Bridge to Doctorate Meeting Minutes
November 5, 2018

Facilitator: Victor Calle
Minute Taker: Steven J Toro

**Duration:** 10:30 am – 11:00

**Net Working** – It’s beneficial for your personal development
- Attend Conferences
- Volunteer to help at events
- Improving your communication skills will help you to open many doors

**LinkedIn** - Work on the profile information and keep it updated
- Photo (professional), Personal Information, Undergraduate and graduate experience

**Next semestre registration**
- 9 Credits minimum to get the fellowship
- You can use research credit to complete the minimum credits required

**Plan Study** – Develop a study plan that guide you during your graduate journey
- Know the dates of your qualification exams
- Make a list of the classes required by your program
- Start working on this timeline and get it READY for next semester

**Duration:** 11:00 am – 12:00

**Presentation:** “Minor Splicing and ALS”

➢ **Central Dogma**
  DNA → Transcription → RNA processing → mRNA → Translation → Protein

➢ **Introns** - Segment of a DNA or RNA molecule that does not code for proteins and interrupts the sequence of genes. This segment can be removed in RNA processing steps.
  - **Mayor Intron** – Compose more than 99.5% of introns
  - **Minor introns** – Compose less than 0.5% of introns
    - **Diseases** - Cerebellar Ataxia, Cerebellar Ataxia and possibly Amyotrophic Lateral Sclerosis

➢ **Minor Spliceosome** - Complex that catalyses the removal (splicing) of an atypical class of spliceosomal introns from eukaryotic messenger RNAs

➢ **Amyotrophic Lateral Sclerosis (ALS)**
  - Progressive neurogenerative disease → Upper/Lower motor neurons
  - Weakness in your leg, feet or ankles.
  - Always fatal
    - **Sporadic ALS** - Unknown cause (Genetic component)
    - **Familiar ALS** –Related to failure in genes – FUS (P5225L), Sod1, TARDP and others

➢ **Cre-Loxp** - (U11 CAG-cre cKO) Animal model to study tissue specific DNA mutations
  - **Inducible**- the mutation can be activated when you want and deactivated
  - **Cx3cr1** - Microglia specific KO mouse → Promising model to study ALS

➢ **ALS Biomarkers** - Measurable substance is indicative of some phenomenon such as disease: ALS
  - **CSN** - The process is not practical to perform
  - **Urine** - Relatively easy to collect
  - **MUNE** - Is minimally invasive → Estimate lower motor neurons degeneration
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Upcoming meeting: November 26th, 2018.
Facilitator: Steven Toro
Minute taker: Victor Calle

Attendees:
Victor Calle
Kevin Rivera
Pierre Fils
Cristian Aviles Martin
Brandon Williams
Roman Mays
Godwin Dzidotor
Steven J. Toro
Aida Ghiaei
Randi Mendes