Ebola virus
      - **Formal name:** *Orthoebolavirus Orthoebolavirus zairense*



Viral nomenclature updates

- What are you talking about, Ryan?
  - Examples
    - RSV
      - **Virus name:** Respiratory syncytial virus
      - **Formal name:** *Orthopneumovirus Orthopneumovirus hominis*



Viral nomenclature updates

- Creation of a new subfamily: *Orthohepevirinae*
  - This new *Hepeviridae* subfamily includes hepatitis E virus (species = *Paslahepevirus balayani*)
  - Separates hepatitis E virus from the subfamily *Parahepevirinae* (cutthroat trout virus [species = *Piscihepevirus heenan*])

Viral nomenclature updates

- Creation of new genera
  - A few examples (of my favorite viruses)
    - *Alphainfluenzavirus* – includes all influenza A viruses
    - *Orthoebolavirus* – includes Bombali, Bundibugyo, Ebola, Reston, Sudan, and Taï Forest viruses
    - *Parahenipavirus* – includes Mojiang and Yangla viruses

Viral nomenclature updates

- Creation of new species
  - A few examples (of my favorite viruses)
    - In the genera *Alphainfluenzavirus* and *Betainfluenzavirus*
      - Influenza A virus = *Alphainfluenzavirus influenzae*
      - Influenza B virus = *Betainfluenzavirus influenzae*
    - In the genus *Bandavirus*
      - Heartland virus = *Bandavirus heartlandense*
      - SFTSV = *Bandavirus dabieense*

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