Escherichia\_coli\_EDL933 Escherichia\_coli\_O157\_H7 Escherichia\_coli\_O6 Escherichia\_coli\_K12 Shigella\_flexneri\_2a\_2457T Shigella\_flexneri\_2a\_301 Salmonella\_enterica Salmonella\_typhi Salmonella\_typhimurium Yersinia\_pestis\_Medievalis Yersinia\_pestis\_KIM Yersinia\_pestis\_CO92 •Photorhabdus\_luminescens Blochmannia\_floridanus Wigglesworthia\_brevipalpis Buchnera\_aphidicola\_Bp Buchnera\_aphidicola\_APS Buchnera\_aphidicola\_Sg Pasteurella\_multocida <sup>l</sup>•Haemophilus\_influenzae <sup>L</sup>•Haemophilus\_ducreyi Vibrio\_vulnificus\_YJ016 Vibrio\_vulnificus\_CMCP6 Vibrio\_parahaemolyticus └•Vibrio\_cholerae Photobacterium\_profundum Shewanella\_oneidensis Pseudomonas\_putida Pseudomonas\_syringae Pseudomonas\_aeruginosa •Xylella\_fastidiosa\_700964 •Xylella\_fastidiosa\_9a5c Xanthomonas\_axonopodis Xanthomonas\_campestris Coxiella\_burnetii Neisseria\_meningitidis\_A •Neisseria\_meningitidis\_B Chromobacterium\_violaceum Bordetella\_pertussis Bordetella\_parapertussis Bordetella\_bronchiseptica Ralstonia\_solanacearum Nitrosomonas\_europaea Agrobacterium\_tumefaciens\_Cereon Agrobacterium\_tumefaciens\_WashU •Rhizobium\_meliloti Brucella\_suis Brucella\_melitensis •Rhizobium\_loti Rhodopseudomonas\_palustris Bradyrhizobium\_japonicum Caulobacter\_crescentus •Wolbachia\_sp.\_wMel Rickettsia\_prowazekii Rickettsia\_conorii Helicobacter\_pylori\_J99 Helicobacter\_pylori\_26695 Helicobacter\_hepaticus Wolinella\_succinogenes Campylobacter\_jejuni Desulfovibrio\_vulgaris Geobacter\_sulfurreducens Bdellovibrio\_bacteriovorus Acidobacterium\_capsulatum Solibacter\_usitatus Fusobacterium\_nucleatum Aquifex\_aeolicus •Thermotoga\_maritima Thermus\_thermophilus Deinococcus\_radiodurans Dehalococcoides\_ethenogenes Nostoc\_sp.\_PCC\_7120 Synechocystis\_sp.\_PCC6803 Synechococcus\_elongatus Synechococcus\_sp.\_WH8102 Prochlorococcus\_marinus\_MIT9313 Prochlorococcus\_marinus\_SS120 Prochlorococcus\_marinus\_CCMP1378 Gloeobacter\_violaceus Gemmata\_obscuriglobus Rhodopirellula\_baltica Leptospira\_interrogans\_L1-130 .eptospira\_interrogans\_56601 Treponema\_pallidum •Treponema\_denticola Borrelia\_burgdorferi Tropheryma\_whipplei\_TW08/27 Tropheryma\_whipplei\_Twist Bifidobacterium\_longum Corynebacterium\_glutamicum\_13032 Corynebacterium\_glutamicum •Corynebacterium\_efficiens Corynebacterium\_diphtheriae Mycobacterium\_bovis Mycobacterium\_tuberculosis\_CDC1551 Mycobacterium\_tuberculosis\_H37Rv •Mycobacterium\_leprae Mycobacterium\_paratuberculosis Streptomyces\_avermitilis Streptomyces\_coelicolor Fibrobacter\_succinogenes •Chlorobium\_tepidum •Porphyromonas\_gingivalis Bacteroides\_thetaiotaomicron Chlamydophila\_pneumoniae\_TW183 \*Chlamydia\_pneumoniae\_J138 •Chlamydia\_pneumoniae\_CWL029 Chlamydia\_pneumoniae\_AR39 Chlamydophila\_caviae Chlamydia\_muridarum -Chlamydia\_trachomatis •Thermoanaerobacter\_tengcongensis Clostridium\_tetani Clostridium\_perfringens Clostridium\_acetobutylicum •Mycoplasma\_mobile Mycoplasma\_pulmonis •Mycoplasma\_pneumoniae Mycoplasma\_genitalium Mycoplasma\_gallisepticum •Mycoplasma\_penetrans Ureaplasma\_parvum •Mycoplasma\_mycoides Phytoplasma\_Onion\_yellows Listeria\_monocytogenes\_F2365 \_isteria\_monocytogenes\_EGD Listeria\_innocua Oceanobacillus\_iheyensis •Bacillus\_halodurans Bacillus\_cereus\_ATCC\_14579 Bacillus\_cereus\_ATCC\_10987 Bacillus\_anthracis Bacillus\_subtilis Staphylococcus\_aureus\_MW2 Staphylococcus\_aureus\_N315 Staphylococcus\_aureus\_Mu50 Staphylococcus\_epidermidis Streptococcus\_agalactiae\_III Streptococcus\_agalactiae\_V Streptococcus\_pyogenes\_M1 Streptococcus\_pyogenes\_MGAS8232 Streptococcus\_pyogenes\_MGAS315 Streptococcus\_pyogenes\_SSI-1 Streptococcus\_mutans Streptococcus\_pneumoniae\_R6 Streptococcus\_pneumoniae\_TIGR4 Lactococcus\_lactis Enterococcus\_faecalis Lactobacillus\_johnsonii .actobacillus\_plantarum Thalassiosira\_pseudonana Cryptosporidium\_hominis Plasmodium\_falciparum •Oryza\_sativa ·Arabidopsis thaliana Cyanidioschyzon\_merolae Dictyostelium\_discoideum Eremothecium\_gossypii Saccharomyces\_cerevisiae Schizosaccharomyces\_pombe •Anopheles\_gambiae Drosophila\_melanogaster Takifugu\_rubripes Danio\_rerio •Rattus\_norvegicus Mus\_musculus Homo\_sapiensPan\_troglodytes •Gallus\_gallus Caenorhabditis\_elegans Caenorhabditis\_briggsae Leishmania\_major Giardia\_lamblia Nanoarchaeum\_equitans Sulfolobus\_tokodaii Sulfolobus\_solfataricus Aeropyrum\_pernix Pyrobaculum\_aerophilum Thermoplasma\_volcanium Thermoplasma\_acidophilum Methanobacterium\_thermautotrophicum Methanopyrus\_kandleri Methanococcus\_maripaludis •Methanococcus\_jannaschii Pyrococcus\_horikoshii •Pyrococcus\_abyssi Pyrococcus\_furiosus Archaeoglobus\_fulgidus Halobacterium\_sp.\_NRC-1 Methanosarcina\_acetivorans <sup>l</sup>•Methanosarcina\_mazei 0.737975