

가

1. 12~17%
 1
 가 CA3
 (pyramidal neuron)가
 가 4
 (posttraumatic stress disorder :
 PTSD)
 5
 CA3
 (dentate gyrus) adult neurogenesis
 2,5,6
 7
 가

2. 1950
 iproniazid 가
 (monoamine oxidase inhibitor: MAOI)
 1950~1960 (tricyclic
 antidepressant: TCA) chlor-
 promazine
 (selective
 serotonin reuptake inhibitor: SSRI) fluoxetine
 1970 1987

venlafaxine
 (serotonin and nore-
 pinephrine reuptake inhibitor: SNRI), bupropion
 (dopamine
 and norepinephrine reuptake inhibitor: DNRI)
 1~3 , MAOIs, TCAs, SSRIs,
 1-
 5-HT2 가
 (neurotransmitter receptor down-regulation
 hypothesis) 8
 5-HT2 trazodone
 nefazodone phenylpiperazine
 5-HT2
 serotonin
 antagonism and reuptake inhibitor (SARI)
 2
 가

serine mirtazapine mian-
 5-HT2 buspirone
 5-HT1A
 cAMP G-
 rolipram cAMP
 가 9
 5-HT2 2
 가
 5-HT1A
 tianeptine
 (serotonin reuptake enhancer:
 SRE) SSRI
 (novel antidepressant)
 가

cortisol
 dexamethasone cortisol

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가 , BDNF 가
Tianeptine
가 (hypo-
thalamic-pituitary-adrenal: HPA)
가 (paraven-
tricular nucleus: PVN)
(corticotropin releasing factor: CRF) mRNA
가 ,¹⁰

BDNF 가
BDNF
, BDNF (blue
gene) CREB
Stahl 가

HPA
HPA

2) BDNF
BDNF neurotrophin-3(NT3), Neurotrophin-
4/5(NT4/5) (nerve growth
factor: NGF)

3. BDNF

1) BDNF

BDNF trkB
MAP kinase pathway
BDNF

cAMP, phosphatidylinositol,
가

forced swim test
learned helplessness test¹⁷
BDNF
가¹⁸ SSRI BDNF
가 BDNF

cAMP¹¹⁻¹³ SSRI
cAMP response element binding
protein(CREB) 가^{14,15}

BDNF NT 가
CA3
¹⁹ CA3 (granular
cell) BDNF²⁰

MAOI tranylcypromine, SSRI fluoxetine
sertraline, TCA desipramine,² 5-
HT2 mianserine
가

PTSD²¹
BDNF

lithium (electroconvulsive seizure:
ECS) CREB
morphine, cocaine, haloperidol
CREB CREB
가

BDNF
tianeptine 가²² CA3

brain-derived neurotrophic
factor(BDNF) tyrosine kinase
B(trkB)

4. Adult neurogenesis

BDNF tykB
BDNF
BDNF
Stahl¹⁶ 가

1) adult neurogenesis
Adult neurogenesis 30 Altman Das
(granular cell layer:

GCL) hilus(subgranular zone)
progenitor cell (daughter cell)
GCL

(adult-generated granular neuron)

가
가
가

2
가 Morris water maze training
trace eyeblinking conditioning

precursor
Glucocorticoid
corticosterone

precursor 1 2
가
N-methyl-D-aspartate
(NMDA)

entorhinal cortex
NMDA
glucocorticoid가 precursor
NMDA
glucocorticoid
glutamate

glucocorticoid
glucocor-

ticoid 가
4
cortisol

GCL 가
adult neurogenesis
가

가

cortisol 가 , cortisol
dexamethason cortisol
HVA
adult neurogenesis

adult neurogenesis

2) adult neurogenesis
ECS
neurogenesis 가
가 20~40%

, ECS 50%
MAOI tranylcypromine ,
SSRI fluoxetine ,
reboxetine . Fluoxetine 1
5
, 14 28
가

haloperidol 가
morphine

CA3

neurogenesis

cAMP neurogenesis BDNF 가^{14,38}가
 cAMP BDNF
 progenitor 가
^{39,40}가 , BDNF cAMP CREB
 neurogenesis 가가
 5-HT1A
 fluoxetine neurogenesis
^{41,42}

5.

가
 neurogenesis
 PTSD
 가
 neurogenesis 가
 neurogenesis
 (glial cell) 가
^{43,44} adult neurogenesis

⁴⁵

neurogenesis

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