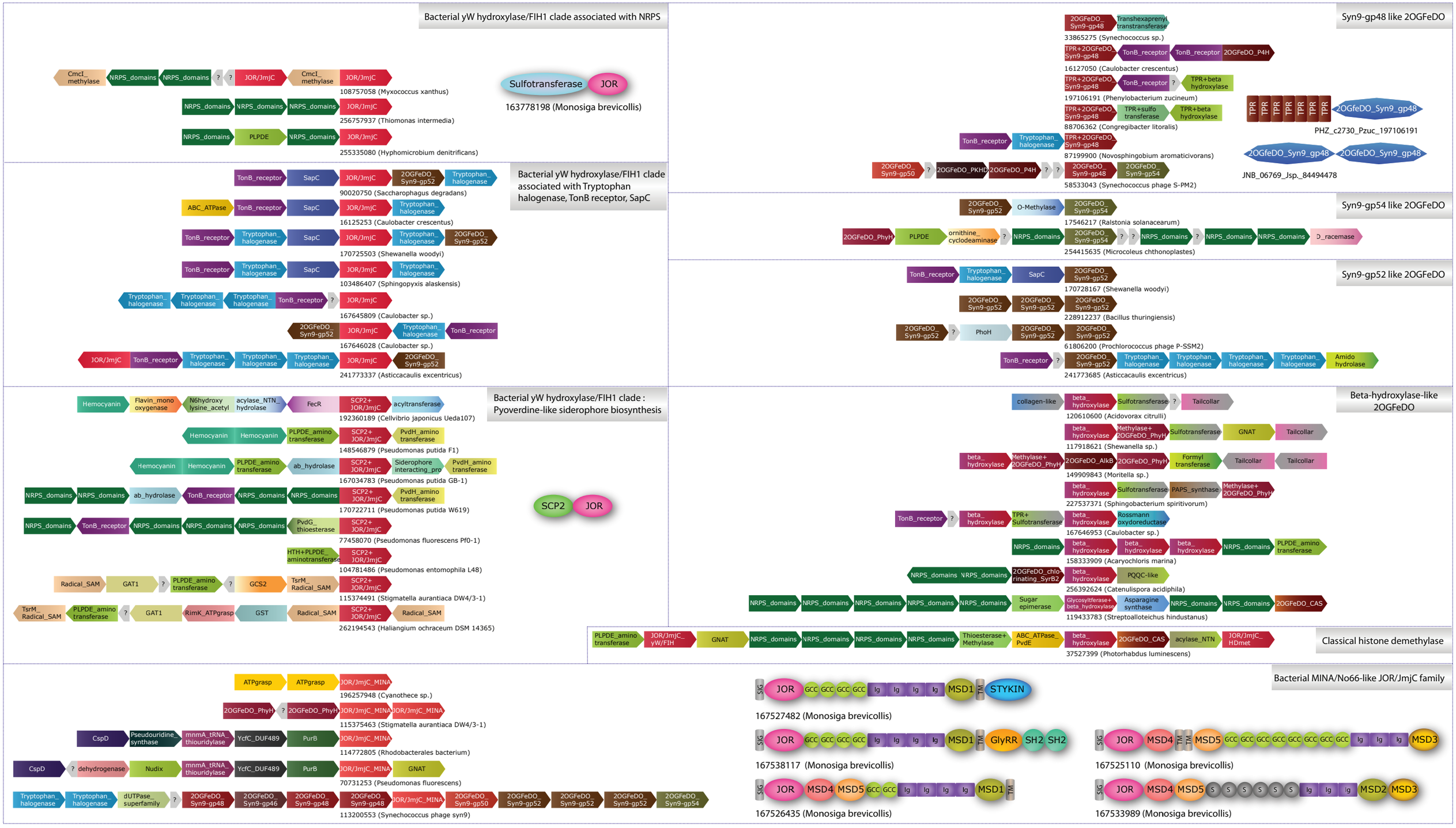
Bacterial yW hydroxylase/FIH1 clade associated with NRPS
CmcI_methylase
NRPS_domains
NRPS_domains
?
?
JOR/JmjC
CmcI_methylase
JOR/JmjC
108757058 (Myxococcus xanthus)
NRPS_domains
NRPS_domains
NRPS_domains
JOR/JmjC
256757937 (Thiomonas intermedia)
NRPS_domains
PLPDE
NRPS_domains
JOR/JmjC
255335080 (Hyphomicrobium denitrificans)
Sulfotransferase
JOR
163778198 (Monosiga brevicollis)
Bacterial yW hydroxylase/FIH1 clade associated with Tryptophan halogenase, TonB receptor, SapC
TonB_receptor
SapC
JOR/JmjC
2OGFeDO_Syn9-gp52
Tryptophan_halogenase
90020750 (Saccharophagus degradans)
ABC_ATPase
TonB_receptor
SapC
JOR/JmjC
Tryptophan_halogenase
16125253 (Caulobacter crescentus)
TonB_receptor
Tryptophan_halogenase
SapC
JOR/JmjC
Tryptophan_halogenase
2OGFeDO_Syn9-gp52
170725503 (Shewanella woodyi)
TonB_receptor
Tryptophan_halogenase
SapC
JOR/JmjC
Tryptophan_halogenase
103486407 (Sphingopyxis alaskensis)
Tryptophan_halogenase
Tryptophan_halogenase
Tryptophan_halogenase
TonB_receptor
?
JOR/JmjC
167645809 (Caulobacter sp.)
2OGFeDO_Syn9-gp52
JOR/JmjC
Tryptophan_halogenase
TonB_receptor
167646028 (Caulobacter sp.)
JOR/JmjC
TonB_receptor
Tryptophan_halogenase
Tryptophan_halogenase
Tryptophan_halogenase
JOR/JmjC
2OGFeDO_Syn9-gp52
241773337 (Asticcacaulis excentricus)
Bacterial yW hydroxylase/FIH1 clade : Pyoverdine-like siderophore biosynthesis
Hemocyanin
Flavin_mono oxygenase
N6hydroxy lysine_acetyl
acylase_NTN_hydrolase
FecR
SCP2+ JOR/JmjC
acyltransferase
192360189 (Cellvibrio japonicus Ueda107)
Hemocyanin
Hemocyanin
PLPDE_amino transferase
SCP2+ JOR/JmjC
PvdH_amino transferase
148546879 (Pseudomonas putida F1)
Hemocyanin
Hemocyanin
PLPDE_amino transferase
ab_hydrolase
SCP2+ JOR/JmjC
Siderophore interacting_pro
PvdH_amino transferase
167034783 (Pseudomonas putida GB-1)
NRPS_domains
NRPS_domains
ab_hydrolase
TonB_receptor
NRPS_domains
NRPS_domains
SCP2+ JOR/JmjC
PvdH_amino transferase
170722711 (Pseudomonas putida W619)
NRPS_domains
TonB_receptor
NRPS_domains
NRPS_domains
NRPS_domains
PvdG_thioesterase
SCP2+ JOR/JmjC
77458070 (Pseudomonas fluorescens Pf0-1)
HTH+PLPDE_aminotransferase
SCP2+ JOR/JmjC
104781486 (Pseudomonas entomophila L48)
Radical_SAM
GAT1
?
PLPDE_amino transferase
?
GCS2
TsrM_Radical_SAM
SCP2+ JOR/JmjC
115374491 (Stigmatella aurantiaca DW4/3-1)
TsrM_Radical_SAM
PLPDE_amino transferase
?
GAT1
RimK_ATPgrasp
GST
Radical_SAM
SCP2+ JOR/JmjC
Radical_SAM
262194543 (Haliangium ochraceum DSM 14365)
SCP2
JOR
Syn9-gp48 like 2OGFeDO
2OGFeDO_Syn9-gp48
Transhexaprenyl transtransferase
33865275 (Synechococcus sp.)
TPR+2OGFeDO_Syn9-gp48
TonB_receptor
TonB_receptor
2OGFeDO_P4H
16127050 (Caulobacter crescentus)
TPR+2OGFeDO_Syn9-gp48
TonB_receptor
?
TPR+beta hydroxylase
197106191 (Phenylobacterium zucineum)
TPR+2OGFeDO_Syn9-gp48
TPR+sulfo transferase
TPR+beta hydroxylase
88706362 (Congregibacter litoralis)
TonB_receptor
Tryptophan_halogenase
TPR+2OGFeDO_Syn9-gp48
87199900 (Novosphingobium aromaticivorans)
2OGFeDO_Syn9-gp50
?
2OGFeDO_PKHD
2OGFeDO_P4H
?
?
2OGFeDO_Syn9-gp48
2OGFeDO_Syn9-gp54
58533043 (Synechococcus phage S-PM2)
TPR
TPR
TPR
TPR
TPR
TPR
TPR
2OGfeDO_Syn9_gp48
PHZ_c2730_Pzuc_197106191
2OGfeDO_Syn9_gp48
2OGfeDO_Syn9_gp48
JNB_06769_Jsp._84494478
Syn9-gp54 like 2OGFeDO
2OGFeDO_Syn9-gp52
O-Methylase
2OGFeDO_Syn9-gp54
17546217 (Ralstonia solanacearum)
2OGFeDO_PhyH
PLPDE
ornithine_cyclodeaminase
?
NRPS_domains
2OGFeDO_Syn9-gp54
?
?
NRPS_domains
?
NRPS_domains
NRPS_domains
D_racemase
254415635 (Microcoleus chthonoplastes)
Syn9-gp52 like 2OGFeDO
TonB_receptor
Tryptophan_halogenase
SapC
2OGFeDO_Syn9-gp52
170728167 (Shewanella woodyi)
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp52
228912237 (Bacillus thuringiensis)
2OGFeDO_Syn9-gp52
?
PhoH
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp52
61806200 (Prochlorococcus phage P-SSM2)
TonB_receptor
?
2OGFeDO_Syn9-gp52
Tryptophan_halogenase
Tryptophan_halogenase
Tryptophan_halogenase
Tryptophan_halogenase
Amido hydrolase
241773685 (Asticcacaulis excentricus)
Beta-hydroxylase-like 2OGFeDO
collagen-like
beta_hydroxylase
Sulfotransferase
?
Tailcollar
120610600 (Acidovorax citrulli)
beta_hydroxylase
Methylase+ 2OGFeDO_PhyH
Sulfotransferase
GNAT
Tailcollar
117918621 (Shewanella sp.)
beta_hydroxylase
Methylase+ 2OGFeDO_PhyH
2OGFeDO_AlkB
2OGFeDO_PhyH
Formyl transferase
Tailcollar
Tailcollar
149909843 (Moritella sp.)
beta_hydroxylase
Sulfotransferase
PAPS_synthase
Methylase+ 2OGFeDO_PhyH
227537371 (Sphingobacterium spiritivorum)
TonB_receptor
?
beta_hydroxylase
TPR+ Sulfotransferase
beta_hydroxylase
Rossmann oxydoreductase
167646953 (Caulobacter sp.)
NRPS_domains
beta_hydroxylase
beta_hydroxylase
beta_hydroxylase
NRPS_domains
PLPDE_amino transferase
158333909 (Acaryochloris marina)
NRPS_domains
NRPS_domains
2OGFeDO_chlorinating_SyrB2
beta_hydroxylase
PQQC-like
256392624 (Catenulispora acidiphila)
NRPS_domains
NRPS_domains
NRPS_domains
NRPS_domains
NRPS_domains
Sugar epimerase
Glycosyltferase+ beta_hydroxylase
Asparagine synthase
NRPS_domains
NRPS_domains
2OGFeDO_CAS
119433783 (Streptoalloteichus hindustanus)
PLPDE_amino transferase
JOR/JmjC_yW/FIH
GNAT
NRPS_domains
NRPS_domains
NRPS_domains
NRPS_domains
Thioesterase+ Methylase
ABC_ATPase_PvdE
beta_hydroxylase
2OGFeDO_CAS
acylase_NTN
JOR/JmjC_HDmet
37527399 (Photorhabdus luminescens)
Classical histone demethylase
ATPgrasp
ATPgrasp
JOR/JmjC_MINA
196257948 (Cyanothece sp.)
2OGFeDO_PhyH
?
2OGFeDO_PhyH
JOR/JmjC_MINA
JOR/JmjC_MINA
115375463 (Stigmatella aurantiaca DW4/3-1)
CspD
Pseudouridine_synthase
mnmA_tRNA_thiouridylase
YcfC_DUF489
PurB
JOR/JmjC_MINA
114772805 (Rhodobacterales bacterium)
CspD
?
dehydrogenase
Nudix
mnmA_tRNA_thiouridylase
YcfC_DUF489
PurB
JOR/JmjC_MINA
GNAT
70731253 (Pseudomonas fluorescens)
Tryptophan_halogenase
Tryptophan_halogenase
dUTPase_superfamily
?
2OGFeDO_Syn9-gp48
2OGFeDO_Syn9-gp46
2OGFeDO_Syn9-gp48
2OGFeDO_Syn9-gp48
JOR/JmjC_MINA
2OGFeDO_Syn9-gp50
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp52
2OGFeDO_Syn9-gp54
113200553 (Synechococcus phage syn9)
Bacterial MINA/No66-like JOR/JmjC family
SIG
JOR
GCC
GCC
GCC
GCC
Ig
Ig
Ig
Ig
MSD1
TM
STYKIN
167527482 (Monosiga brevicollis)
SIG
JOR
GCC
GCC
GCC
GCC
Ig
Ig
Ig
Ig
MSD1
TM
GlyRR
SH2
SH2
167538117 (Monosiga brevicollis)
SIG
JOR
MSD4
TM
TM
MSD5
GCC
GCC
GCC
GCC
GCC
GCC
GCC
GCC
Ig
Ig
Ig
MSD3
167525110 (Monosiga brevicollis)
SIG
JOR
MSD4
MSD5
GCC
GCC
Ig
Ig
Ig
Ig
MSD1
TM
167526435 (Monosiga brevicollis)
SIG
JOR
MSD4
MSD5
S
S
S
S
S
S
Ig
Ig
Ig
MSD2
MSD3
167533989 (Monosiga brevicollis)