

- Problem  
 From prec prot produced  
 special type: MERT  
 MEC

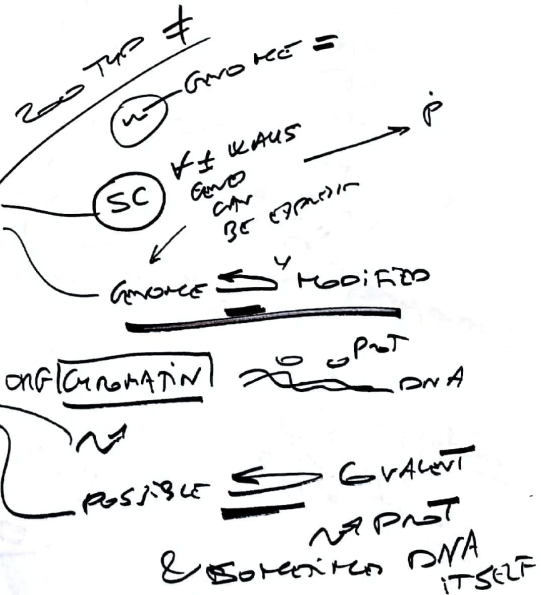
**Overview**

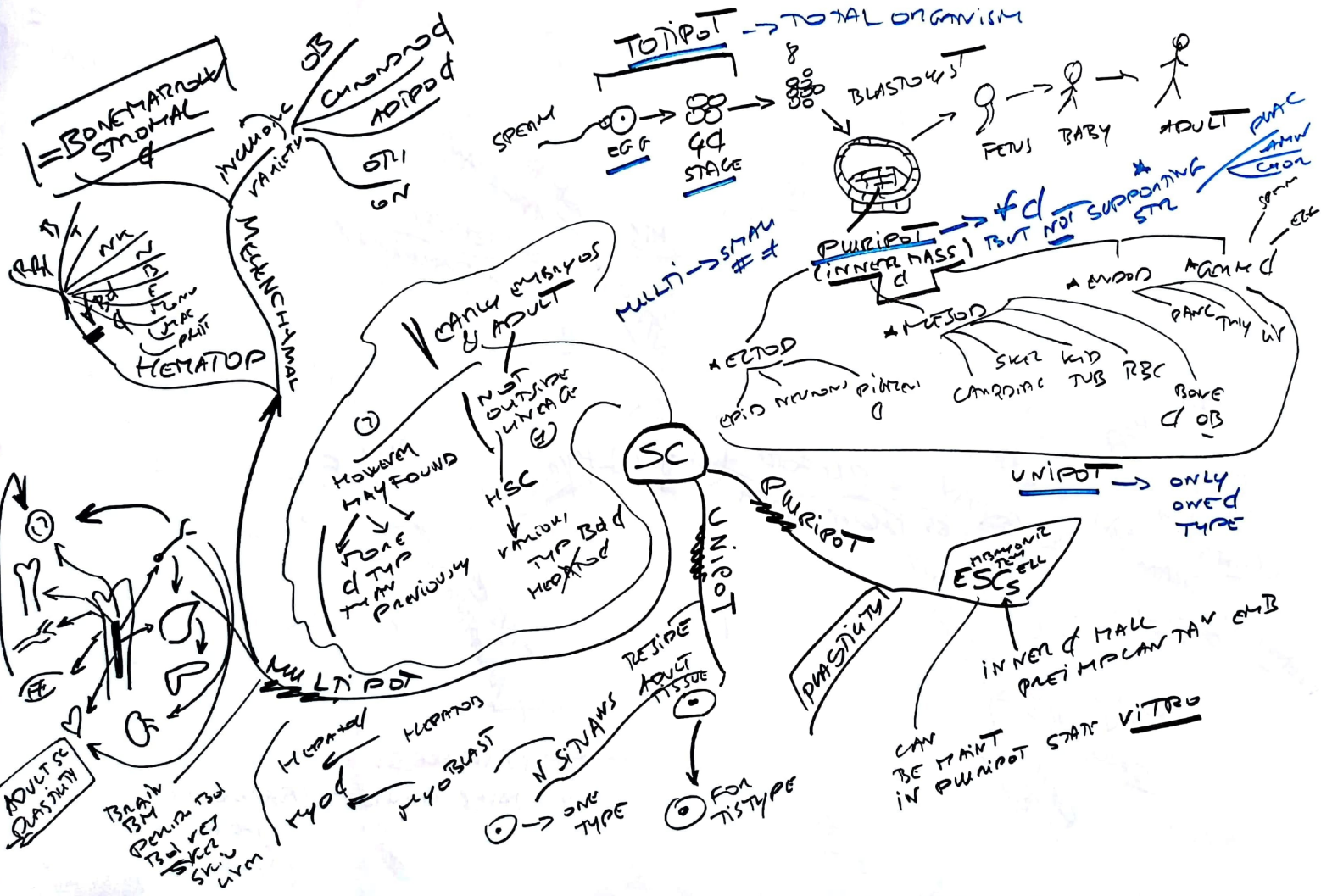


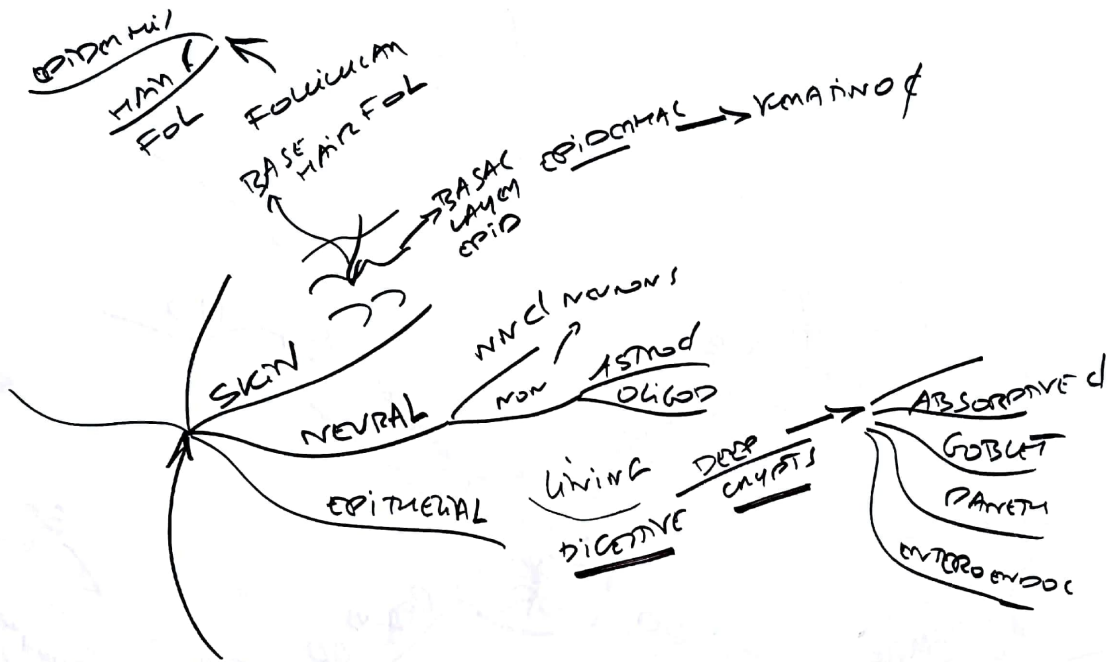
Gene Expression as Prot

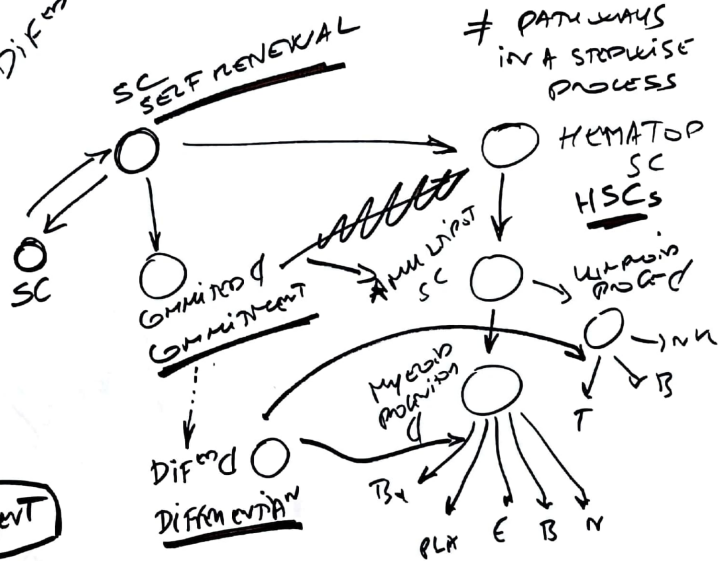
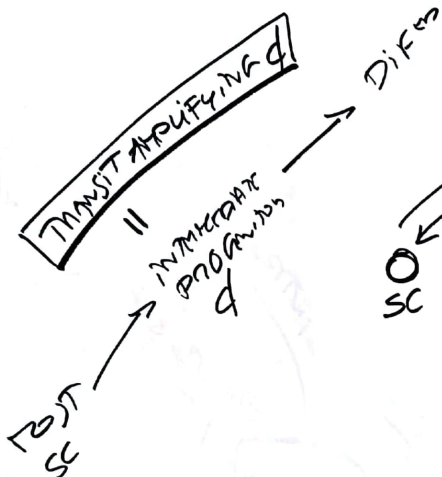
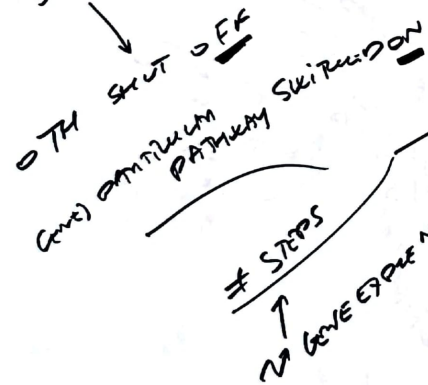
new for TRANSCRIPTION

EPIDEMIC REGION

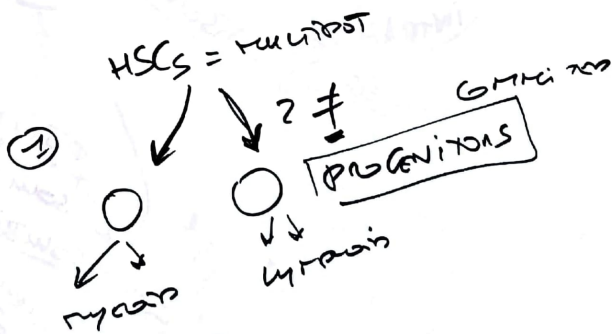


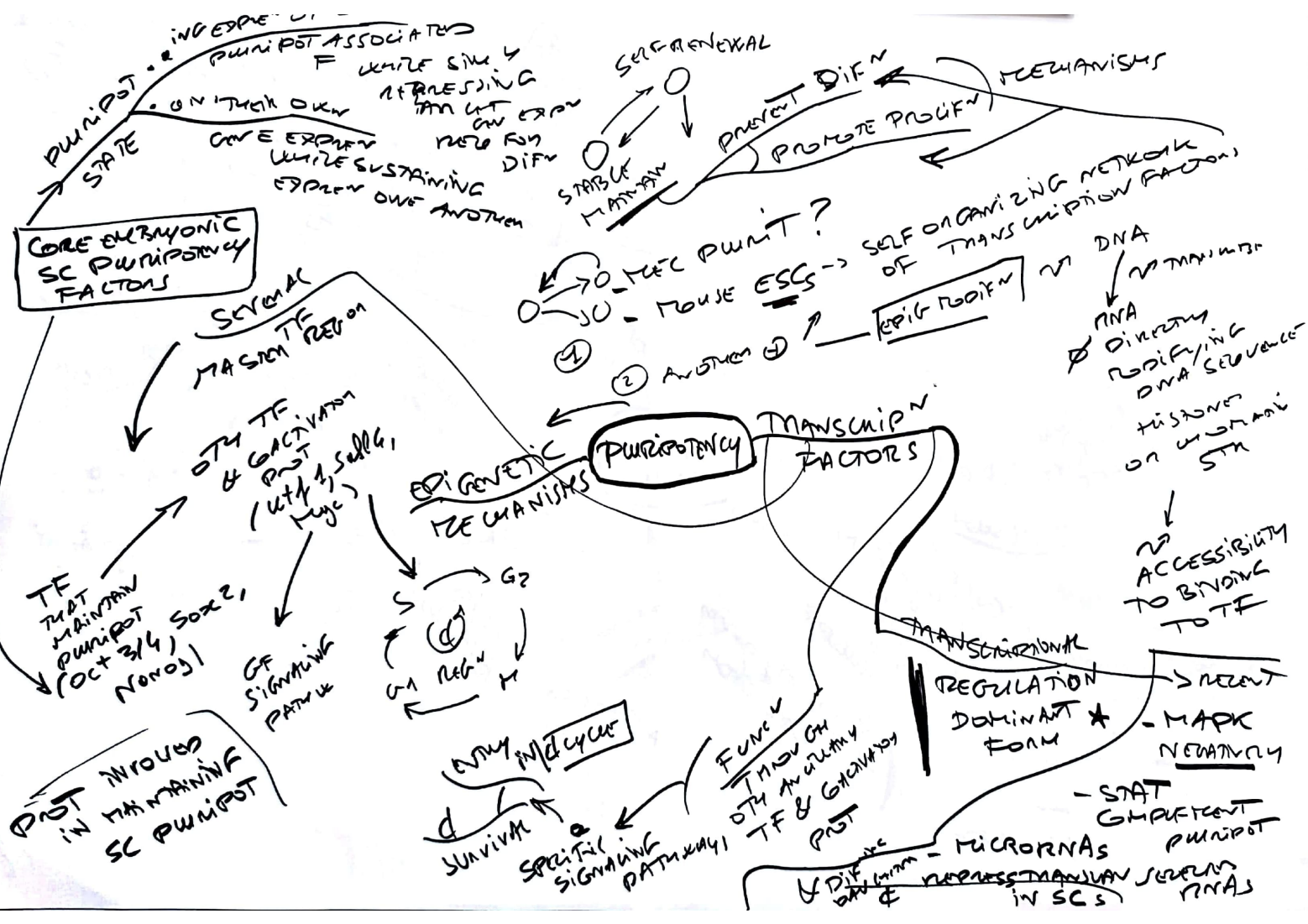






**COMMITMENT**





CORE EMBRYONIC SC PLURIPOTENCY FACTORS

PLURIPOTENCY

TRANSCRIPTION FACTORS

any m/cycle

REGULATION DOMINANT FORM

- STAT GMPACTANT PLURIPOT  
- MICRORNAs SUPPRESS TRANSCRIPTION IN SCs

PROT INVOLVED IN MAINTAINING SC PLURIPOT

TE THAT MAINTAIN PLURIPOT (OCT 3/4, SOX2, NANO3)

TF & GACTIVATION POU5F1 (with SOX2, MYC)

SEVERAL MAJOR TF REGION

G1 REGN  
G2

TRANSCRIPTIONAL

ACCESSIBILITY TO BINDING TO TF

DNA  
RNA  
DIRECTIONS  
MODIFYING DNA SEQUENCE  
HISTONES OR HISTONE STR

SELF-ORGANIZING NETWORK OF TRANSCRIPTION FACTORS

TO-TEC POU5F1?  
JU - MOUSE ESCS -> EPIGENETIC MECHANISMS

SELF-RENEWAL

PREVENT DIFFN  
PROMOTE PROLIFN

MECHANISMS

PLURIPOT STATE  
INDIFFERENT  
ON THEIR OWN  
CORE EXPRESN  
SUSTAINING EXPRESN  
ASSOCIATED WITH SELF-RENEWAL  
UPREGULATING  
DOWNREGULATING

CAN DETERMINE IF PWRNIPOT IS MAINT OR DIFF TNG

STEM CELL

OCT4  
SOX2

CAN MODULATE CELLULAR STATE BY REGULATING

GENE PROMOTER OCT4 SOX2

DNA METHYLTRANSFERASES

POLYMBP GROUP

LOT OF UNUSUAL MODIFICATION

ALLOWS FOR RAPID REWINDING THAT IS NECESSARY FOR SC TO ASSESS ORIGIN

EPIGENETIC RECC

OPEN STRUCTURE



UNOIF

INDUCES TO OIF



SINGLY ≠

OIF

UNUSUAL RECC RELAXED

LOW LEVEL EXPRESSION SEVERAL GENES CAN PWRNIPOT



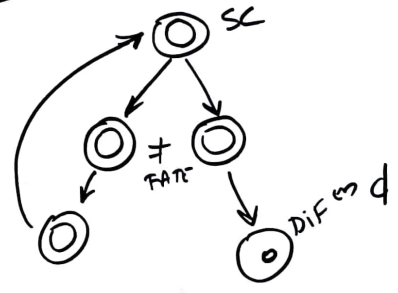
**POLARITY ONE**

- STABLE FEATURE
- EARLY EMBRYOS
- MAY BE TRANSIENT FEATURE IN TISSUE

MEC

Renewal

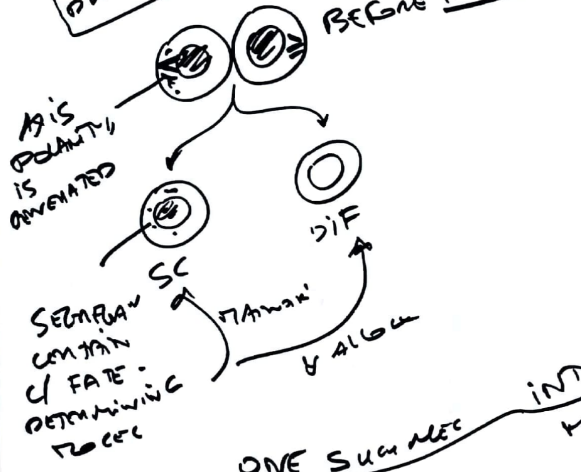
ASYMMETRIC  
DIVISION



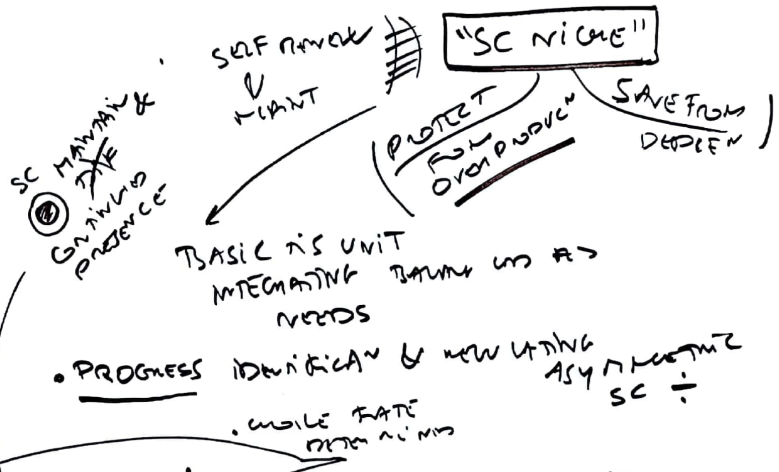
12/24



DIFFERENTIAL SEGREGATION OF GROWTH DURING ASYM C



BEFORE MITOSIS



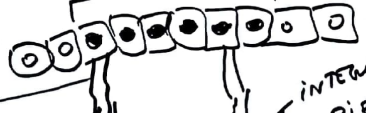
ONE SOURCE NICHES

INTRINSIC NICHES

EXTRINSIC SIGNALING

SUBPOPULATION

CADHERINS



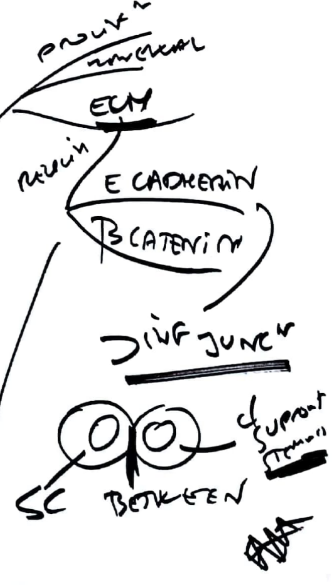
INTERACTIONS DIFFERENTIATED

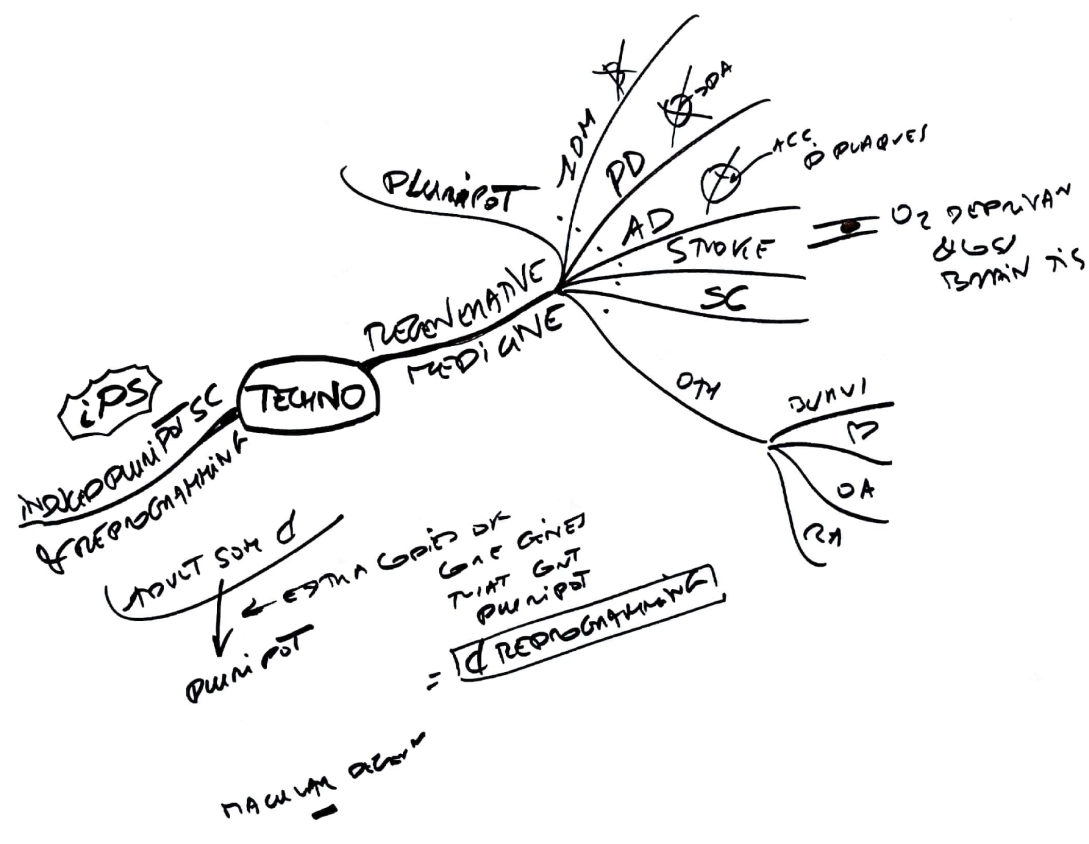
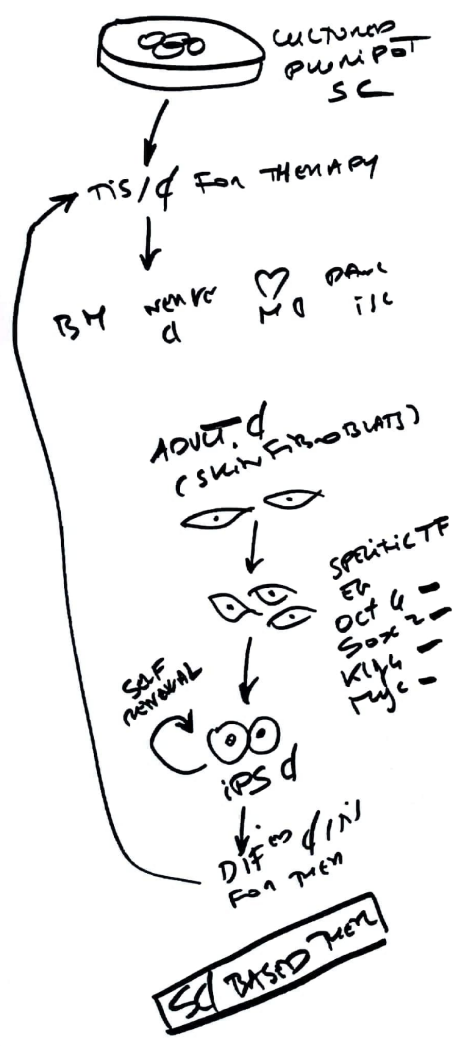
- ADHERENS JUNCTIONS
- OUTSIDE DIRECT CONTACT WITH OB → DIF
- CLOSE ASSOCIATION → SC

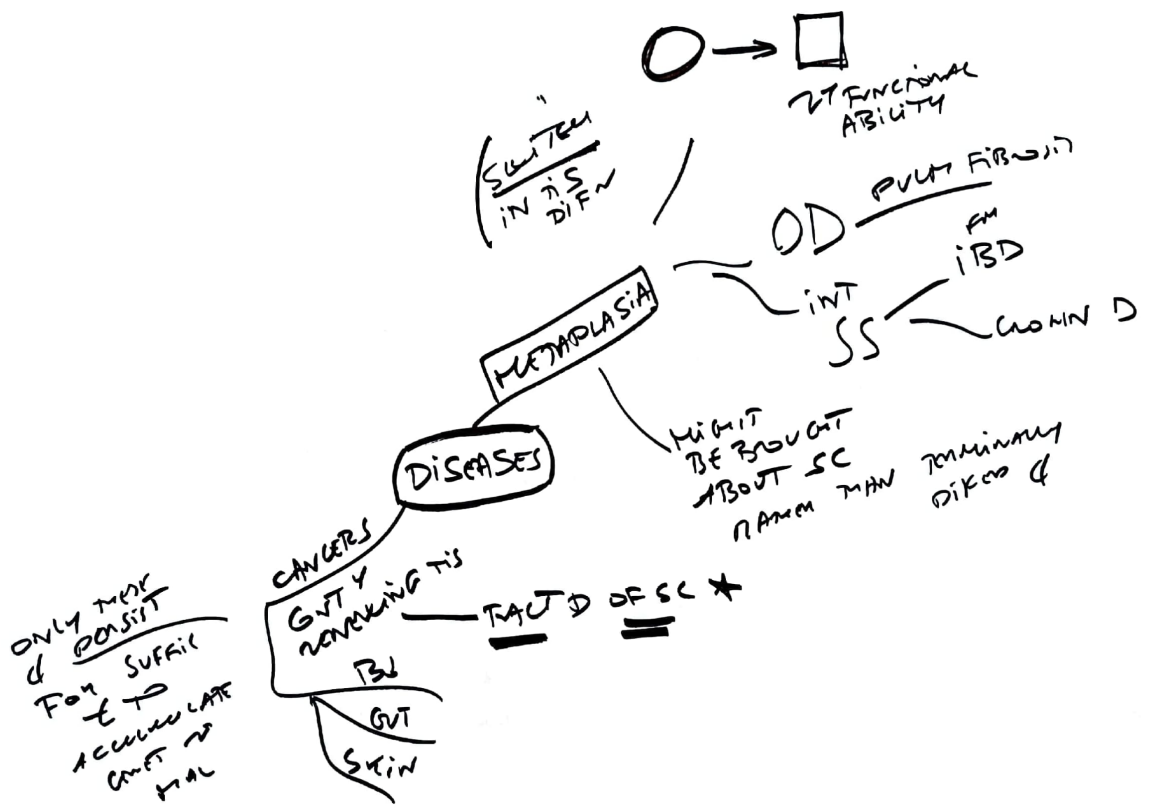
BONE MICROENVIRONMENT



EXTRINSIC PATHWAYS MAINTAINING HSC SC NICHES







AD

