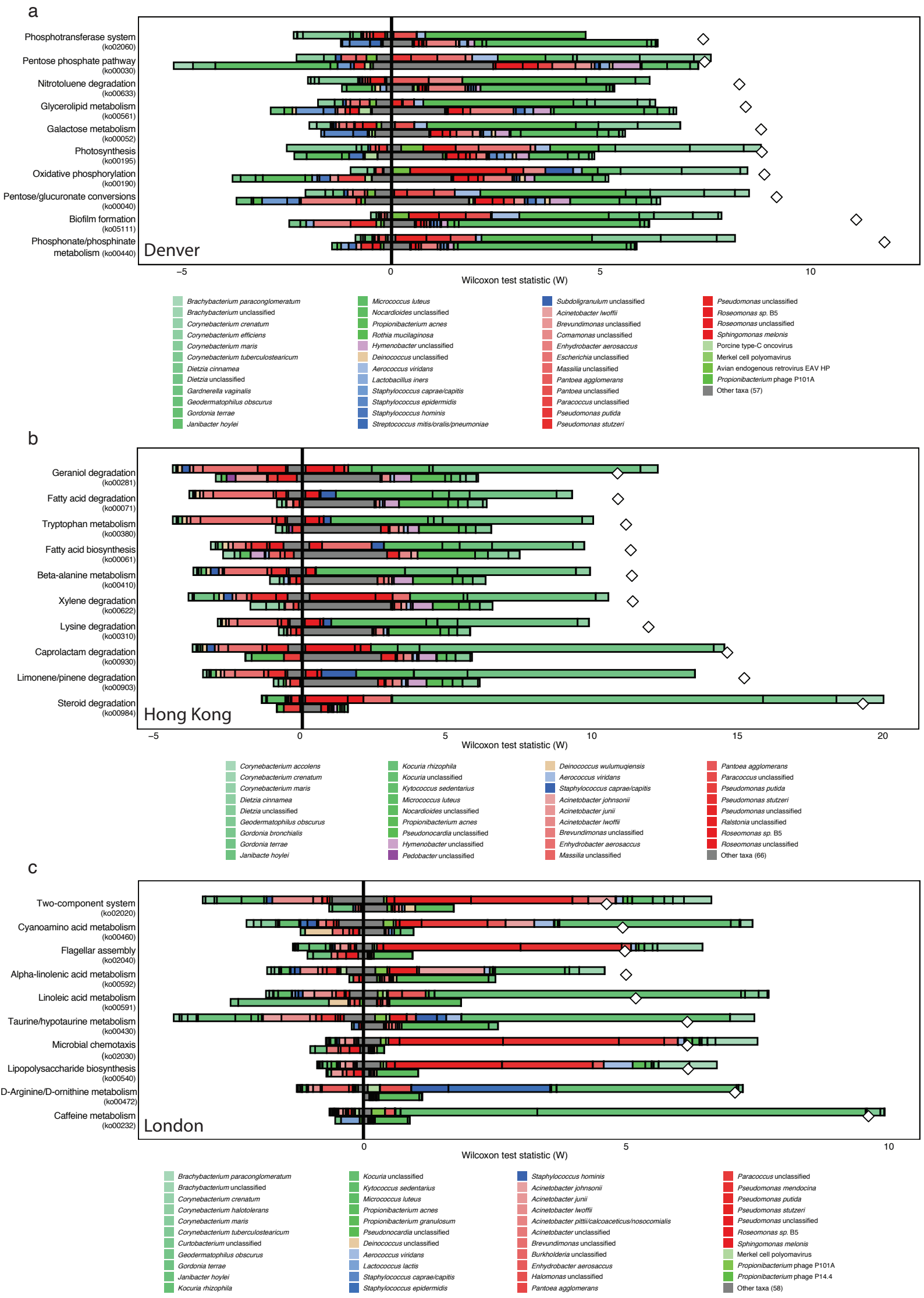
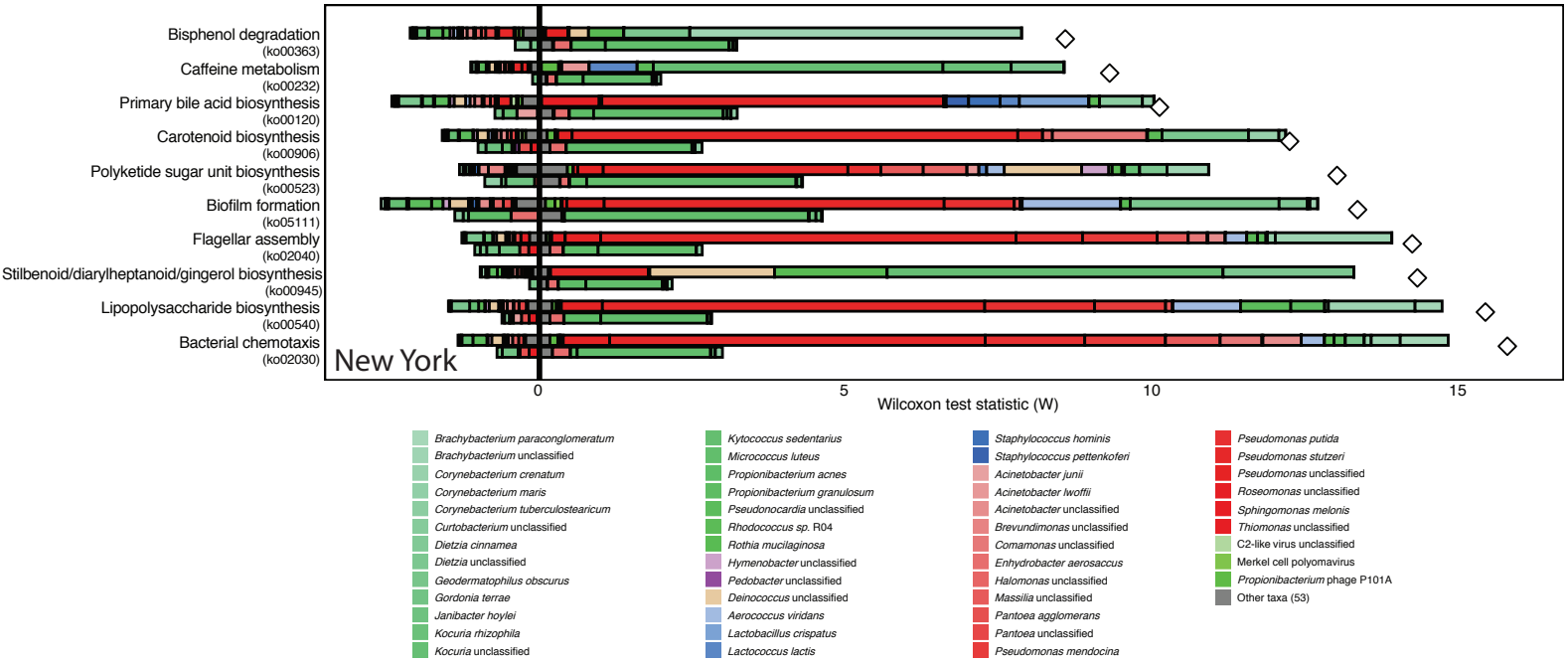
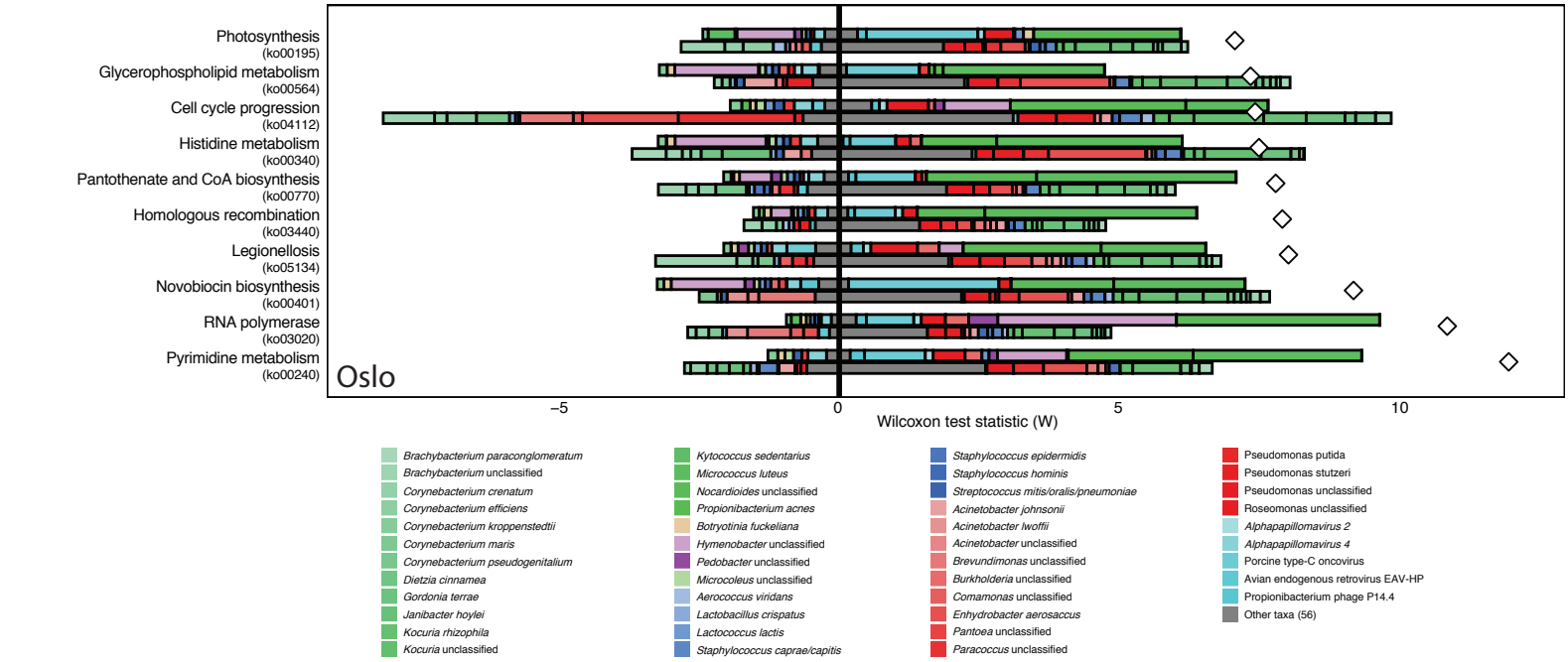

a
Phosphotransferase system (ko02060)
Pentose phosphate pathway (ko00030)
Nitrotoluene degradation (ko00633)
Glycerolipid metabolism (ko00561)
Galactose metabolism (ko00052)
Photosynthesis (ko00195)
Oxidative phosphorylation (ko00190)
Pentose/glucuronate conversions (ko00040)
Biofilm formation (ko05111)
Phosphonate/phosphinate metabolism (ko00440)
Denver
−5
0
5
10
Wilcoxon test statistic (W)
Brachybacterium paraconglomeratum
Brachybacterium unclassified
Corynebacterium crenatum
Corynebacterium efficiens
Corynebacterium maris
Corynebacterium tuberculostearicum
Dietzia cinnamea
Dietzia unclassified
Gardnerella vaginalis
Geodermatophilus obscurus
Gordonia terrae
Janibacter hoylei
Micrococcus luteus
Nocardioides unclassified
Propionibacterium acnes
Rothia mucilaginosa
Hymenobacter unclassified
Deinococcus unclassified
Aerococcus viridans
Lactobacillus iners
Staphylococcus caprae/capitis
Staphylococcus epidermidis
Staphylococcus hominis
Streptococcus mitis/oralis/pneumoniae
Subdoligranulum unclassified
Acinetobacter lwoffii
Brevundimonas unclassified
Comamonas unclassified
Enhydrobacter aerosaccus
Escherichia unclassified
Massilia unclassified
Pantoea agglomerans
Pantoea unclassified
Paracoccus unclassified
Pseudomonas putida
Pseudomonas stutzeri
Pseudomonas unclassified
Roseomonas sp. B5
Roseomonas unclassified
Sphingomonas melonis
Porcine type-C oncovirus
Merkel cell polyomavirus
Avian endogenous retrovirus EAV HP
Propionibacterium phage P101A
Other taxa (57)
b
Geraniol degradation (ko00281)
Fatty acid degradation (ko00071)
Tryptophan metabolism (ko00380)
Fatty acid biosynthesis (ko00061)
Beta-alanine metabolism (ko00410)
Xylene degradation (ko00622)
Lysine degradation (ko00310)
Caprolactam degradation (ko00930)
Limonene/pinene degradation (ko00903)
Steroid degradation (ko00984)
Hong Kong
−5
0
5
10
15
20
Wilcoxon test statistic (W)
Corynebacterium accolens
Corynebacterium crenatum
Corynebacterium maris
Dietzia cinnamea
Dietzia unclassified
Geodermatophilus obscurus
Gordonia bronchialis
Gordonia terrae
Janibacte hoylei
Kocuria rhizophila
Kocuria unclassified
Kytococcus sedentarius
Micrococcus luteus
Nocardioides unclassified
Propionibacterium acnes
Pseudonocardia unclassified
Hymenobacter unclassified
Pedobacter unclassified
Deinococcus wulumuqiensis
Aerococcus viridans
Staphylococcus caprae/capitis
Acinetobacter johnsonii
Acinetobacter junii
Acinetobacter lwoffii
Brevundimonas unclassified
Enhydrobacter aerosaccus
Massilia unclassified
Pantoea agglomerans
Paracoccus unclassified
Pseudomonas putida
Pseudomonas stutzeri
Pseudomonas unclassified
Ralstonia unclassified
Roseomonas sp. B5
Roseomonas unclassified
Other taxa (66)
c
Two-component system (ko02020)
Cyanoamino acid metabolism (ko00460)
Flagellar assembly (ko02040)
Alpha-linolenic acid metabolism (ko00592)
Linoleic acid metabolism (ko00591)
Taurine/hypotaurine metabolism (ko00430)
Microbial chemotaxis (ko02030)
Lipopolysaccharide biosynthesis (ko00540)
D-Arginine/D-ornithine metabolism (ko00472)
Caffeine metabolism (ko00232)
London
0
5
10
Wilcoxon test statistic (W)
Brachybacterium paraconglomeratum
Brachybacterium unclassified
Corynebacterium crenatum
Corynebacterium halotolerans
Corynebacterium maris
Corynebacterium tuberculostearicum
Curtobacterium unclassified
Geodermatophilus obscurus
Gordonia terrae
Janibacter hoylei
Kocuria rhizophila
Kocuria unclassified
Kytococcus sedentarius
Micrococcus luteus
Propionibacterium acnes
Propionibacterium granulosum
Pseudonocardia unclassified
Deinococcus unclassified
Aerococcus viridans
Lactococcus lactis
Staphylococcus caprae/capitis
Staphylococcus epidermidis
Staphylococcus hominis
Acinetobacter johnsonii
Acinetobacter junii
Acinetobacter lwoffii
Acinetobacter pittii/calcoaceticus/nosocomialis
Acinetobacter unclassified
Brevundimonas unclassified
Burkholderia unclassified
Enhydrobacter aerosaccus
Halomonas unclassified
Pantoea agglomerans
Paracoccus unclassified
Pseudomonas mendocina
Pseudomonas putida
Pseudomonas stutzeri
Pseudomonas unclassified
Roseomonas sp. B5
Sphingomonas melonis
Merkel cell polyomavirus
Propionibacterium phage P101A
Propionibacterium phage P14.4
Other taxa (58)

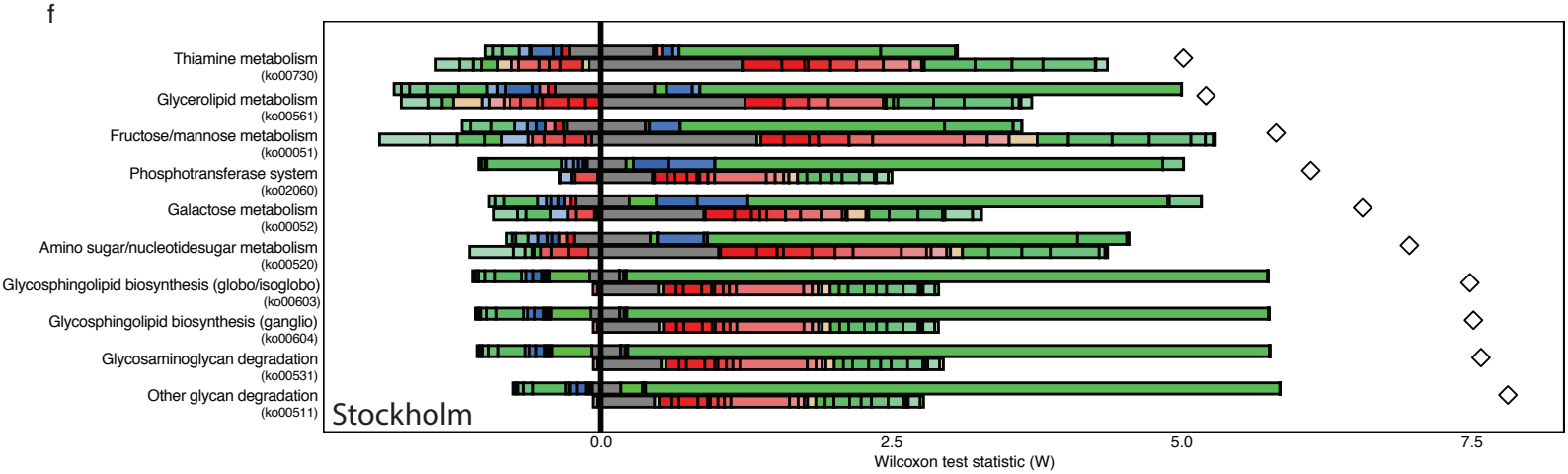
d

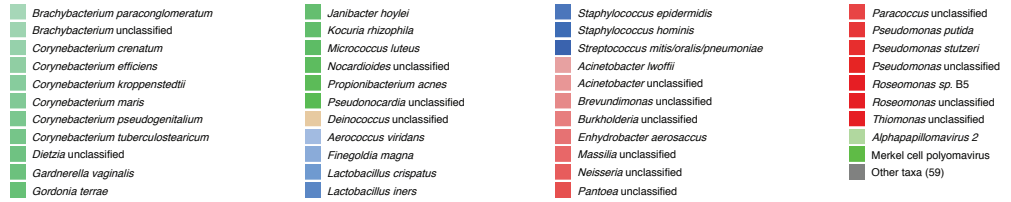


e



f





Additional File 4: Figure S2