

# **P.S. This is a notebook written by Jennifer Joy Brenley Nyhof.**

- Thymus (regression, lack thereof); positive and negative selection of T cells; histology
- M1 / M2 macrophages / chimera / polymorphism / role of post-translational modification
- EPO / testicular tissue [ neoplasia incl. treatment modalities / normal tissue ] / homology / hypoxia / kidney and exogenous - therapeutic vs doping
- allogeneic CAR-T cell therapy ? / coupled / RBC [type - Ag presence / absence / RH factor / major / minor cross match - see chart in agenda book] - Oxygen tension / disparity / cell fragility
- HLA / MHC 1 shift / drift / inter v intra-individual variability
- jquery: incidence and severity [outcome] of Type 1 hypersensitivity reaction following administration of natural colloids (plasma).
- early embryonic / fetal exposure to antigens [self, similar, and non-self], immune stimulation, and effect, incl theory Re: embryonic/fetal "drinking"/"eating" post-gastrulation via GUT tube / M.A.L.T. [G.A.L.T] development / tissue - resident macrophages / lymphocytes /
- jquery - eyecup [retinoblastoma] / gut tube / notochord / invaginations / outside becomes inside except gut tube where outside stays outside / extend to chondrogenesis / laying down bone from cartilage template re: osteosarcoma
- immune surveillance of mammary tissue / lactation {higher pH c.f. other tissue-associated fluid / above pKA of X?} v no lactation / blood supply / pH - ion trapping [relative charge across the barrier] / mechanical stimulation / local trauma / ability for effector cells to gain access / cell fragility / hormone / neurotransmitter / charge / mammary neoplasia
- jquery: incidence / prevalence during pregnancy - gastrulation / mammary tissue development of the fetus
- study design / quality / nutritional plane / content / laboratory animal model / resiliency / robustness / selenium / vitamin E / lithium, etc. / confounding variables /
- dopamine precursor / first past metabolism ( FPM ) / lithium as a ligand and its effect on FPM / products of metabolism / incl. (nor)epinephrine / receptor-binding / downstream effects

- repair vs you're doing it wrong / keep going when you shouldn't / stop when you could keep going / ds vs ss / "resolution" of DNA pol; RNA-dependent RNA polymerase ? / transcription-translationomics
  - disperse / separation of keratinocytes from underlying dermis / refer back to scaffold / M.A.C.I. / Re: making ECM / articular surface / bone marrow - refer back to making bone from cartilage - germ layers / gastrulation / the right thing in the wrong place / the wrong thing in the right place / signal recognition / migration - the right time / the wrong time / the midline / refer to invagination / OSA / RBA - RPE / BRCA1 / MC; divergence / A.L.L. - learning / memory see self v similar v non-self (plasmacytoma / B cell / T cell) need for healthy B cell population ?? - hyperimmune serum / plasma / whole blood / monoclonal / polyclonal gammopathy and therapeutic potential of the product of a productive "problem"
  - passing Go for \$200, not passing Go for \$200 [the stimulus / inhibition / activation / suppression] for entering and exiting Go
  - the lac operon {later} - glucose / lactate / other factors / transposable elements / transposons / TMV and the replication competent vector in context.
  - lectin / concavalin A
  - in-vivo, autogenous fertilization, zygote formation, and early embryonic development in the nasopharynx of a health human female patient following oviduct transposition.
  - Type 1 Alveolar Cells | Type 2 Alveolar Macrophages | Cationic\* Surfactant ( Supraphysiological ) | Mucus [ Quantity and Quality ] | Cysteine | Sulfhydryl Bridges [ Mercaptan, My Captain ] | Increased Total Dissolved Oxygen (TOD) Content
  - ATP / Membrane potential | Electrophysical-chemical-physiological properties of the cell | CD47-Receptor interaction | [additional 2 ATP ] | increased capacity to withstand (osmotic) stress + RBC turnover [ red-pulp macrophages | fast but not too fast ] | enhanced "antigen presenting-like" capacity of RBC's ?
    - [ jquery: benefits of a finely tuned RBC - Macrophage - T Cell interaction ? ]
    - jquery: Primary antibody CD47 - HRP Conjugated - FC. See below.
    - Compare and contrast / evaluate RBC turnover and immunotherapeutic potential.
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- What if and the opposite | Protected sites | RICE [ rest | ice | compression | elevation ] vs DRAW [ Depress ( Trendelenburg | Reverse Trendelenburg | Prone vs Supine | Peripheral vascular access | atypical site ) | Relax ( Vasodilation ) | Acid ( pH | local anesthetic | (pro)inflammatory state vs not ) | Warm ]
  - JQuery: Human RPESC
  - The 'quest to better and safer
- Whole blood [ infusion | transfusion ]\* vs. component | what do cells need to work that (accompanying) RBC's might provide?

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Origene (1-888-267-4436) - Antibodies and Recombinant Protein

#### ELISA

\* AM09183HR-N / TNF alpha (TNF) Mouse Monoclonal [Detection] Antibody (HRP Conjugated) [ Clone ID: B1E4 ]  
 - filter search = conjugate / primary antibody / Database Link: Entrez Gene 7125 Human / P01375

\* TA700026 / TNF alpha (TNF) Mouse Monoclonal Detection [Primary] Antibody (Biotin conjugated) [ Clone ID: Mab11 ]  
 - filter criteria = primary antibody / Database Link: NP 000585 / Entrez Gene 7125 Human / P01375

#### IHC

\*TA807833BM / TNF alpha (TNF) Mouse Monoclonal Antibody (HRP conjugated) [ Clone ID: OTI5H8 ] / Database Link: NP 000585 / Entrez Gene 7124 Human / P01375

\*\*TA804090BM / Calprotectin (S100A9) Mouse Monoclonal Antibody (IgG2b) (HRP Conjugated) [ Clone ID: OT17B1 ] (formerly 7B1) / Database Link: NP\_002956 / Entrez Gene 6280 Human / UniProtID P06702 {S100 family of proteins containing 2 calcium binding motifs, localized to the cytoplasm and/or nucleus of a wide range of cells / involved in the regulation of cell cycle progression and differentiation / may fxn in the inhibition of casein kinase / altered expression associated with cystic fibrosis }

#### FC

\*TA807833BM / TNF alpha (TNF) Mouse Monoclonal Antibody (HRP conjugated) [ Clone ID: OTI5H8 ] / Database Link: NP 000585 / Entrez Gene 7124 Human / P01375

\*TA804843BM / CD47 Mouse Monoclonal Antibody (HRP conjugated) [ Clone ID: B6H12 ] / Database Link: NP\_001768 / Entrez Gene 961 Human / UniProtID Q08722

#### WB

\*TA807833BM / TNF alpha (TNF) Mouse Monoclonal Antibody (HRP conjugated) [ Clone ID: OTI5H8 ] / Database Link: NP 000585 / Entrez Gene 7124 Human / P01375

#### Recombinant Protein

\*TP750117 / TNF alpha (TNF) (NM\_000594) Human Recombinant Protein / Tag Free / Database Link: NP000585 / Locus ID 7124 / Uniprot ID P01375

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CD34+ also:

\*TA804031BM / CD34 Mouse Monoclonal Antibody (HRP Conjugated) [ Clone ID: OTI51A1 ] / for FC and IF / Database Link: NP\_001020280 / Entrez Gene 947 Human / UniProt ID P28906

Dopamine. Sure.

\*BP122S / Dopamine D2 Receptor (DRD2) (Short Isoform 239-246) Rabbit Polyclonal Antibody / Note Reactivity / ELISA, IF, IHC, WB / Immunogen: D2s (Ac239-Cys247) covalently attached to a carrier protein / Unconjugated / Homo sapiens dopamine receptor D2 (DRD2), transcript variant 1 / Entrez Gene 1813 Human / UniProt ID P14416.

Thank you, [Origene](#). [UniProt](#). [BioGRID](#). [Bgee](#). [Sprint](#).

Love, [Jenn](#).

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\*SM1170F / CD90 (THY1) Mouse Monoclonal Antibody / FC-FITC / [ Clone ID: F15-42-1 ] [ N.B. CD90 is a 25kD glycoprotein homologous to rat Thy1. The antigen is expressed by a subset of CD34+ve cells in the bone marrow and by prothymocytes within the thymus. CD90 is also expressed extensively within the brain. ] / Entrez Gene 7070 / UniProt ID P04216

\*TA802949 / CD68 Mouse Monoclonal Antibody / FC, IHC, WB / [ Clone ID: OTI3B6 ] / Human Monocytes / Tissue Macrophages / NP\_001242 / Entrez Gene 968 Human / UniProt ID P34810

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*CD34+ / CD90+ | FC for At... [ Atypical and Atopy - Indeterminate and Indiscriminate ] | There will be an answer. Let it T.*

*An ex-vivo option for validation? I like [flow cytometry](#). Do u ?*

*Another [t-test](#).*

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[The countermeasure.](#)