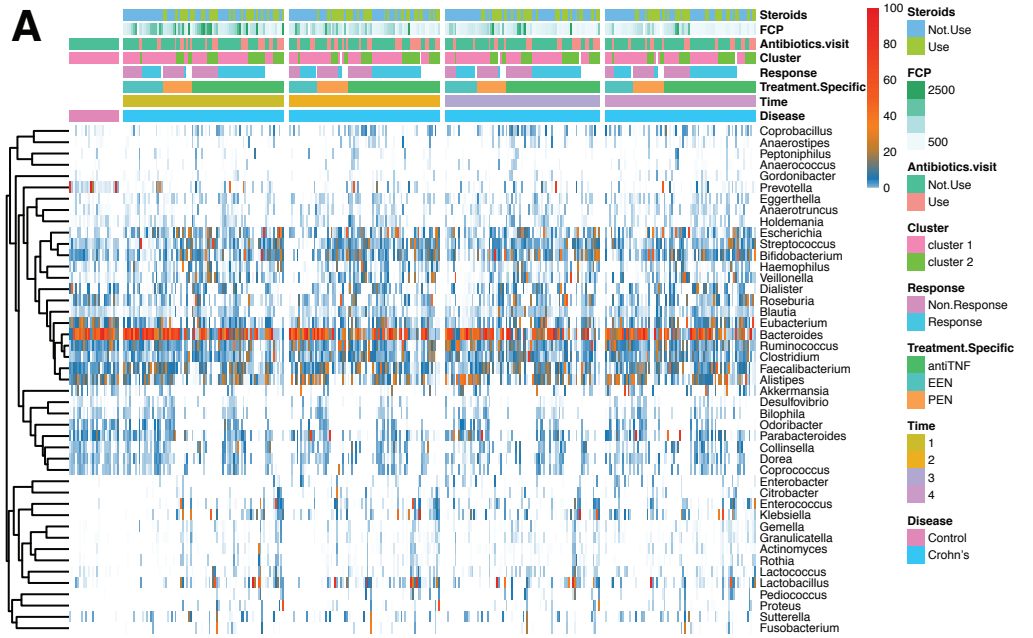
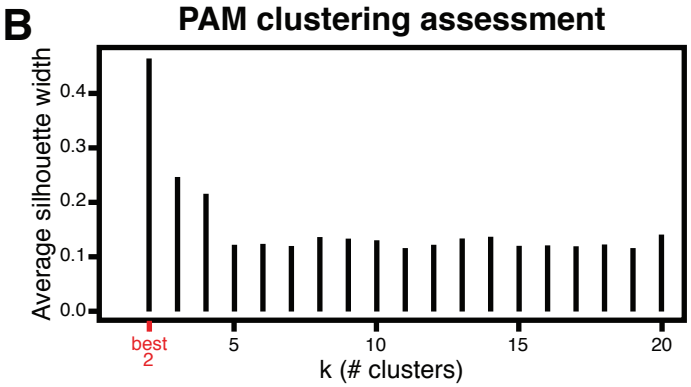
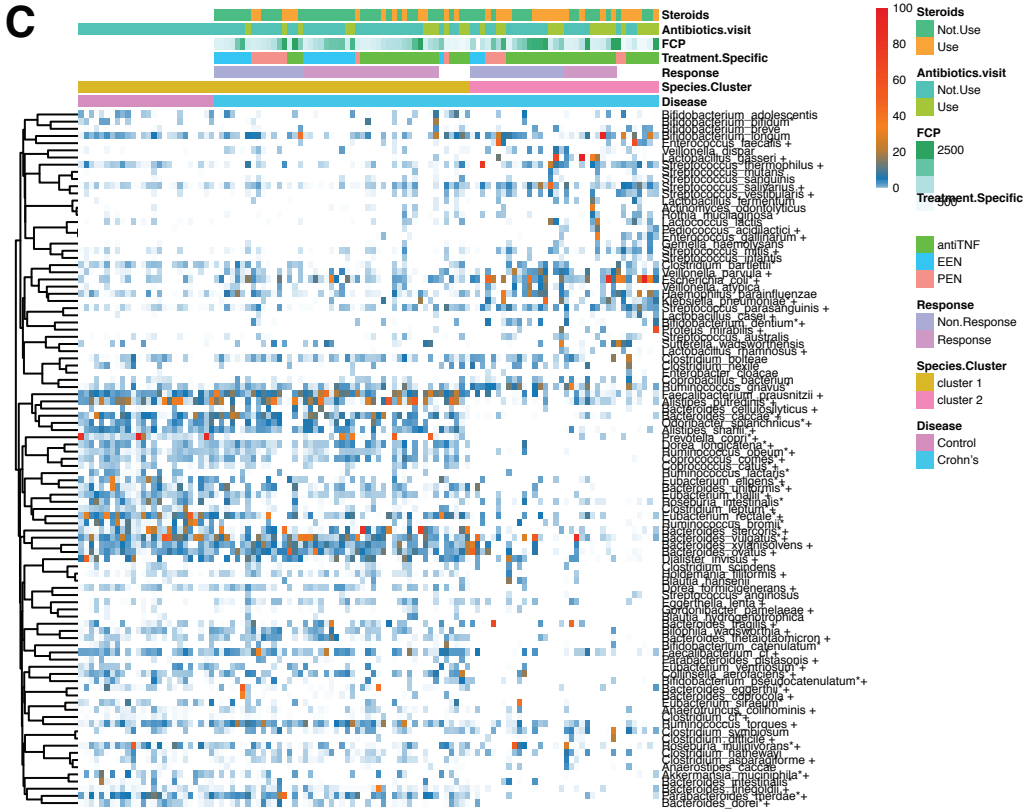
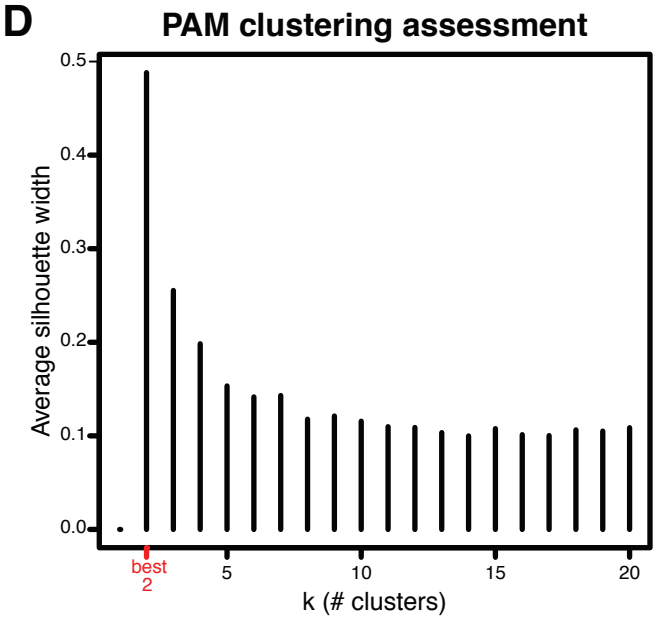
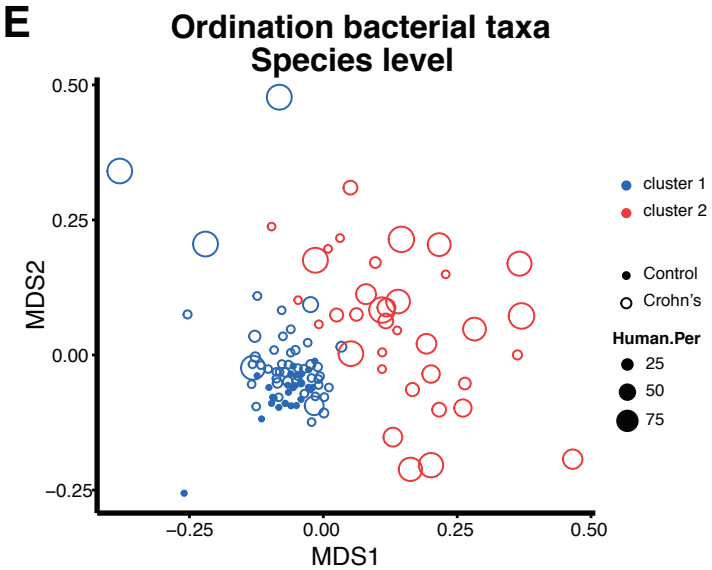

A
Steroids
FCP
Antibiotics.visit
Cluster
Response
Treatment.Specific
Time
Disease
Coprobacillus
Anaerostipes
Peptoniphilus
Anaerococcus
Gordonibacter
Prevotella
Eggerthella
Anaerotruncus
Holdemania
Escherichia
Streptococcus
Bifidobacterium
Haemophilus
Veillonella
Dialister
Roseburia
Blautia
Eubacterium
Bacteroides
Ruminococcus
Clostridium
Faecalibacterium
Alistipes
Akkermansia
Desulfovibrio
Bilophila
Odoribacter
Parabacteroides
Collinsella
Dorea
Coprococcus
Enterobacter
Citrobacter
Enterococcus
Klebsiella
Gemella
Granulicatella
Actinomyces
Rothia
Lactococcus
Lactobacillus
Pediococcus
Proteus
Sutterella
Fusobacterium
100
80
60
40
20
0
Steroids
Not.Use
Use
FCP
2500
500
Antibiotics.visit
Not.Use
Use
Cluster
cluster 1
cluster 2
Response
Non.Response
Response
Treatment.Specific
antiTNF
EEN
PEN
Time
1
2
3
4
Disease
Control
Crohn's


B
PAM clustering assessment
Average silhouette width
0.0
0.1
0.2
0.3
0.4
best
2
5
10
15
20
k (# clusters)


C
Steroids
Antibiotics.visit
FCP
Treatment.Specific
Response
Species.Cluster
Disease
Bifidobacterium_adolescentis
Bifidobacterium_bifidum
Bifidobacterium_breve
Bifidobacterium_longum
Enterococcus_faecalis +
Veillonella_dispar
Lactobacillus_casei +
Streptococcus_thermophilus +
Streptococcus_mitis
Streptococcus_sanguinis
Streptococcus_salivarius +
Streptococcus_parasanguinis +
Lactobacillus_fermentum
Actinomyces_odontolyticus
Rothia_mucilaginosa
Lactococcus_lactis
Pediococcus_acidilactici +
Enterococcus_casseliflavus +
Gemella_haemolysans
Streptococcus_mitis +
Streptococcus_gallolyticus
Clostridium_bartlettii
Veillonella_parvula +
Escherichia_coli +
Veillonella_atypica
Haemophilus_parainfluenzae
Klebsiella_pneumoniae +
Streptococcus_parasanguinis +
Lactobacillus_casei +
Bifidobacterium_dentium*+
Erysipelotrichaceae_incertae_sedis
Streptococcus_australis
Sutterella_wadsworthensis
Lactobacillus_rhamnosus +
Clostridium_bolteae
Clostridium_hathewayi
Enterobacter_cloacae
Coprobacillus_cateniformis
Ruminococcus_gnavus
Faecalibacterium_prausnitzii +
Alistipes_putredinis*+
Bacteroides_cellulosilyticus +
Bacteroides_caccae +
Odoribacter_splanchnicus*+
Alistipes_shahii+
Prevotella_copri*+
Dorea_longicatena*+
Ruminococcus_obeum*+
Coprococcus_comes*+
Coprococcus_catus*+
Ruminococcus_lactaris*
Eubacterium_siraeum*+
Bacteroides_uniformis*+
Eubacterium_hallii*+
Roseburia_intestinalis*
Clostridium_leptum*+
Eubacterium_rectale*+
Ruminococcus_bromii*+
Bacteroides_stercoris*+
Bacteroides_xylanisolvens +
Bacteroides_vulgatus +
Dialister_invisus +
Clostridium_scindens
Holdemanella_biformis +
Blautia_hansenii
Dorea_formicigenerans +
Streptococcus_anginosus
Eggerthella_lenta +
Gordonibacter_pamelaeae +
Blautia_hydrogenotrophica
Bacteroides_fragilis +
Bilophila_wadsworthia +
Bacteroides_thetaiotaomicron +
Bifidobacterium_catenulatum
Faecalibacterium_sp +
Parabacteroides_distasonis +
Eubacterium_ventriosum +
Collinsella_aerofaciens +
Bifidobacterium_pseudocatenulatum*+
Bacteroides_eggerthii +
Bacteroides_coprocola +
Eubacterium_siraeum
Anaerotruncus_colihominis +
Clostridium_sp +
Ruminococcus_torques +
Clostridium_symbiosum
Clostridium_aldrichii +
Roseburia_inulinivorans*+
Clostridium_hathewayi
Clostridium_asparagiforme +
Anaerostipes_caccae
Akkermansia_muciniphila*+
Bacteroides_intestinalis
Bacteroides_finegoldii +
Parabacteroides_merdae*+
Bacteroides_dorei +
100
80
60
40
20
0
Steroids
Not.Use
Use
Antibiotics.visit
Not.Use
Use
FCP
2500
500
Treatment.Specific
antiTNF
EEN
PEN
Response
Non.Response
Response
Species.Cluster
cluster 1
cluster 2
Disease
Control
Crohn's


D
PAM clustering assessment
Average silhouette width
0.0
0.1
0.2
0.3
0.4
0.5
best
2
5
10
15
20
k (# clusters)


E
Ordination bacterial taxa
Species level
MDS2
0.50
0.25
0.00
−0.25
MDS1
−0.25
0.00
0.25
0.50
cluster 1
cluster 2
Control
Crohn's
Human.Per
25
50
75