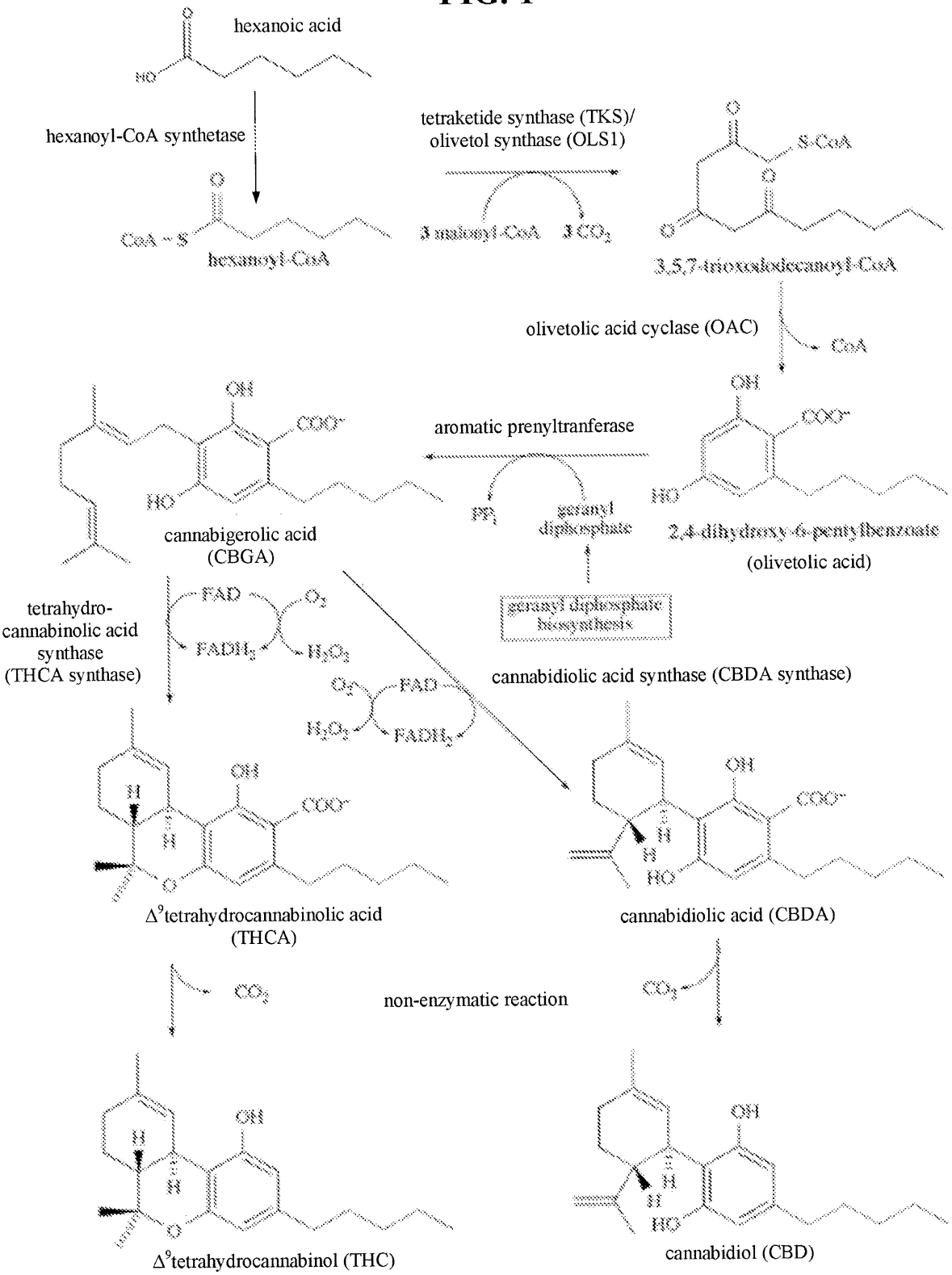
FIG. 1


hexanoic acid
hexanoyl-CoA synthetase
hexanoyl-CoA
tetraketide synthase (TKS)/
olivetol synthase (OLS1)
3 malonyl-CoA
3 CO2
3,5,7-trioxododecanoyl-CoA
olivetolic acid cyclase (OAC)
CoA
aromatic prenyltranferase
PP
geranyl diphosphate
2,4-dihydroxy-6-pentylbenzoate
(olivetolic acid)
cannabigerolic acid
(CBGA)
geranyl diphosphate biosynthesis
tetrahydro-
cannabinolic acid
synthase
(THCA synthase)
FAD
O2
FADH2
H2O2
cannabidiolic acid synthase (CBDA synthase)
Δ9tetrahydrocannabinolic acid
(THCA)
cannabidiolic acid (CBDA)
CO2
non-enzymatic reaction
Δ9tetrahydrocannabinol (THC)
cannabidiol (CBD)

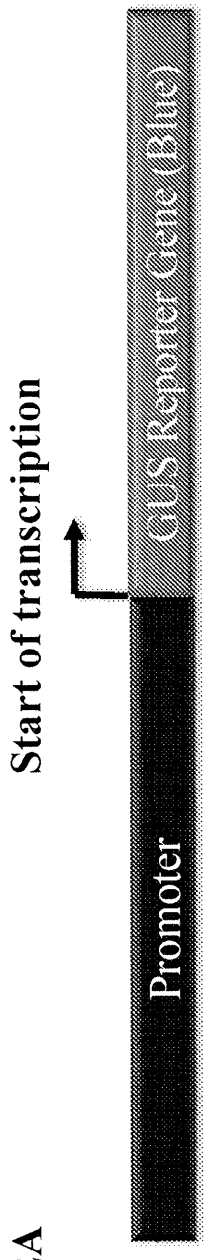


FIG. 2A

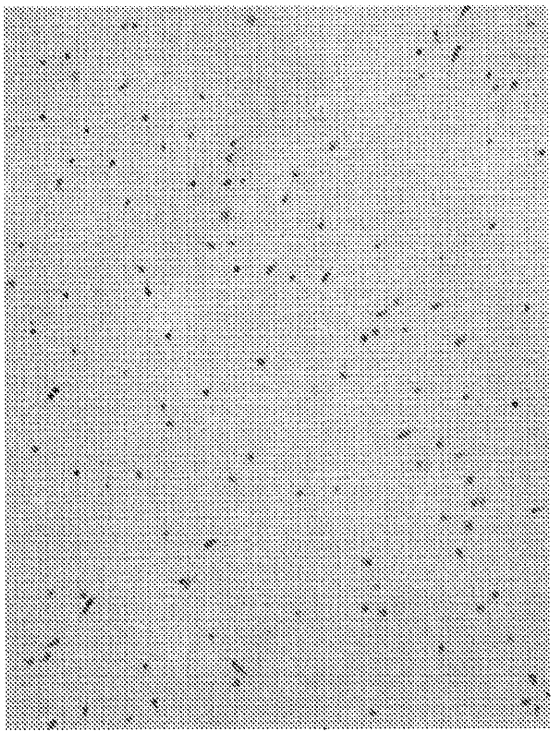


FIG. 2B

FIG. 3

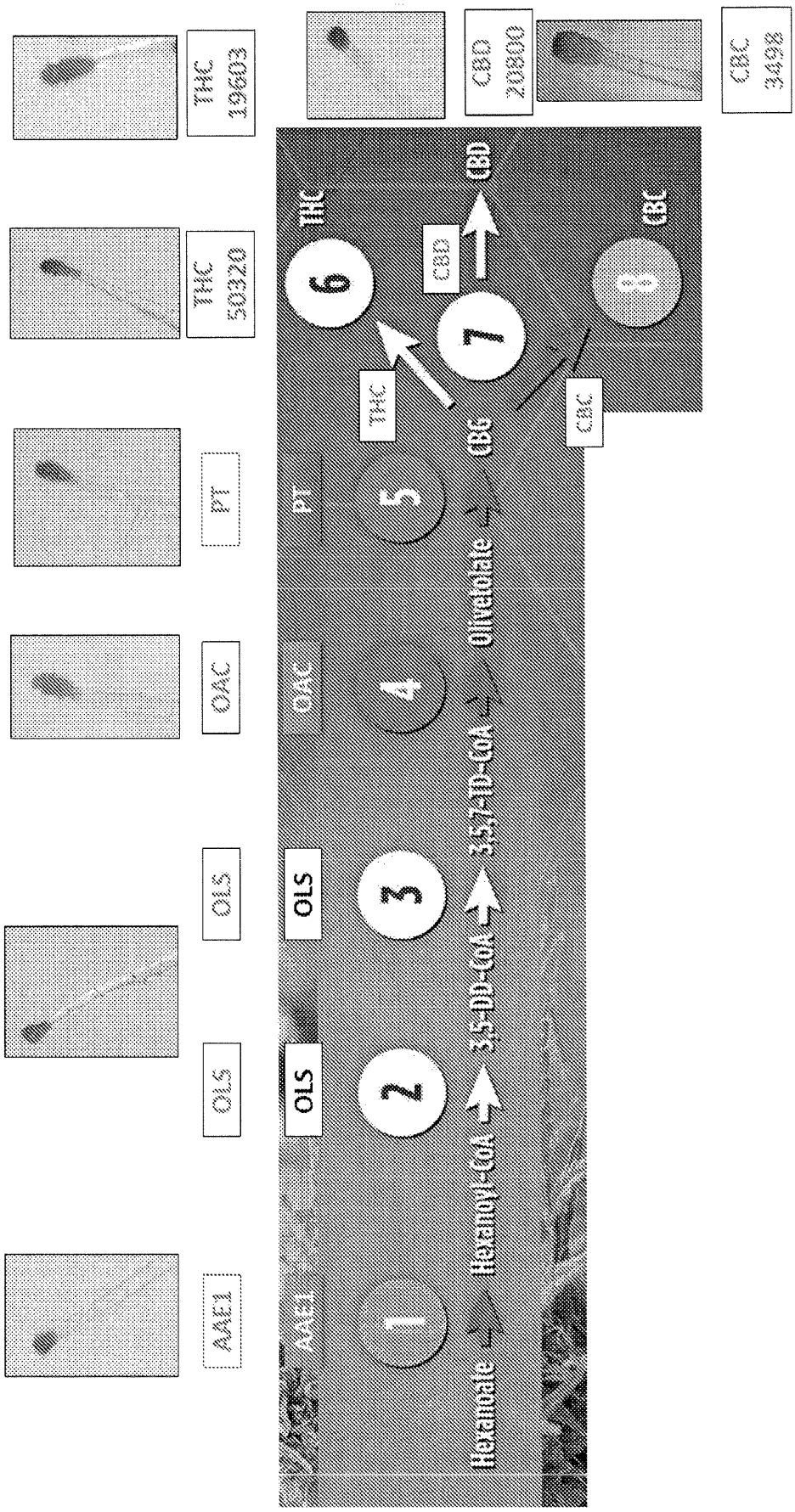

Hexanoic
AAE1
1
OLS
2
OLS
3
OAC
4
PT
5
6
7
THC
CBD
CBC
Hexanoyl-CoA
3,5-DD-CoA
3,5,7-TD-CoA
Olivetolic
OAC
OLS
PT
THC
CBD
CBC
THC 19603
THC 50320
CBD 20800
CBC 3498

FIG. 4A


Start of transcription
ATG
TATA
Box
CAMON
CAMON
CAMON
CAMON

FIG. 4B

