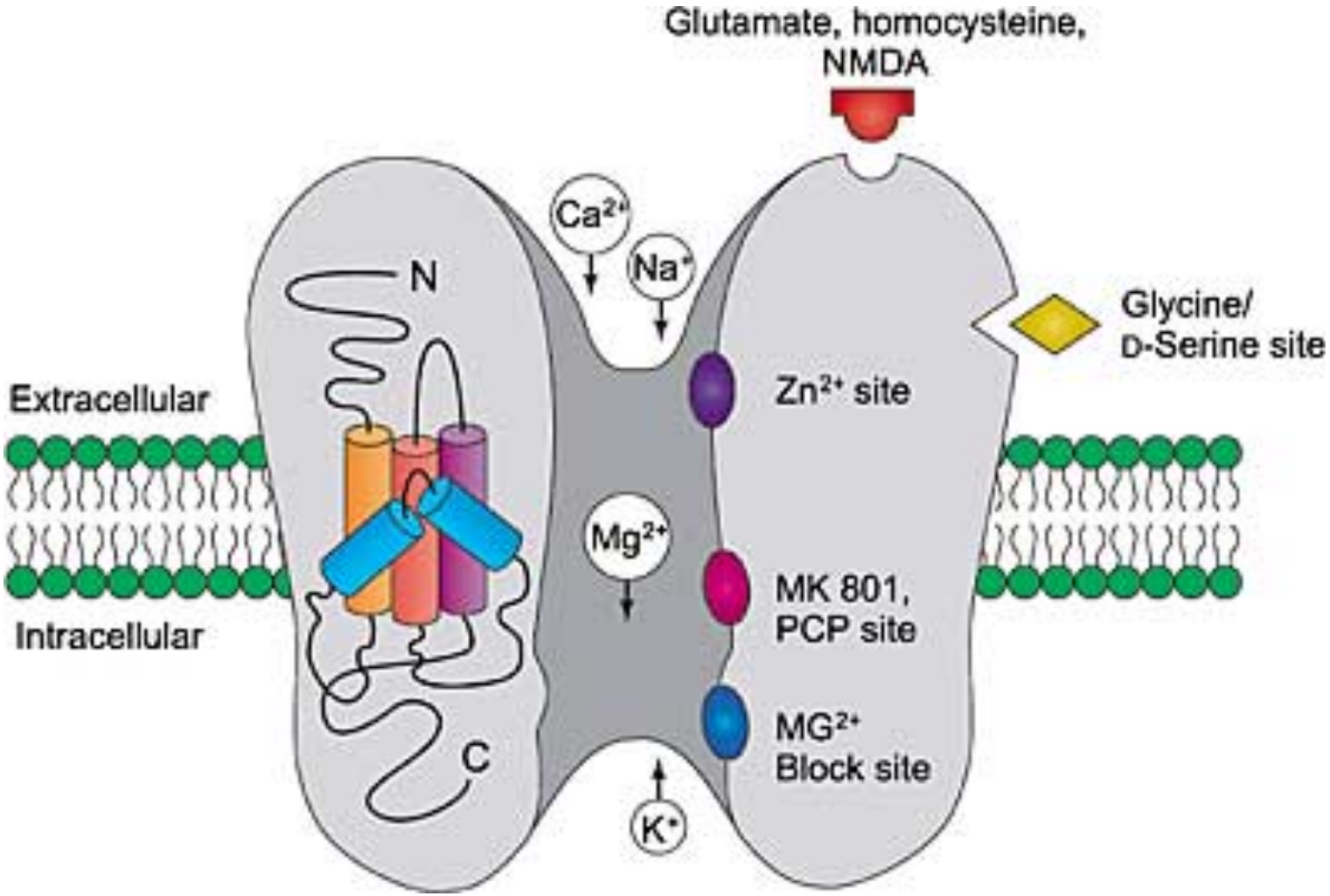
3. GABA Glutamaat, basics + Richard

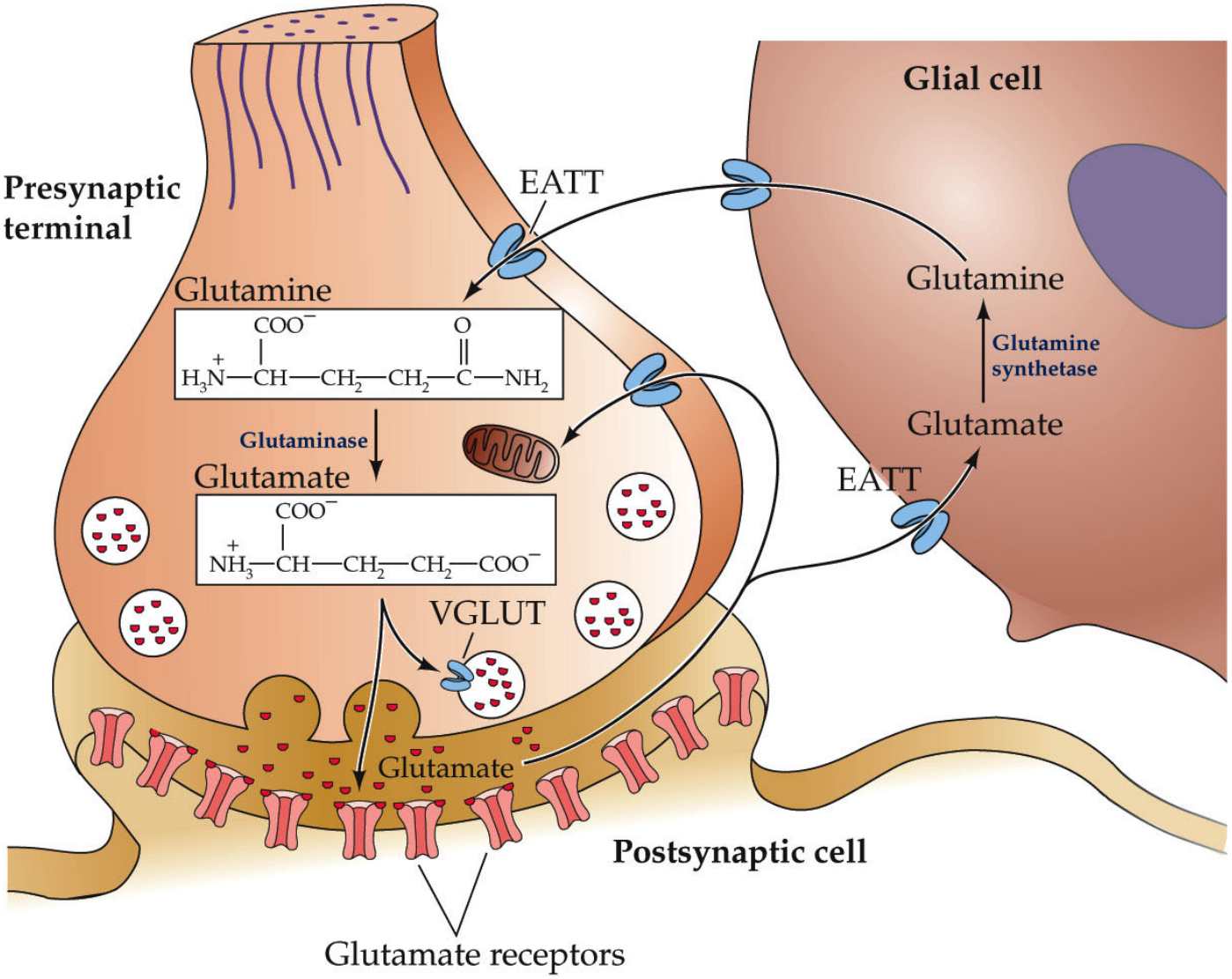
- glutamaat, NMDA, AMPA, mGlu, Kainate
  - (in meer detail)

- Introductie van een basis schema

- Glycine, Serine in het brein
  - (uitkomsten van recent onderzoek)


Glutamate, homocysteine,
NMDA
Ca2+
Na+
N
Glycine/
D-Serine site
Extracellular
Zn2+ site
Mg2+
MK 801,
PCP site
Intracellular
MG2+
Block site
C
K+

Synthese, opslaan in vesicles, heropname, degradatie

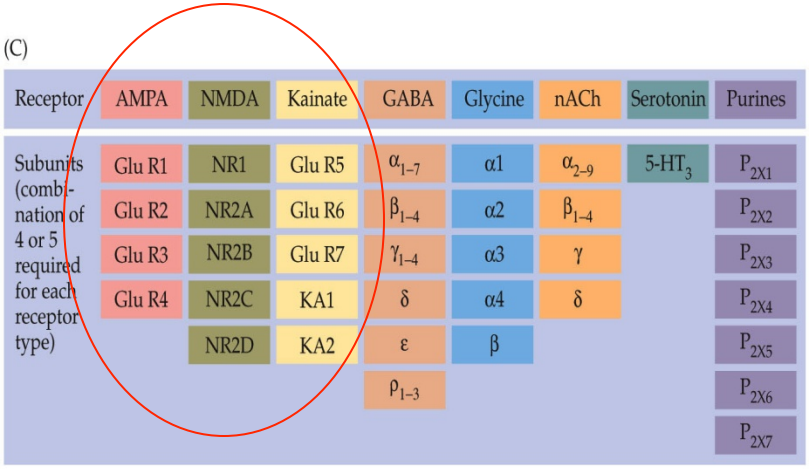


NEUROSCIENCE, Fourth Edition, Figure 6.6

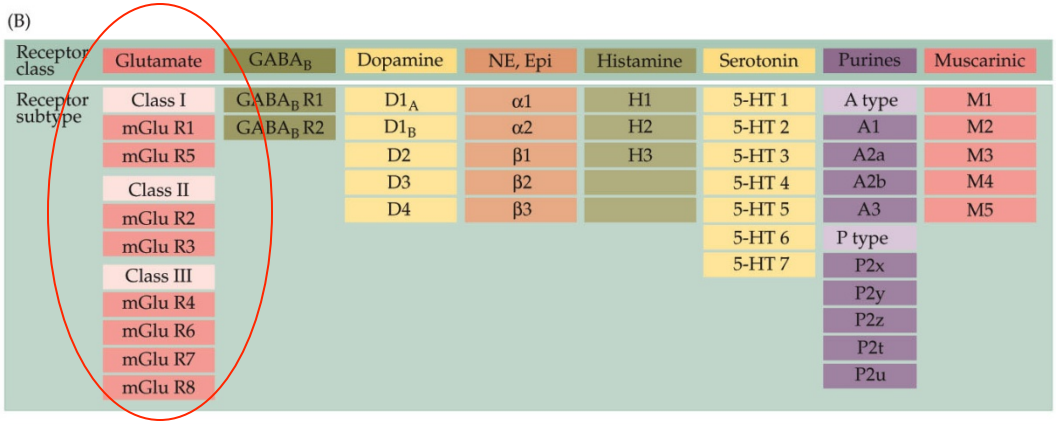
Glutamaat: 2 type receptoren

snel: ion kanaal receptoren (ionotropic)

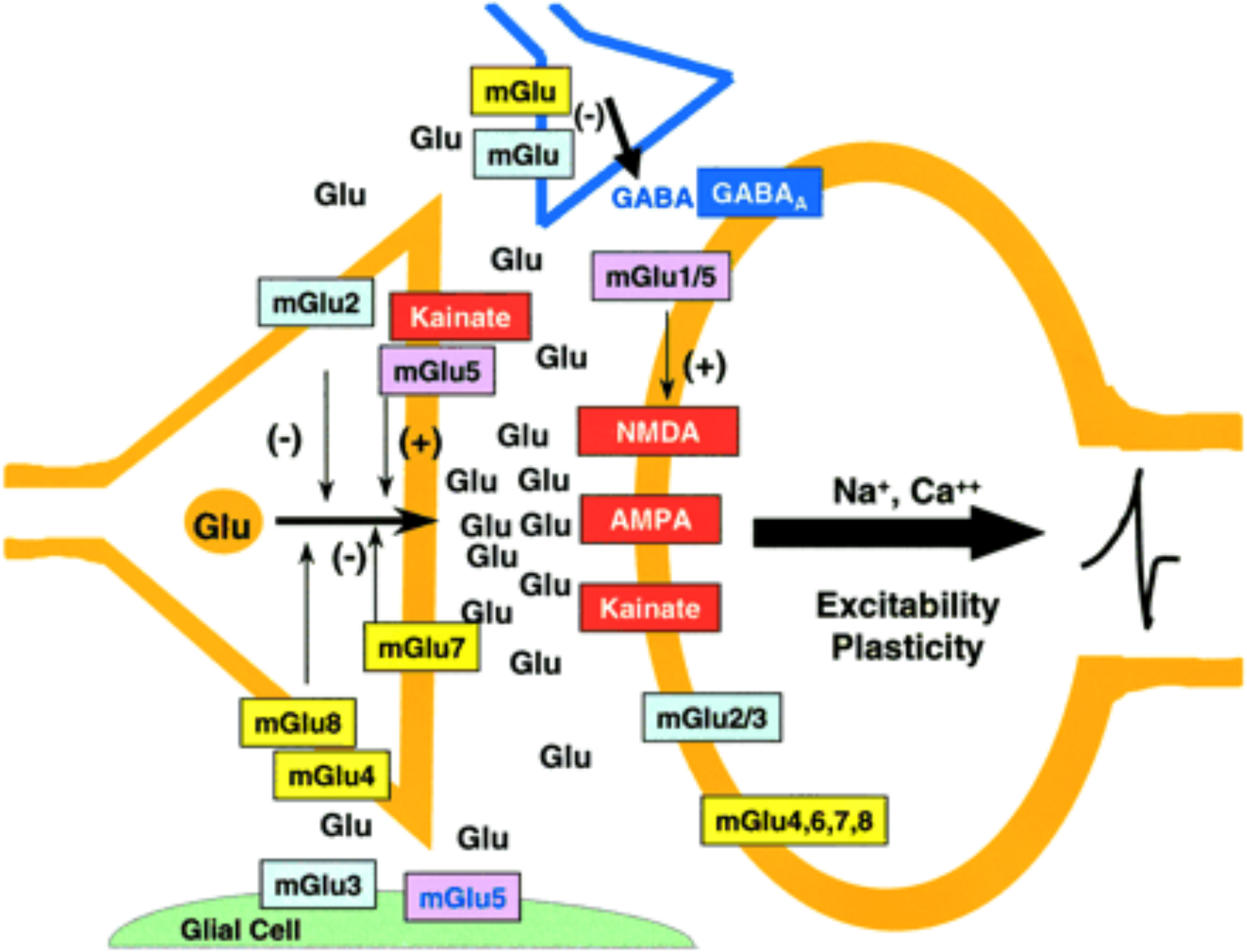
neuromodulatie: G-protein gekoppelde receptoren (metabotropic)



NEUROSCIENCE, Fourth Edition, Figure 6.4 (Part 3)



NEUROSCIENCE, Fourth Edition, Figure 6.5 (Part 2)


mGlu
Glu
mGlu
(-)
GABA
GABA$_A$
Glu
mGlu1/5
mGlu2
Kainate
Glu
mGlu5
(+)
(-)
(+)
Glu
NMDA
Glu
Glu
Glu
Glu
AMPA
Na$^+$, Ca^{++}
Glu
(-)
Glu
Glu
Kainate
Excitability
Plasticity
mGlu7
Glu
mGlu8
mGlu2/3
mGlu4
Glu
Glu
mGlu4,6,7,8
mGlu3
mGlu5
Glial Cell

Schizophrenia drug says goodbye to dopamine

Daniel R Weinberger

A drug that activates glutamate receptors offers promise for a new class of anti-psychotic therapeutics and sheds light on the pathophysiology of this devastating disease (pages 1102–1107).