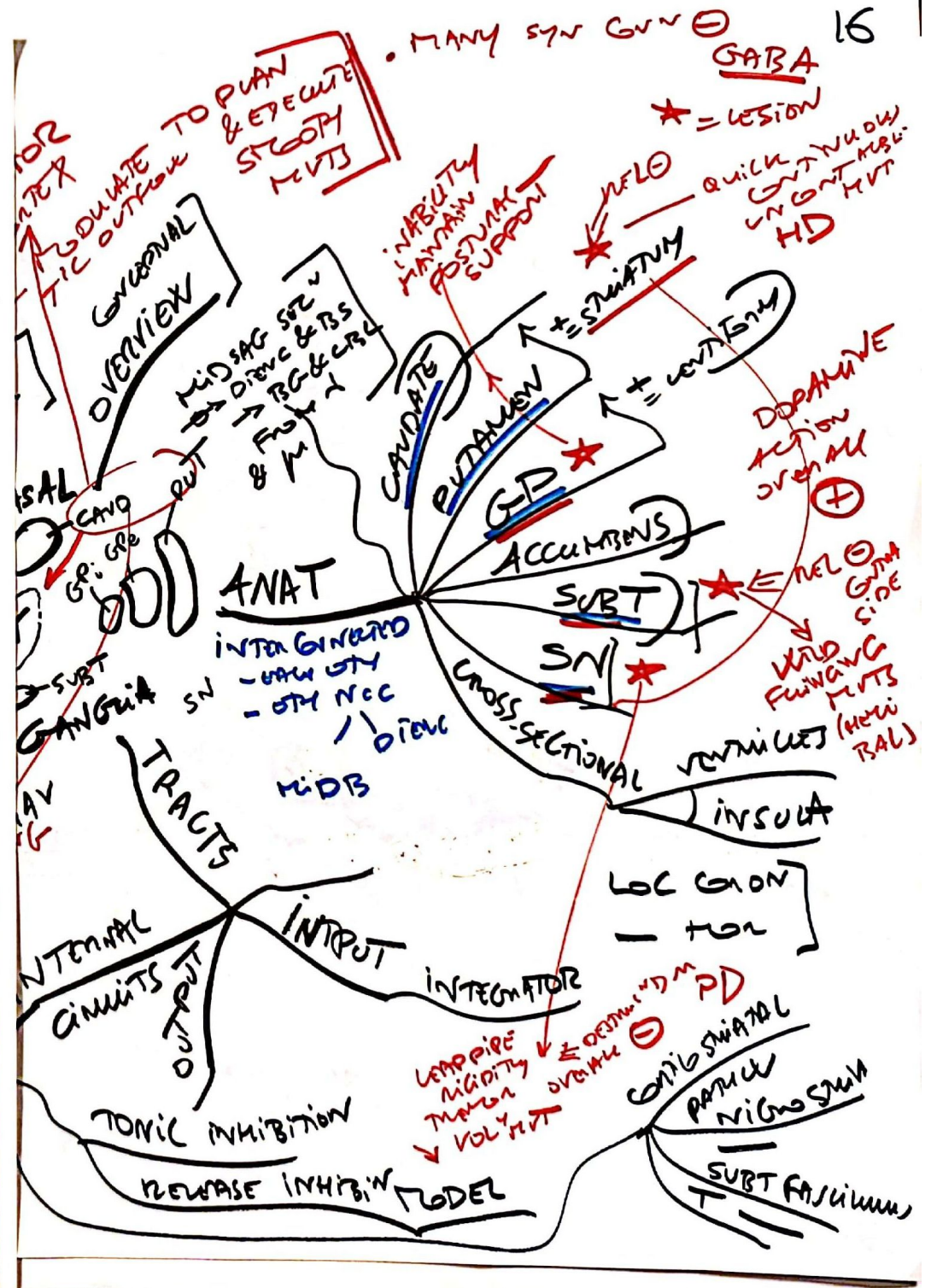
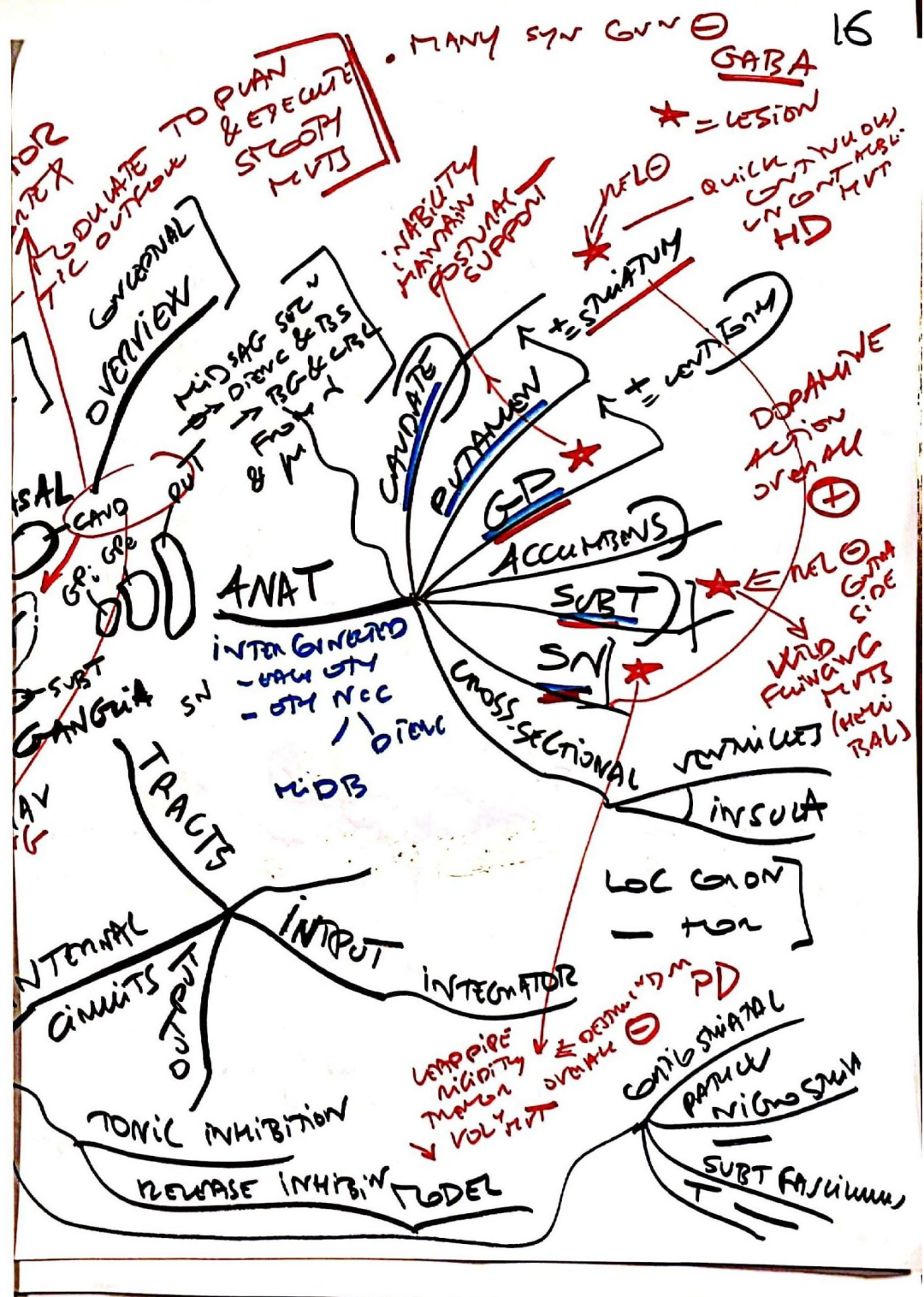


# ~~Basal~~ BASAL GANGLIA

22 pages  
+6  
28

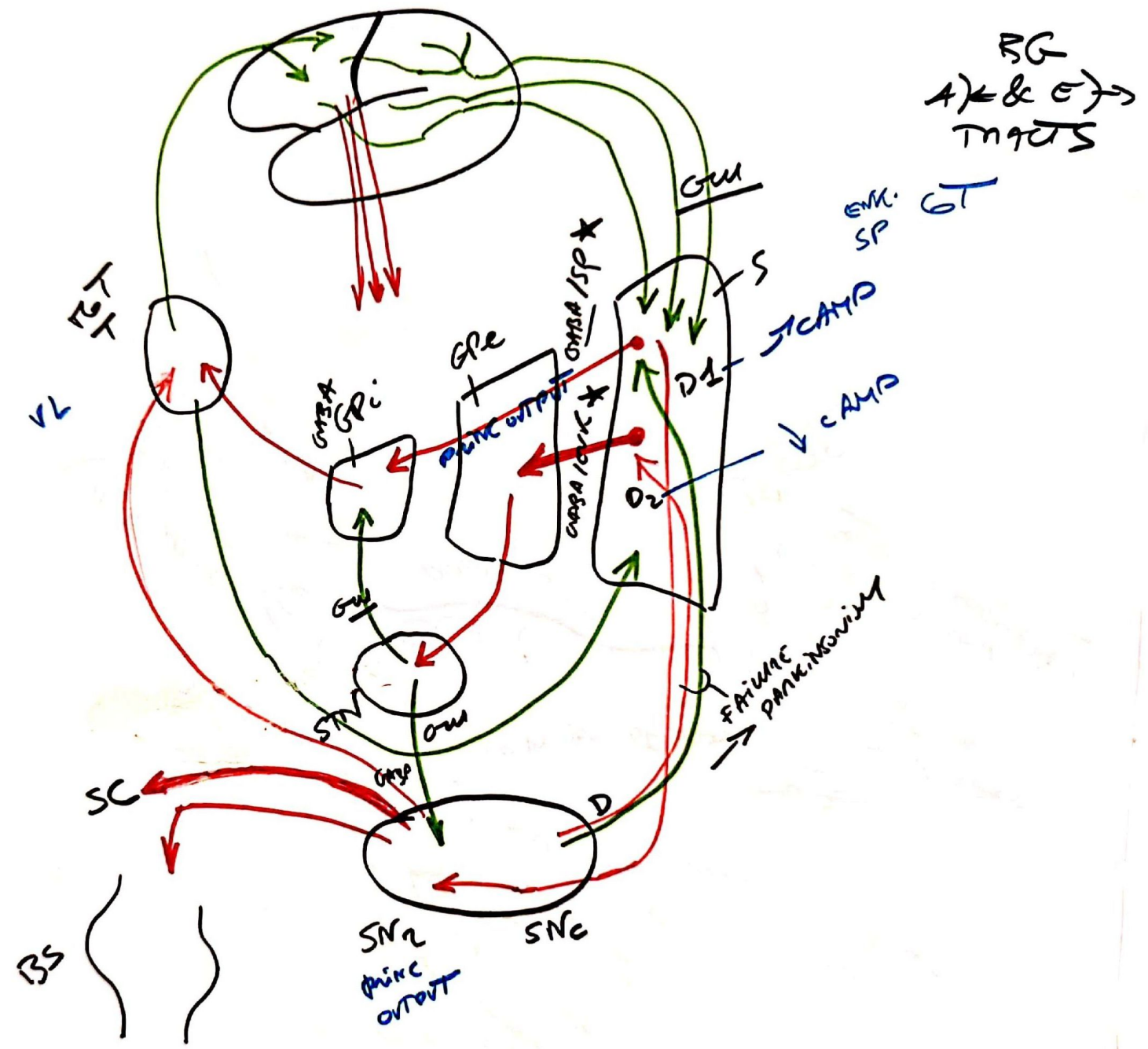


# CONTENTS, SUMMARY & OVERVIEW



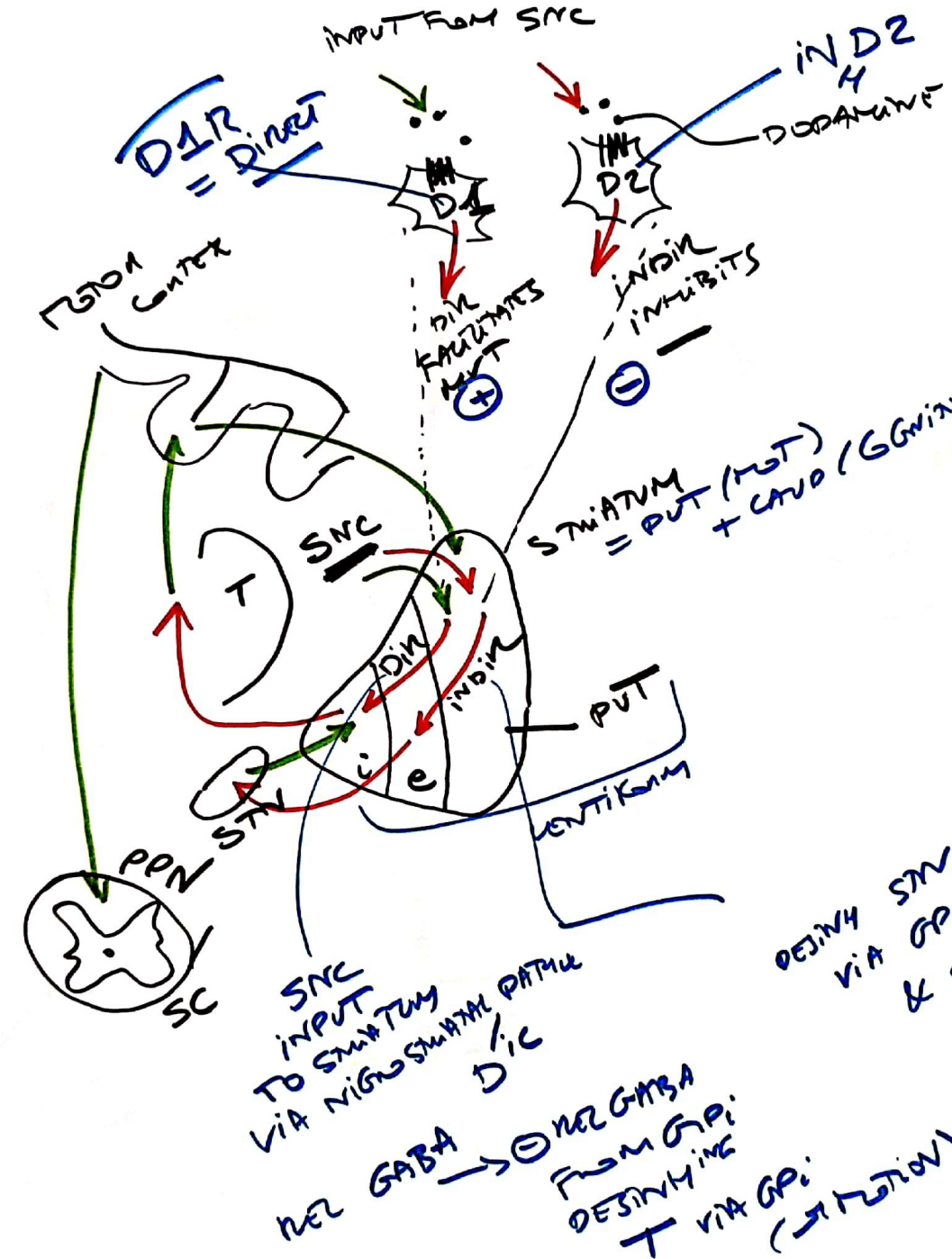








D BINDS TO  
 D<sub>1</sub> ⊕ ING ⊕ P  
 & D<sub>2</sub> ⊖ ING ⊖ P



INHIBITORY STIMULATION

- BG VOLUNTARY & ADJUSTING POSTURE

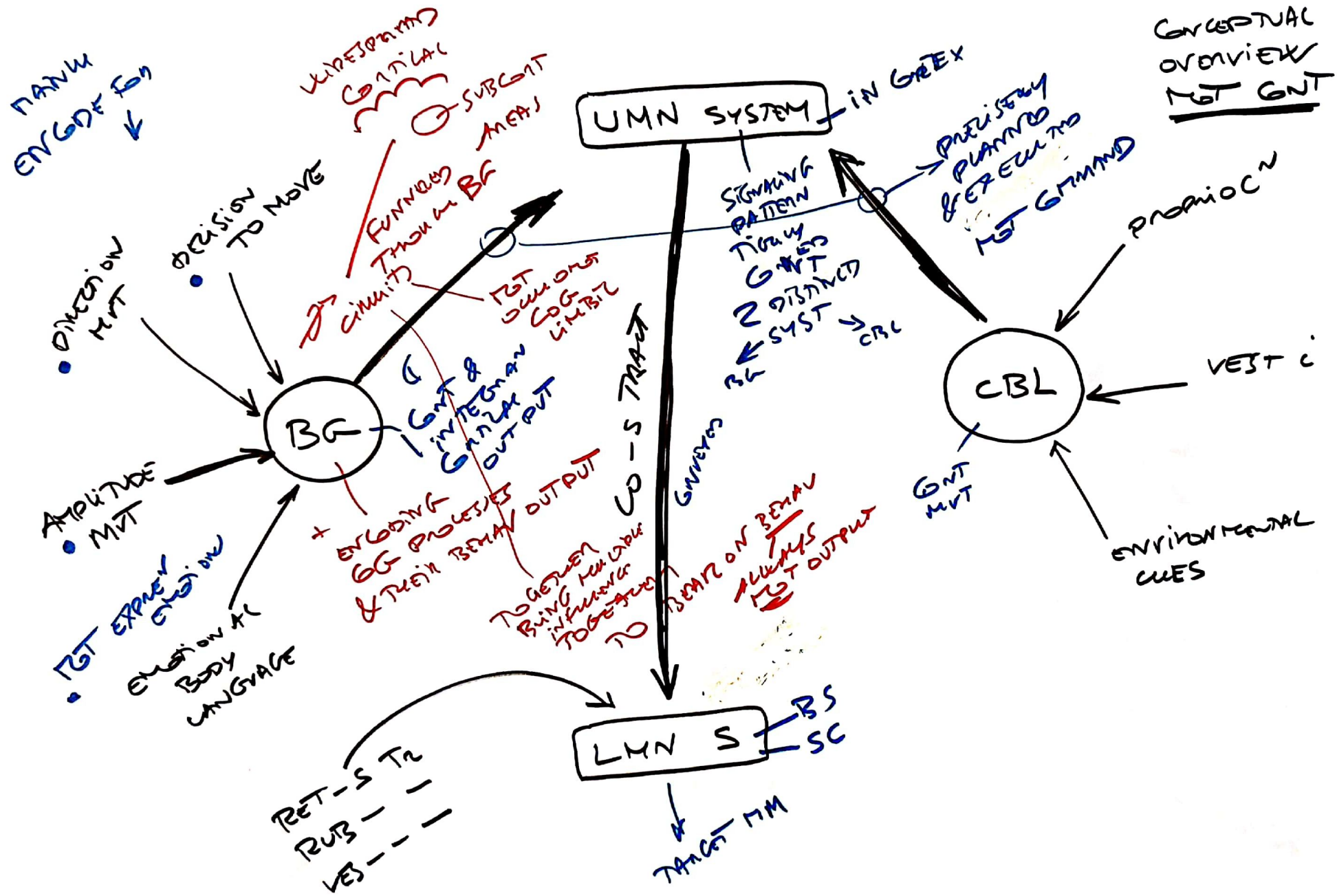
- PROVIDES CRUCIAL INPUT, PROVIDES ⊖ FB TO ⊖ TO MODULATE MVT

DESIGNING STN VIA GPe ⊖ & STN ⊕ GPi ⊖ (↓ MOTION)

NEUR GABA → ⊖ NEUR GABA FROM GPi DESTINING T VIA GPi (↓ MOTION)

NEUR STN THROUGH GPi

CONCEPTUAL OVERVIEW  
NOT GNT

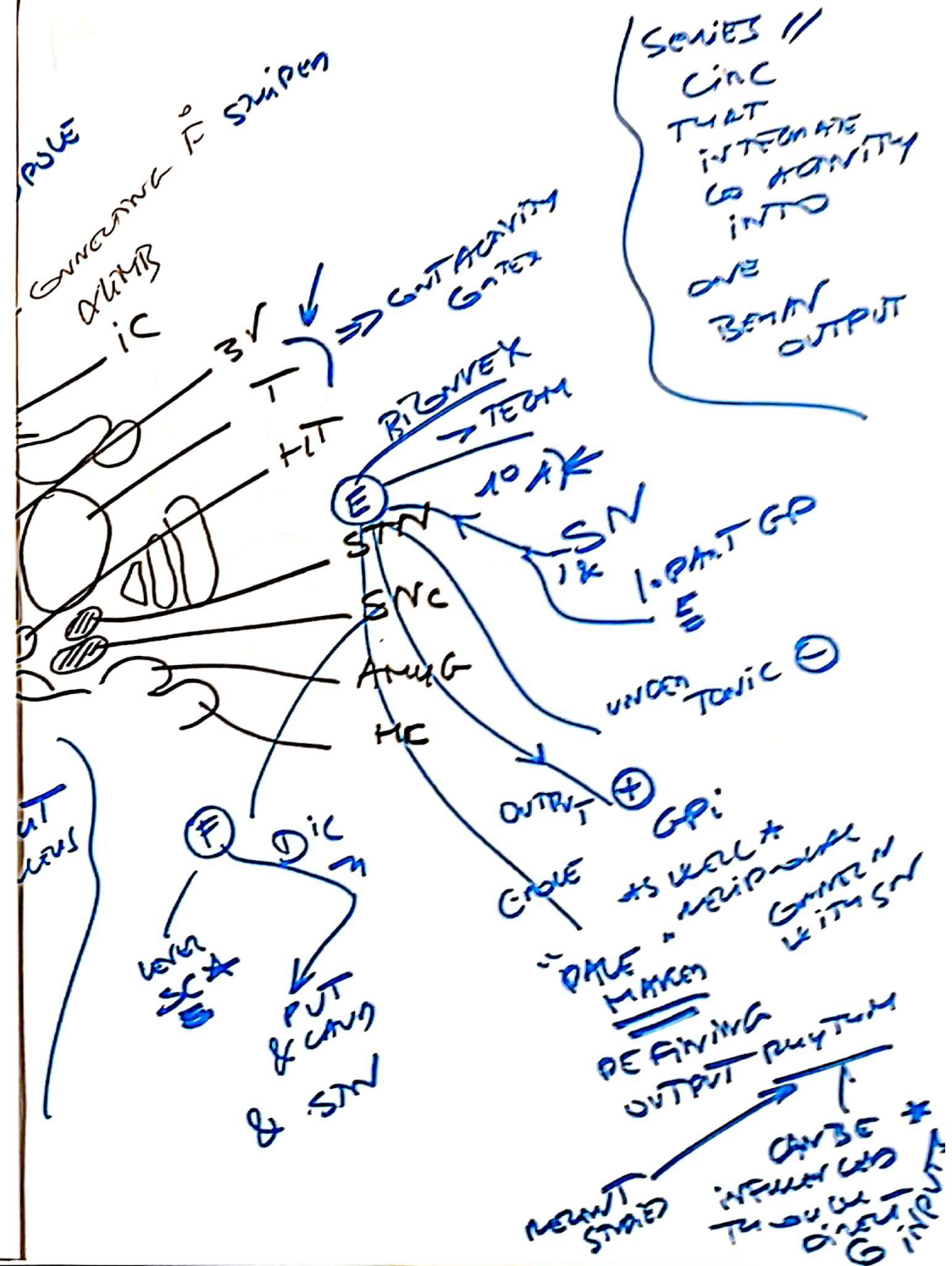


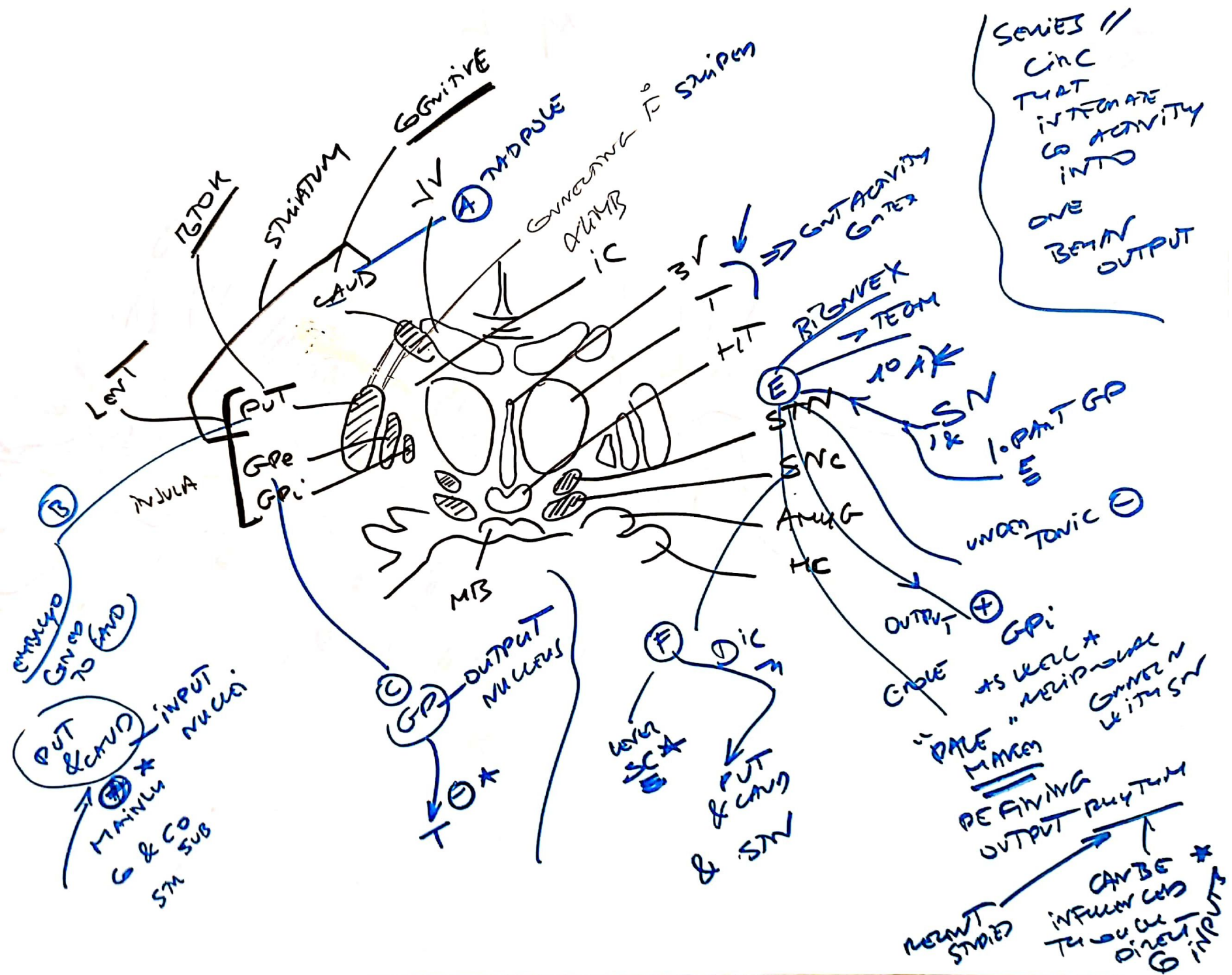
NEURAL STATE THROUGH DIRECTIONAL INFO



# ANATOMY

~~GENETICALLY ORIENTED ANALYSIS OF BS~~



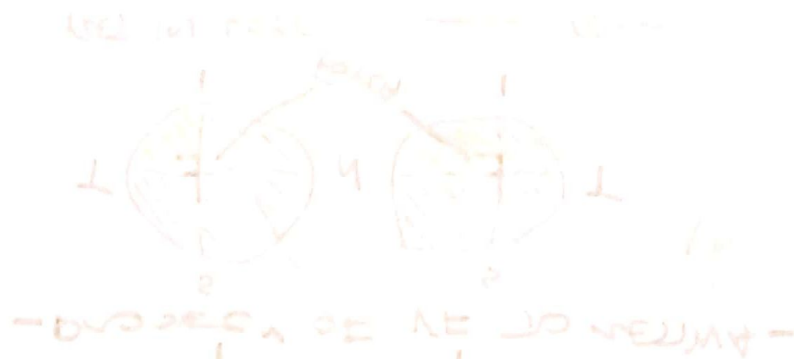


SERIES //  
CIRC  
THAT  
INTEGRATE  
GO ACTIVITY  
INTO  
ONE  
BRAIN  
OUTPUT





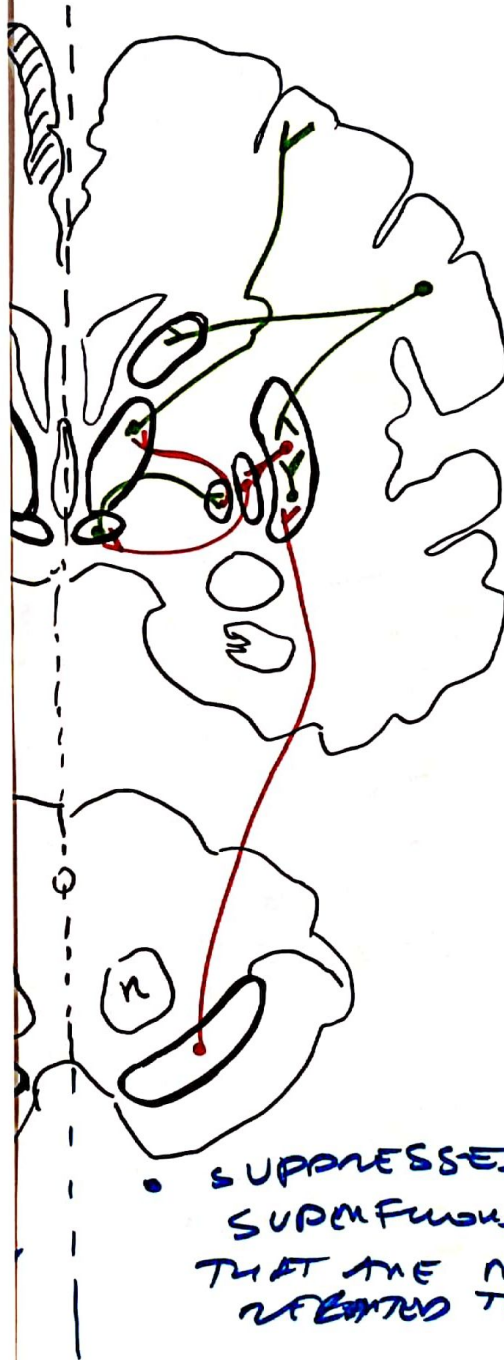
3  
CAVD





TRACTS

INDIRECT



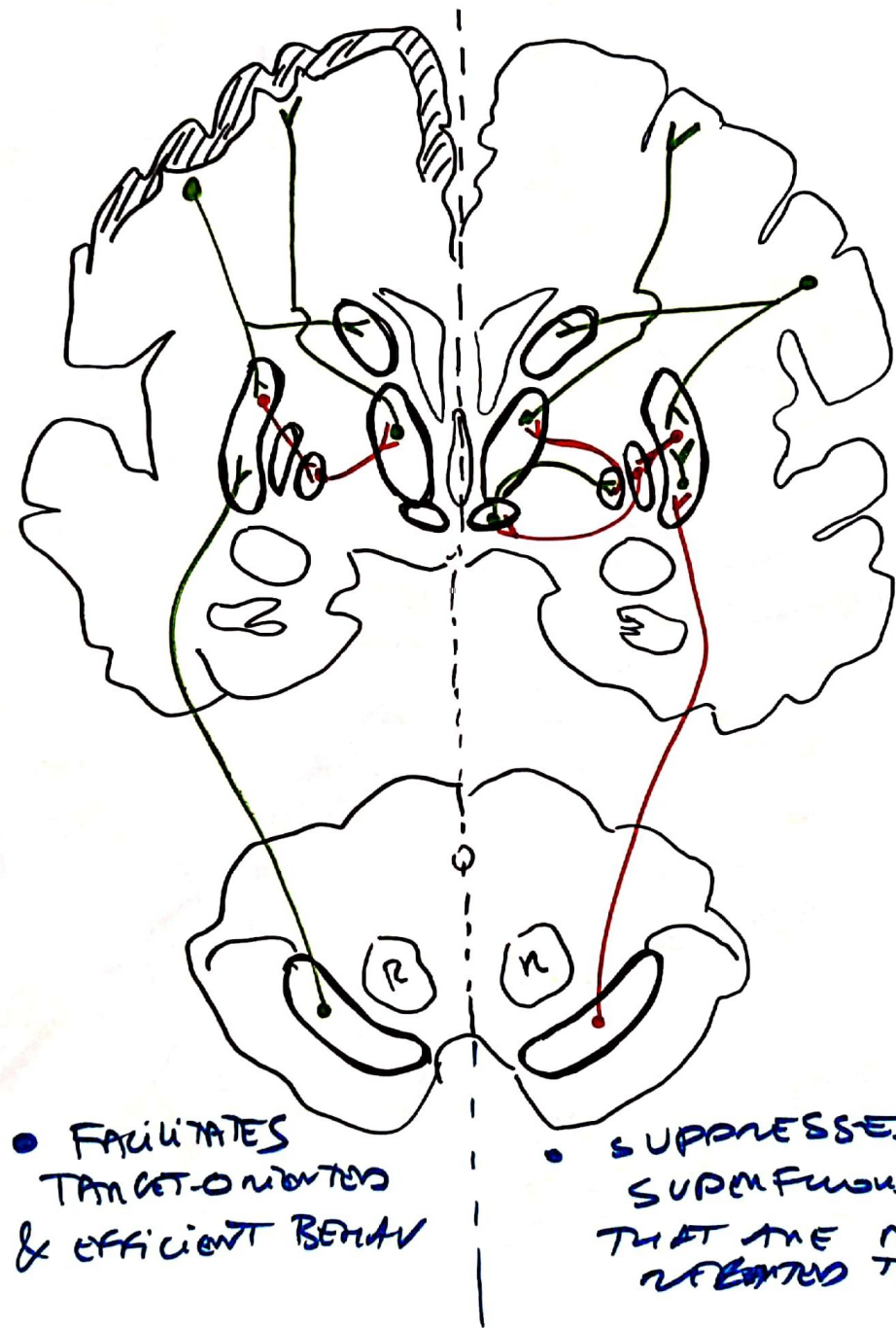
- SUPPRESSES SUPERFLUOUS BEHAVIORS THAT ARE NOT RELATED TO TARGETED BEHAVIOR

8  
WITH A DIAG  
FOR INTERNAL  
CIRCUITS OF BG:  
DIR & INDIR  
PATHWAYS



|| DIC SIGNALING  
NET  $\Rightarrow$   
IS TO  $\rightarrow$   
CRITICAL  
ACTIVITY  
(D = MOVEMENT)

DIRECT INDIRECT



• FACILITATES TARGET-ORIENTED & EFFICIENT BEHAV

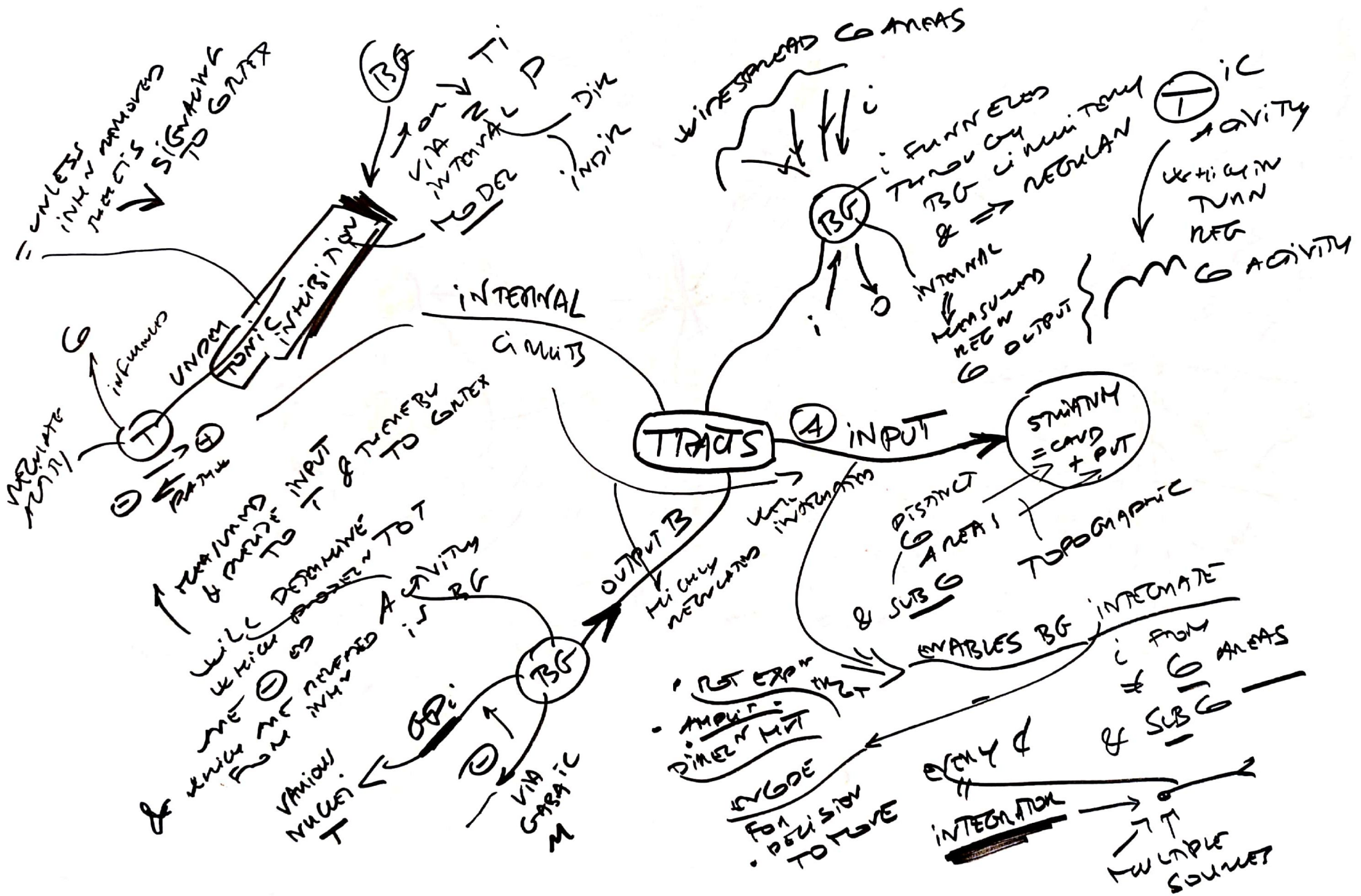
• SUPPRESSES SUPERFLUOUS BEHAV, THAT ARE NOT RELATED TO TARGETED BEHAV

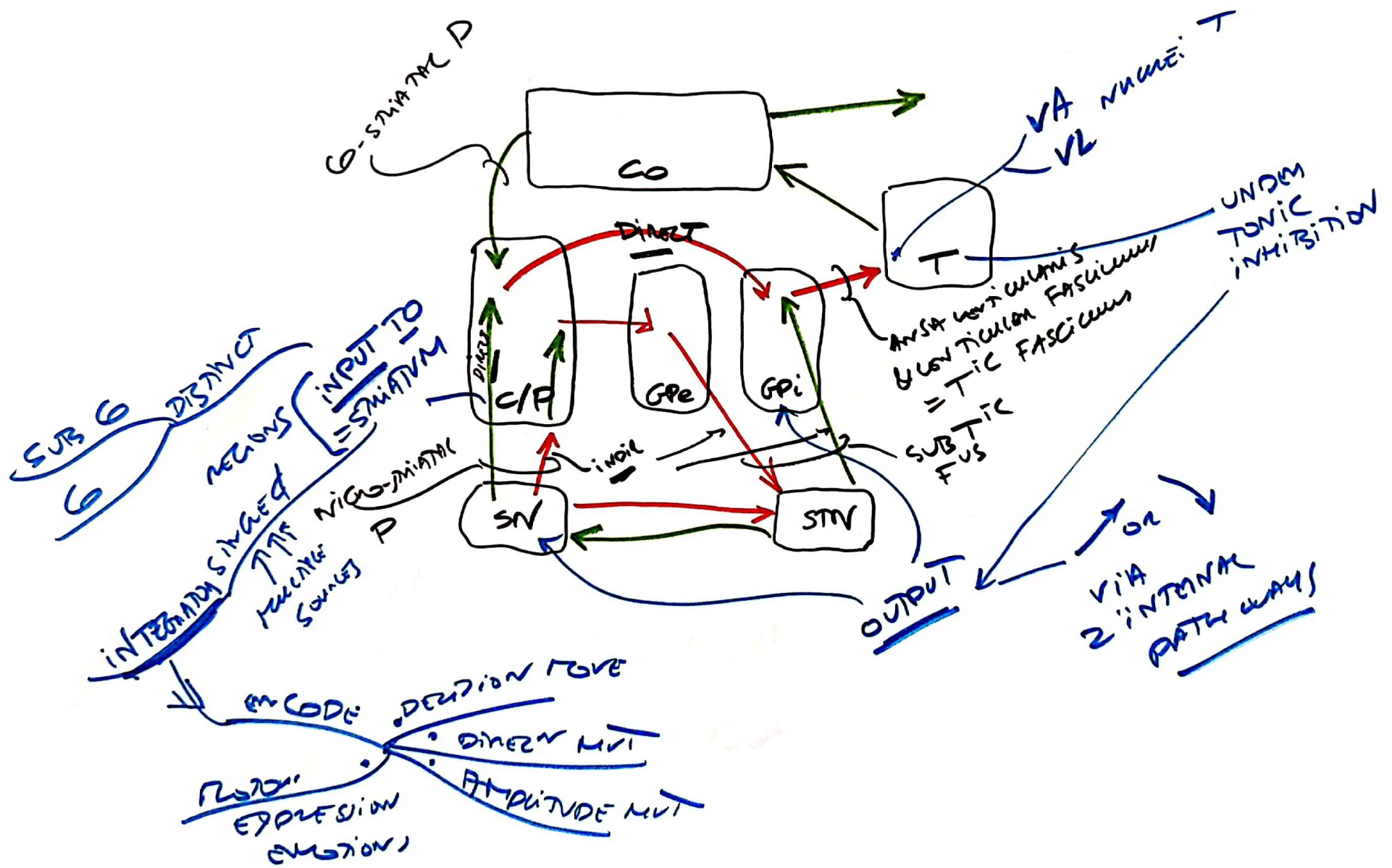
8  
WITH A DIAG FOR INTERNAL CIRCUITS OF BG:  
DIR & INDIR PATHWAYS

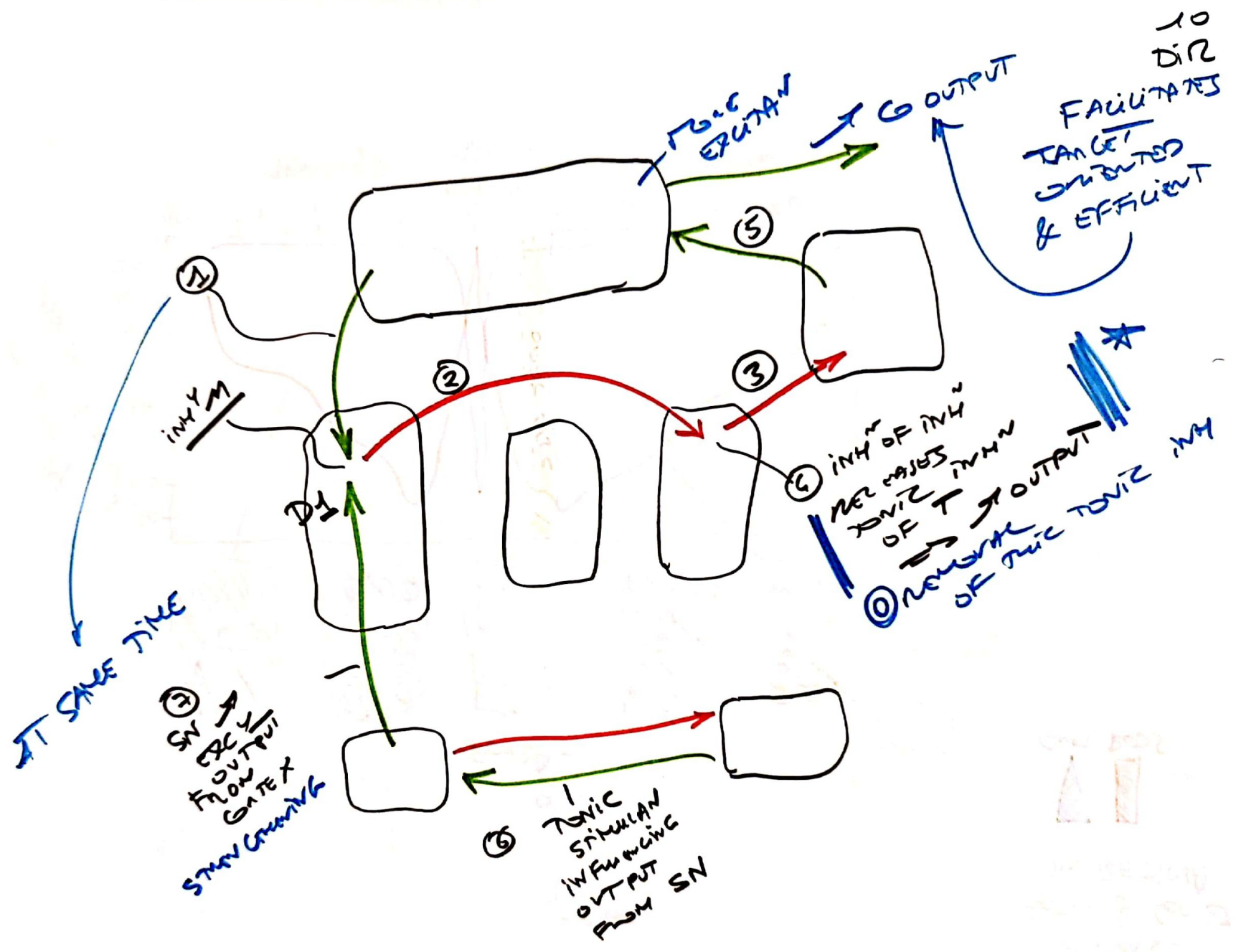
⊖  
⊕

|| DIC SIGNALING NET ⇒ IS TO ↑ CORTICAL ACTIVITY (D = DORSAL)





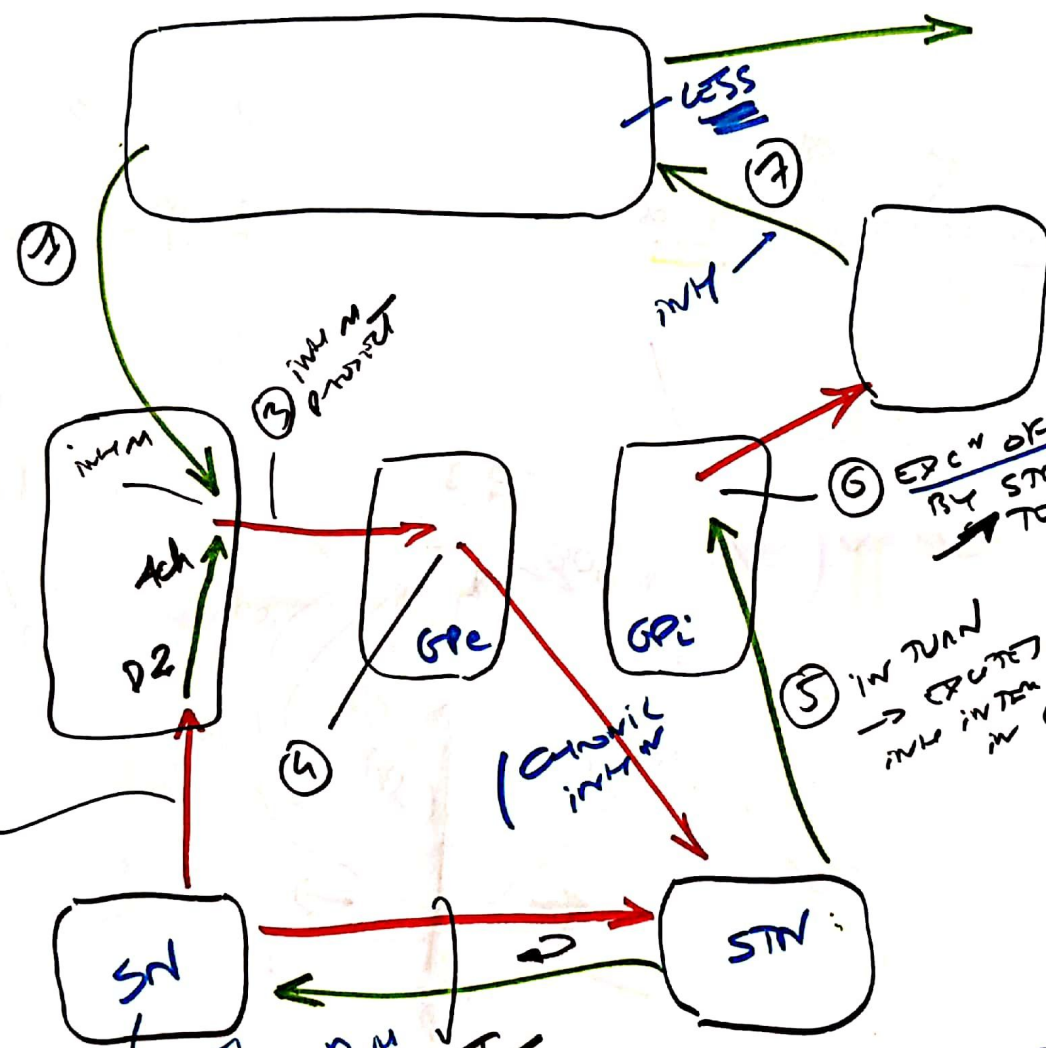






GUNTER BALANCE EFFECT & PUT BRIMCES ON DIN

IMBALANCE → PK  
→ HD



→ INH INH SUPPRESSES SUPERFUSORY ACTIVITY & NOT OUTPUT THAT COMPENS WITH PROPER FAULTY TURNS ON DIN

⑥ EXC OF INH BY STN → TONIC INH T SUPPRESSES G OUTPUT

⑤ IN TURN → EXCET INH IN GPi

STIMULATIONS INH T THROUGH PROSE W EXC Y FROM STN

⇒ CRITICAL STNS TO REVERSE INH IN STN

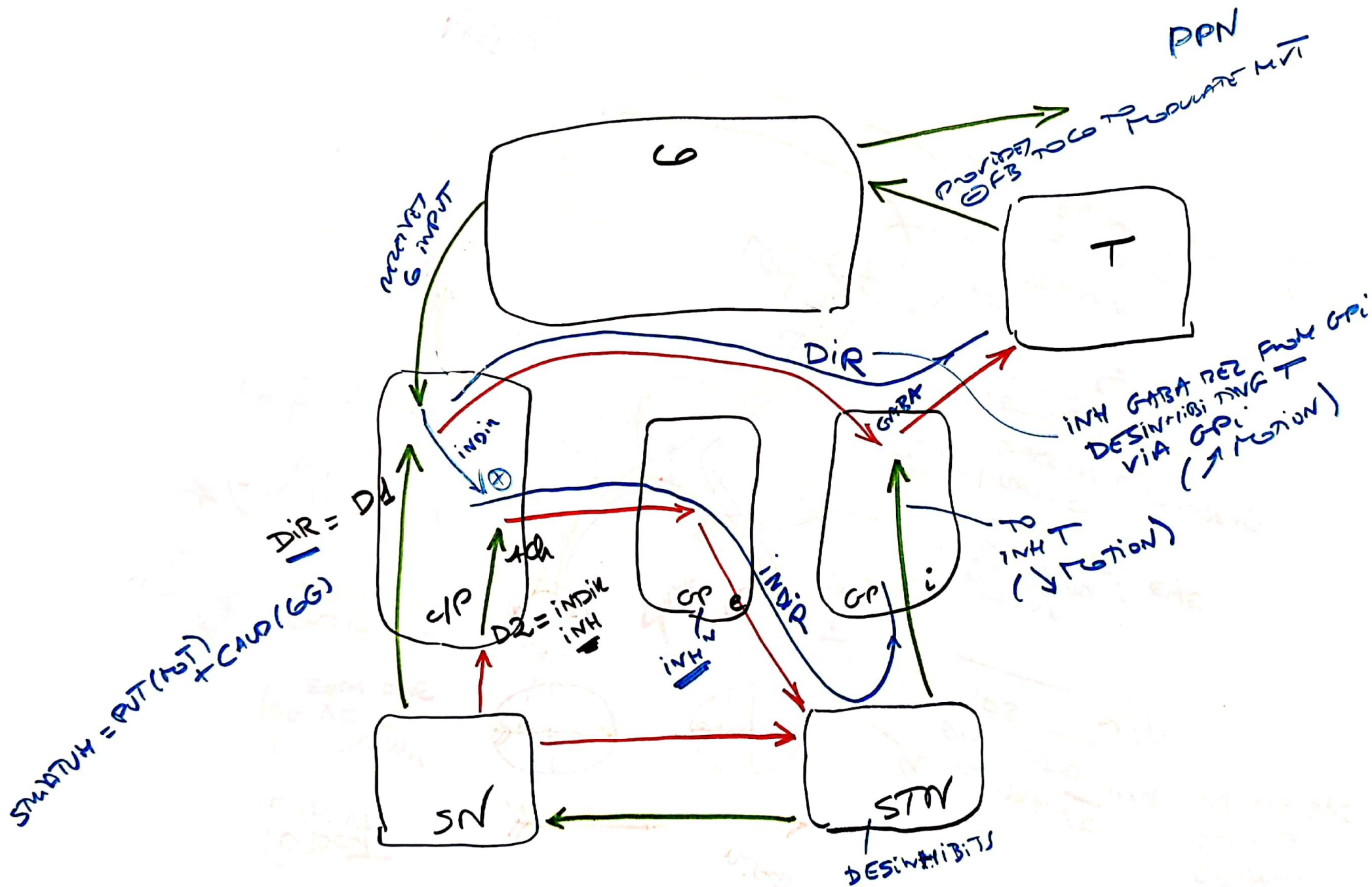
SAME E

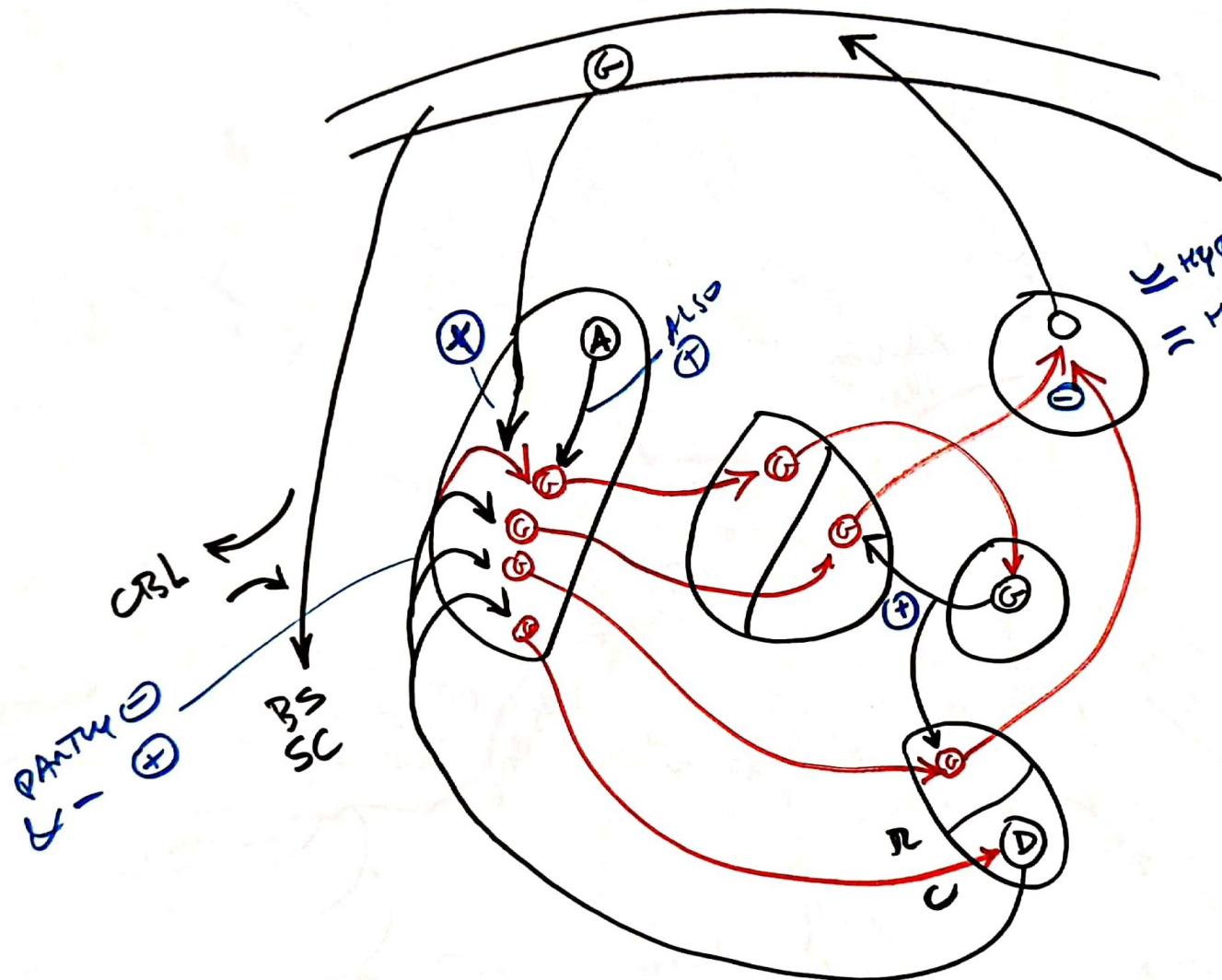
② DIC M INH EXC Y CRODIC INTERM

↳ LKERN CONTRIBUTES PERIODICITY & FREQUENCY TO RHYTHM

↳ CONTRACT

④ IN → SUPP INH EXCESSIVE INH SUPERFUSORY GMP EX INH G OUTPUT AS WELL AS OUTPUT TO T

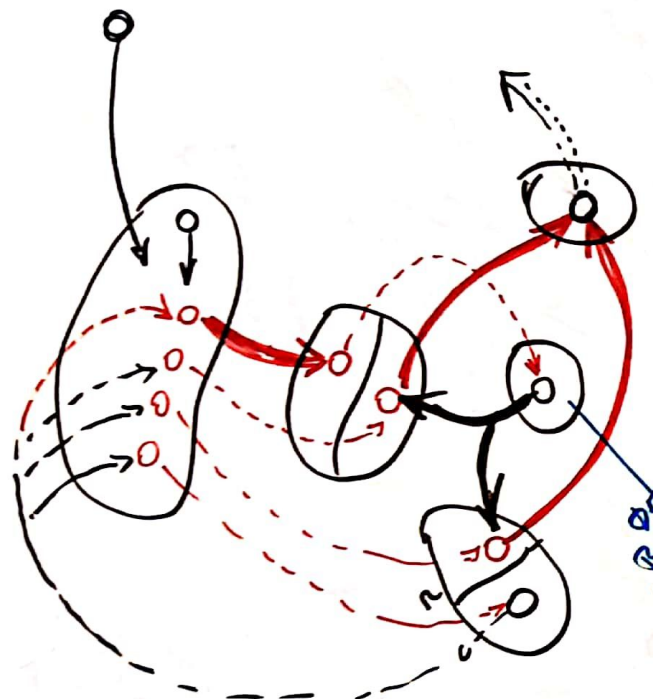




G = GABA  
 A = ACh  
 D = DOPAMINE  
 G = GABA  
 GVT MVT  
 + CBL MVT  
 CST<sub>2</sub> & PGP  
 NCC BS

≡ HYPOTHALAMUS  
 ≡ HYPOTHALAMUS



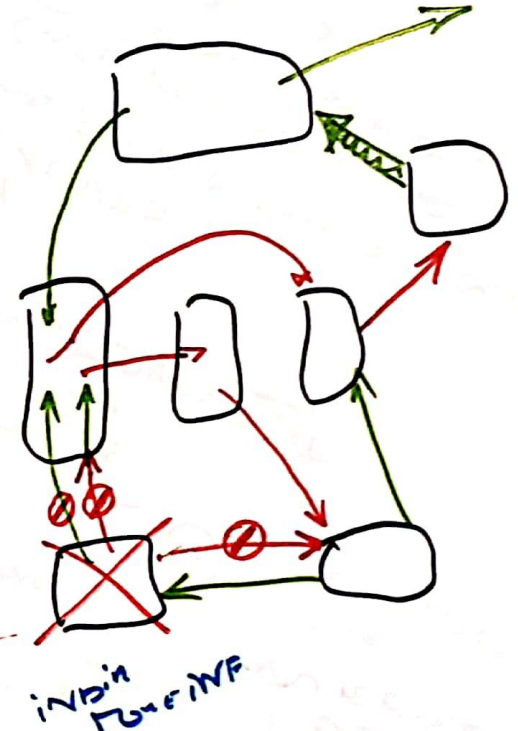
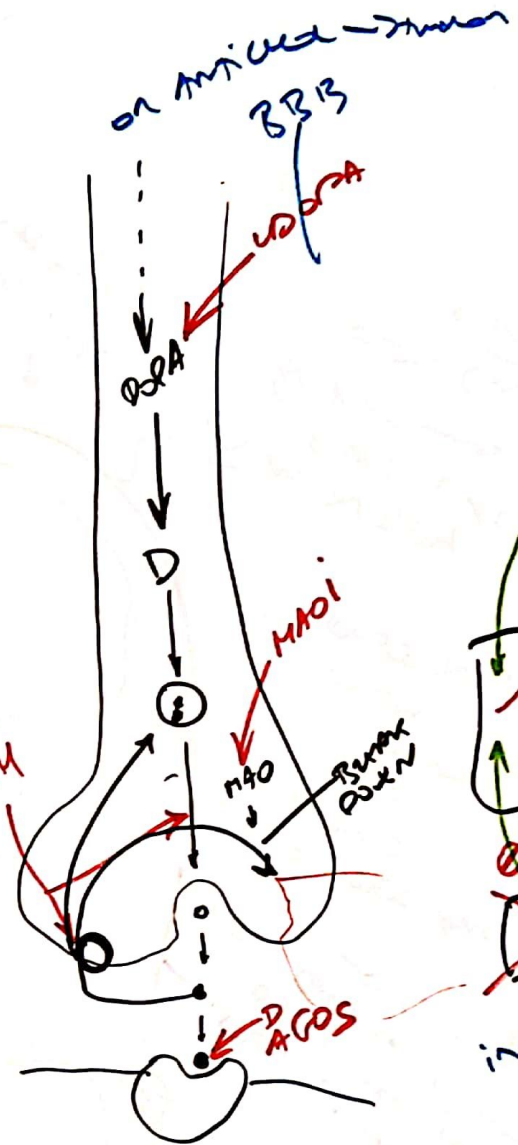
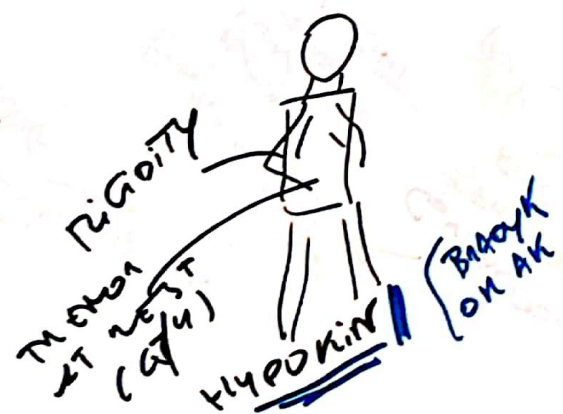


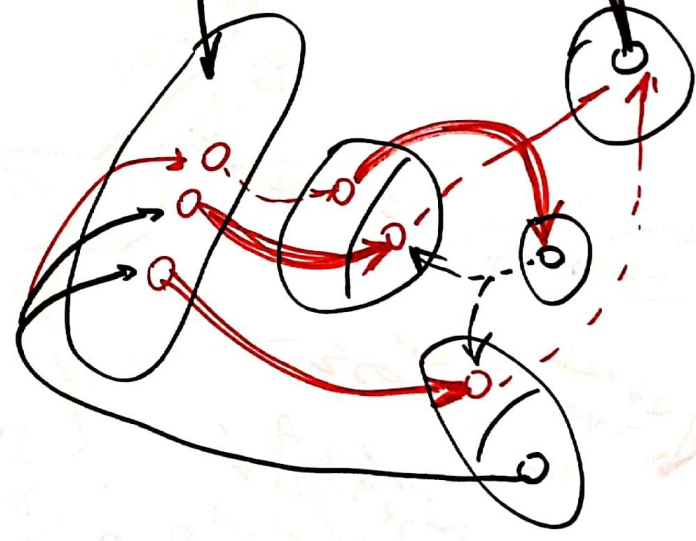
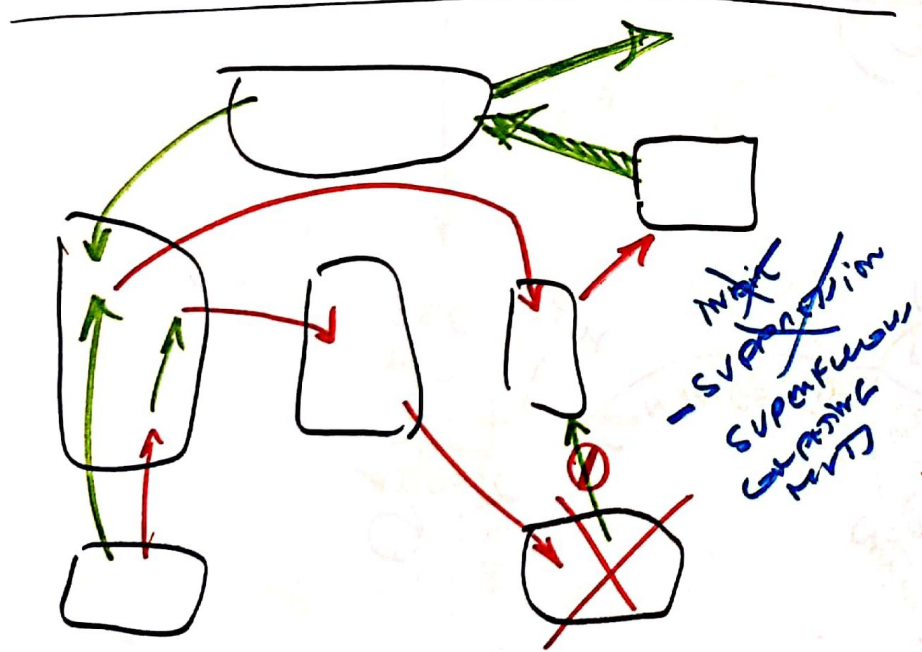
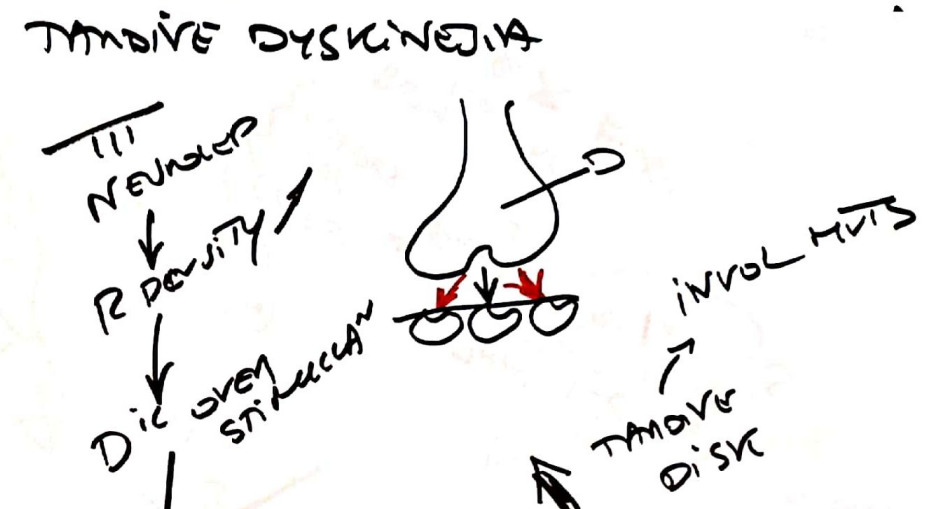
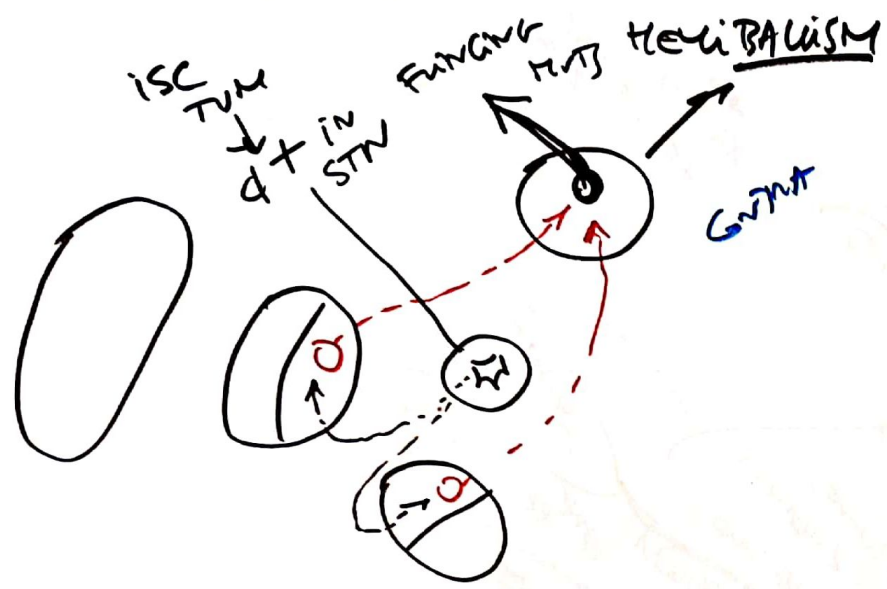
Genet defect  
 TRAUMA  
 i/fm  
 ↓ DEMENTIA  
 POISONING

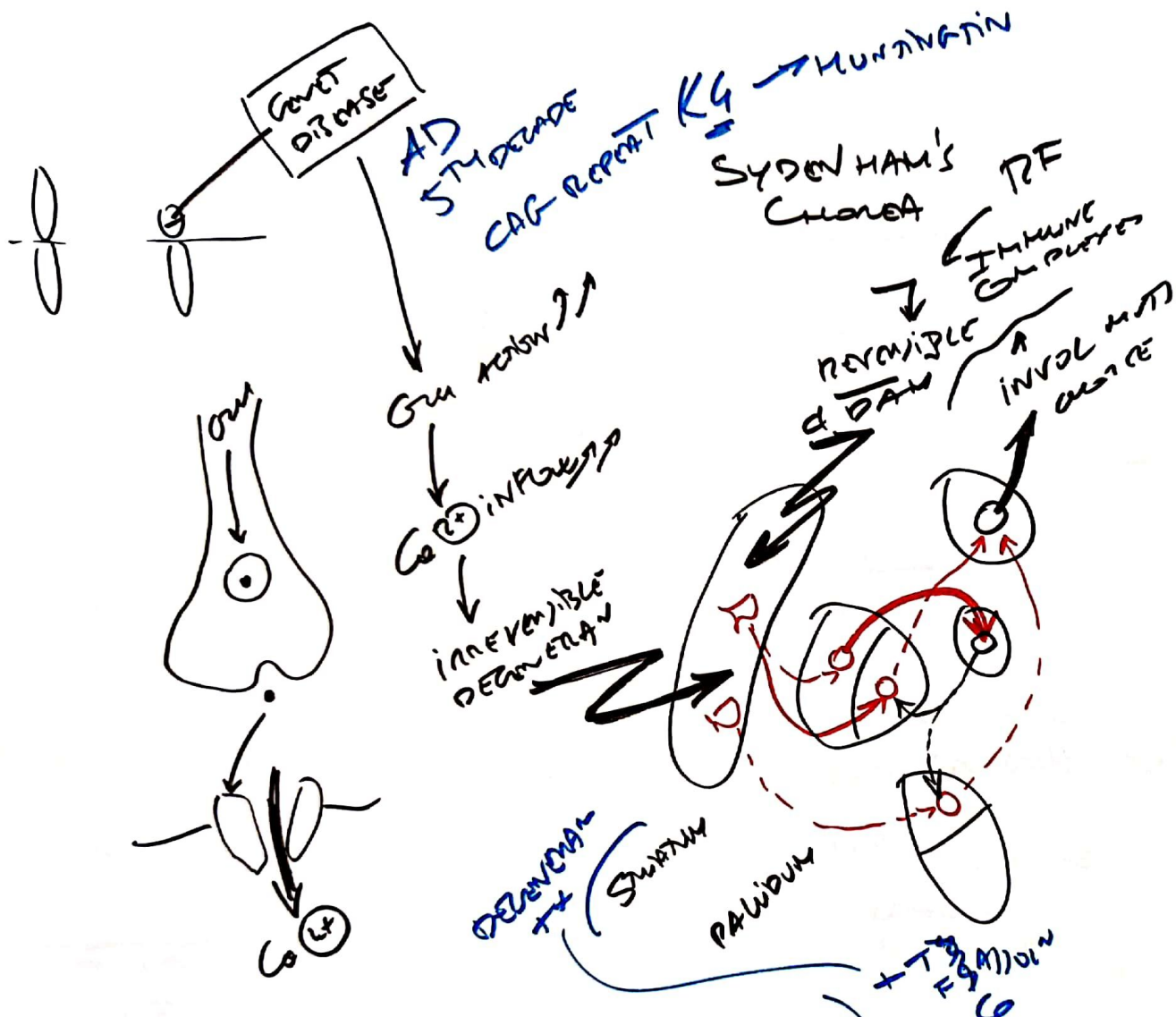
↓  
 C + SN

↓  
 D DEFIC

TRUNCAL RIGID  
 SALIVARY FLOW  
 SUPPRESSED  
 DEPRN  
 QUIET, MUMUR  
 SPEECH  
 BENT POSTURE

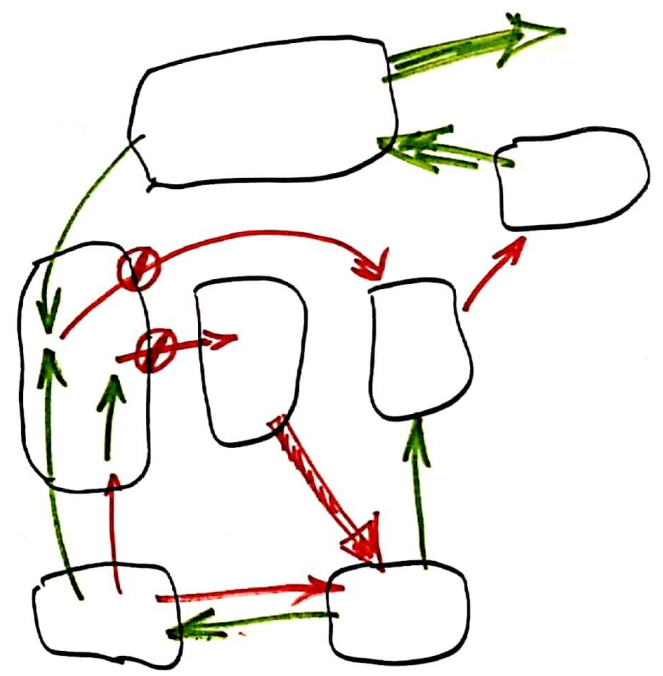






CHorea  
HD

W<sub>1</sub> F<sub>1</sub> S<sub>1</sub> P<sub>1</sub> C<sub>1</sub> D<sub>1</sub>



HUNTINGTON'S CHorea

Genetic  
disease  
CAG repeat  
K4

AD 5th decade

SYDENHAM'S CHorea

HUNTINGTON'S CHorea

irreversible DEGENERATION

PERMISSIBLE & DAM

IMMUNE ON PUPA

INVOL MTD

DEGENERATION + SUMMUM

PALIUM

+ T<sub>H</sub> F<sub>1</sub> M<sub>1</sub> D<sub>1</sub> C<sub>1</sub>

Genetic disease CAG repeat K4

AD 5th decade

SYDENHAM'S CHorea

HUNTINGTON'S CHorea

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Genetic disease CAG repeat K4

AD 5th decade

SYDENHAM'S CHorea

HUNTINGTON'S CHorea

irreversible DEGENERATION

PERMISSIBLE & DAM

IMMUNE ON PUPA

INVOL MTD

DEGENERATION + SUMMUM

PALIUM

+ T<sub>H</sub> F<sub>1</sub> M<sub>1</sub> D<sub>1</sub> C<sub>1</sub>



CONCEPTUAL OVERVIEW  
INTEGRATIVE FUNCTION  
BGA  
RESULTING  
BEHAVIOR

PROCESSES & LINK TO G

ACTIVITY  
DETERMINED  
VIA

THALAMUS (3)

CEREBRUM

ARIOR

BASEL GANGLIA  
FUNCTION OF  
ASSOCIATIVE  
LYMBIC  
& MOTOR  
IN STRIATUM  
TRAVEL THROUGH  
DIPLOMATIC PATHWAYS  
RESULTS IN A INTEGRATED  
OUTPUT TO  
THALAMUS

DIPLOMATIC  
& MOTOR

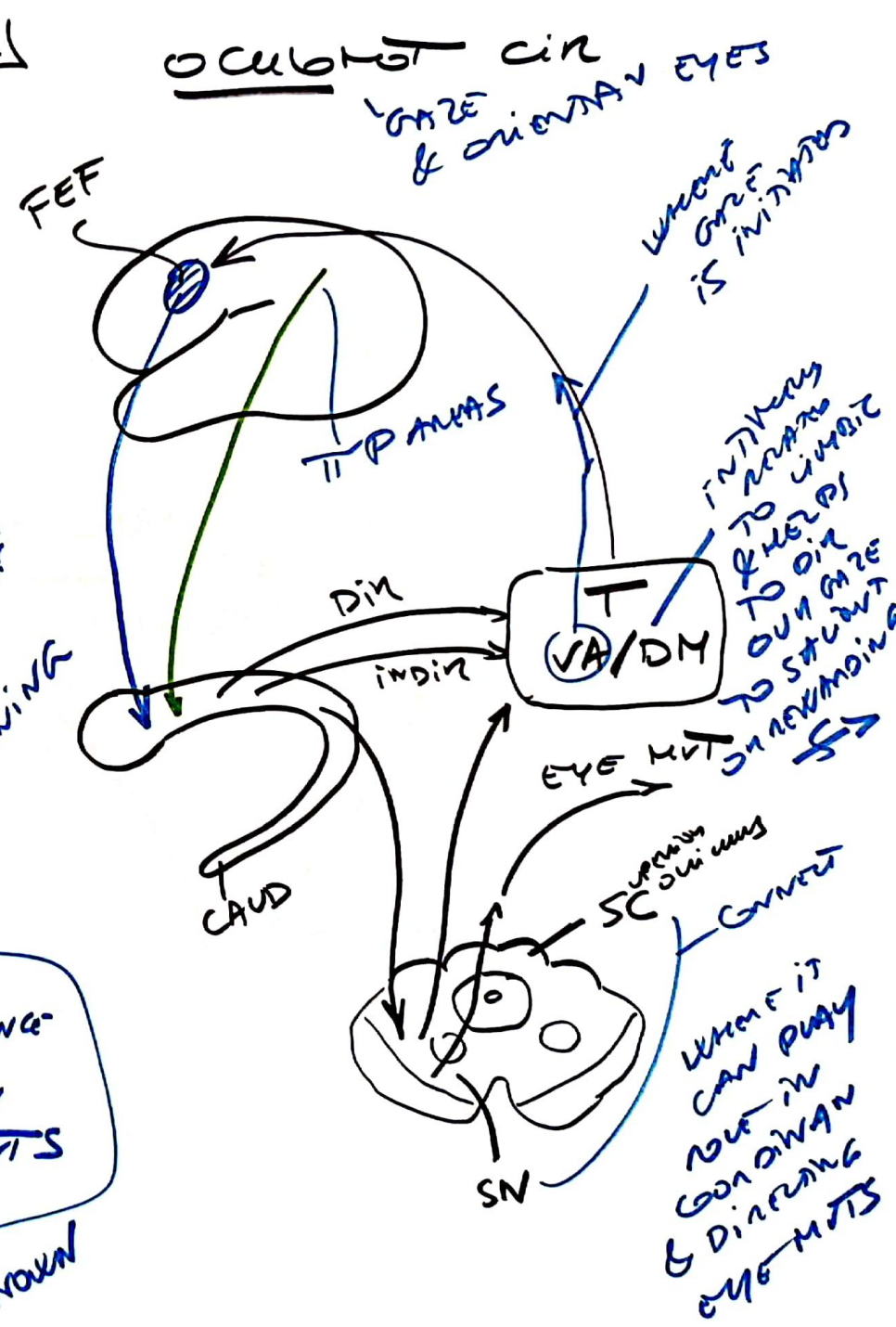
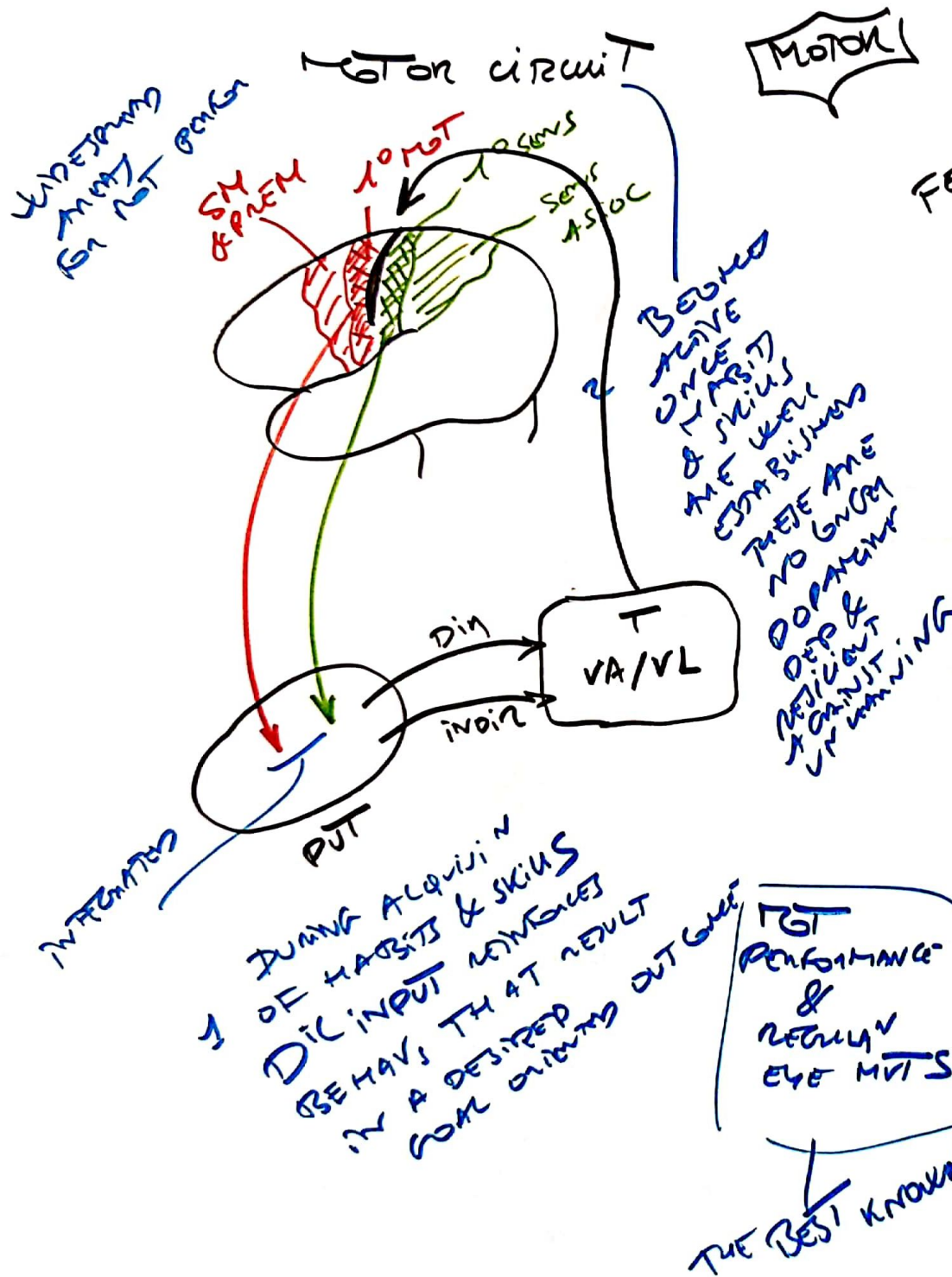
FUNCTIONAL  
RELATIONSHIPS

INTEGRATE  
SUM OF SENSORY  
& MOTOR  
INPUTS INTO ONE  
BEHAVIOR OUTPUT

SENSORY  
& MOTOR  
INPUTS  
FINAL GANGLIA  
PATHWAY

FUNCTIONAL RELATIONSHIPS



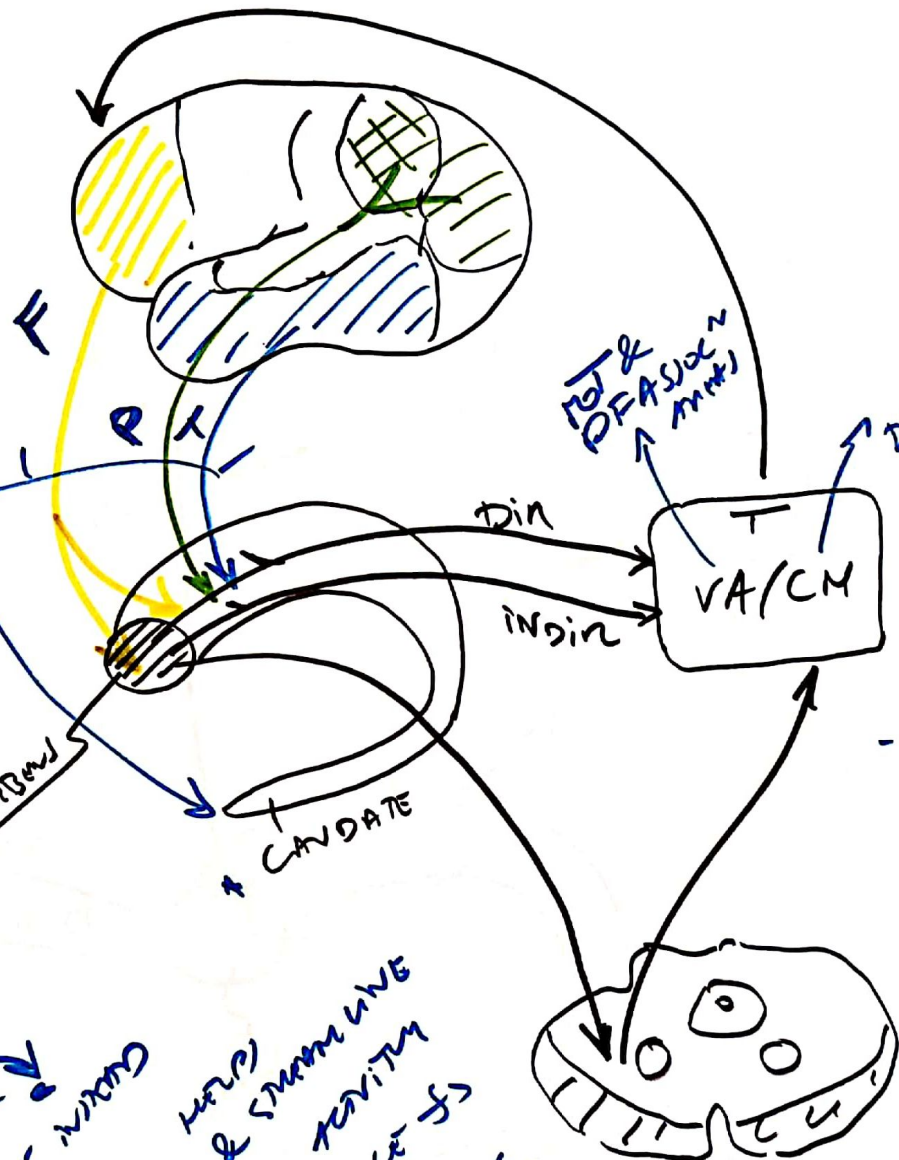




- PARTICIPATES IN PLANNING OF  $\tau$  NOT ACTIVITY. WHEN NEW HABITS & SKILLS HAVE BEEN PRACTICED & WELL LEARNED & WELL MASTERED & WELL MAINTAINED THESE STRONG OPERATIONAL BEHAVIOR BECOMES AUTOMATIC IN CIRCUIT & BECOMES HAVE NORMS

- SIMILARLY HELPS TO PRIORITY & SEQUENCING HIGHLY COGNITIVE INITIALLY STRONG  $\tau$ s NEURAL EXP & LEARNING HELPS TO STRENGTHEN & TUNES UP BEHAVIOR OUTPUT

ASSOC  
MATER  
TO  
ACCURACY



COGNITIVE  
- MORE HIGHLY  
COGNITIVE  
& NOT  
LEARNING

DIFFUSION  
INFLUENCES  
OVERALL  
KNOWLEDGE  
&  $\tau$







