



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.

- **Major 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 neurodegenerative disease → Upper/Lower motor neurons
- Weakness in your leg, feet or ankles.
- Always fatal
 - **Sporadic ALS**- Unknown cause (Genetic component)
 - **Familial 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

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Attendees:

Victor Calle

Kevin Rivera

Pierre Fils

Cristian Aviles Martin

Brandon Williams

Roman Mays

Godwin Dzidotor

Steven J. Toro

Aida Ghiaei

Randi Mendes