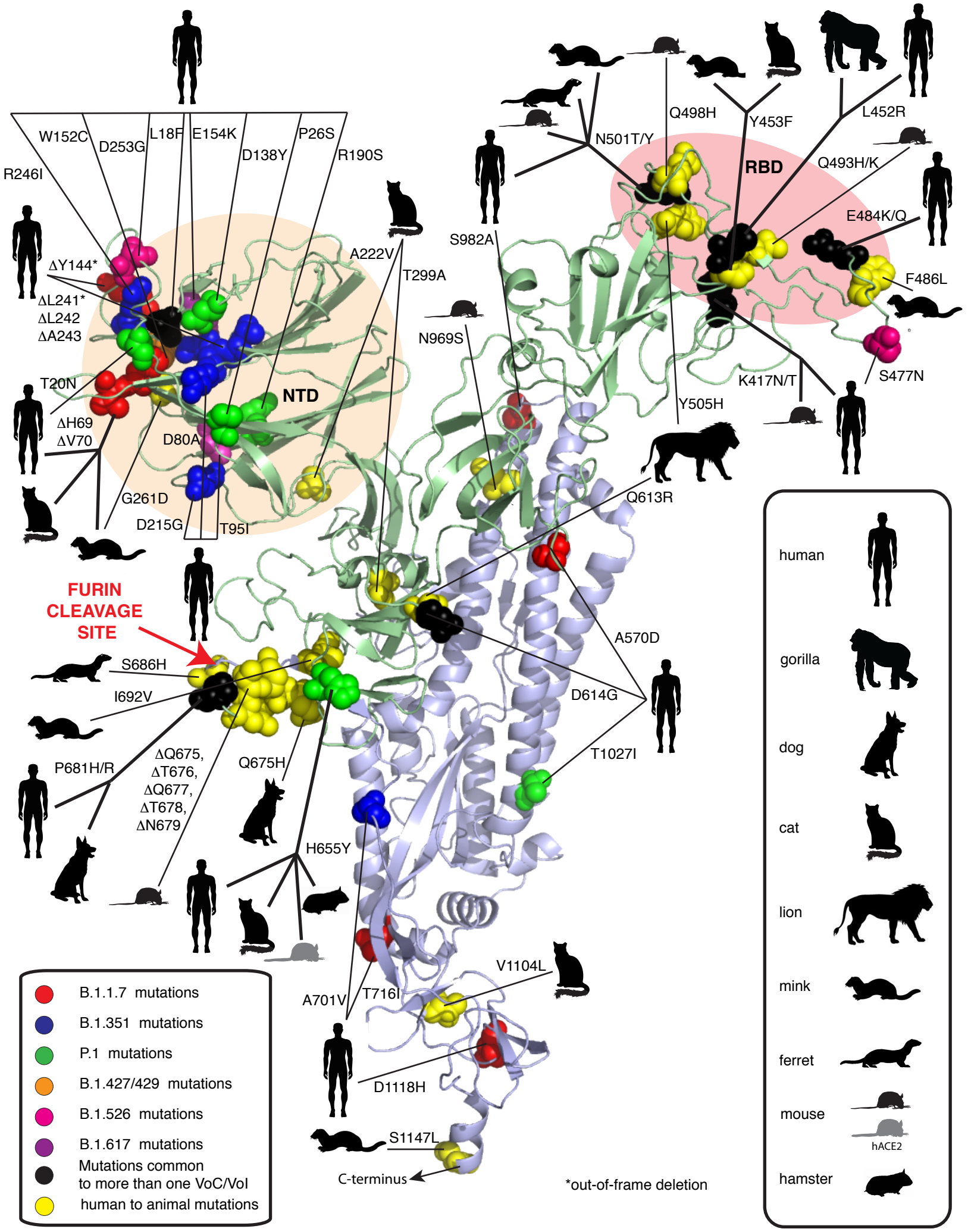
W152C
D253G
L18F
E154K
P26S
D138Y
R190S
R246I
ΔY144*
ΔL241*
ΔL242
ΔA243
T20N
ΔH69
ΔV70
D80A
G261D
D215G
T95I
NTD
A222V
T299A
N969S
S982A
N501T/Y
Q498H
Y453F
L452R
RBD
Q493H/K
E484K/Q
F486L
S477N
K417N/T
Y505H
Q613R
A570D
D614G
T1027I
FURIN
CLEAVAGE
SITE
S686H
I692V
P681H/R
ΔQ675,
ΔT676,
ΔQ677,
ΔT678,
ΔN679
Q675H
H655Y
A701V
T716I
V1104L
D1118H
S1147L
C-terminus
*out-of-frame deletion
B.1.1.7 mutations
B.1.351 mutations
P.1 mutations
B.1.427/429 mutations
B.1.526 mutations
B.1.617 mutations
Mutations common
to more than one VoC/VoI
human to animal mutations
human
gorilla
dog
cat
lion
mink
ferret
mouse
hACE2
hamster