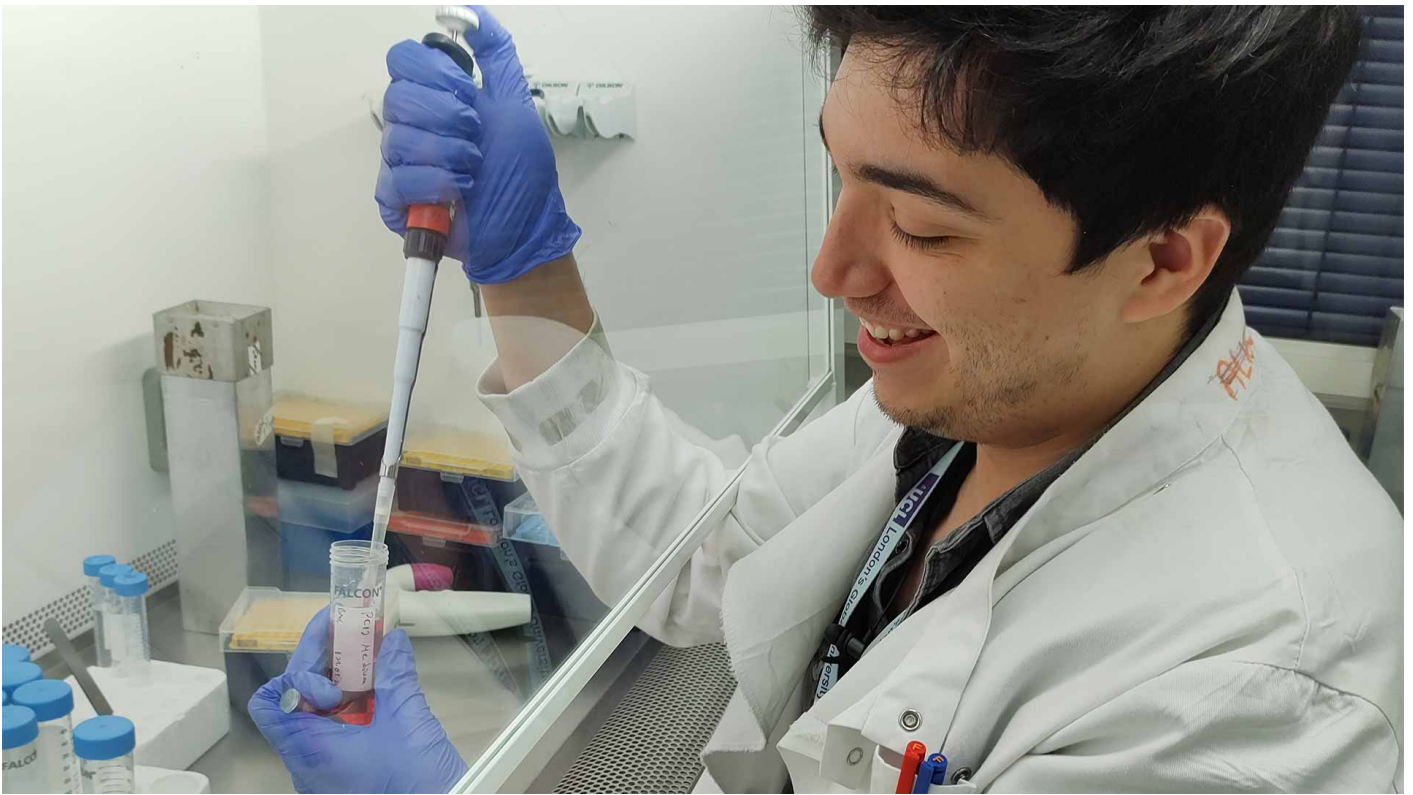


Tec graduate stands out for study of neurodegenerative diseases



Braulio Martínez De la Cruz, a Tec graduate from **Laguna campus**, is studying the **development of neurons in the human brain** and the epigenetics of **neurodegenerative diseases** such as Alzheimer's, at [University College London](#).

The **Tec graduate** is a research fellow in a **group of researchers at this university**, one of the best educational institutions in the world, where he has been studying the location and translation of **RNA molecules** during **neuronal development**.

But this journey began at [Tecnológico de Monterrey's Laguna campus](#), when Brulio decided to study for a degree in **Biobusiness Engineering**. Due to his talent and the support of his professors, he fell in love with research.

The Tec graduate talks to **CONECTA** about his professional journey to being awarded a **PhD in Genetics** from the [University of Nottingham](#).



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His work against neurodegenerative diseases

Over the last seven years, Braulio Martínez **has dedicated his research to RNA epigenetics in neurons of the human brain.**

“I study how neurons develop in the human brain and the epigenetics of neurodegenerative diseases such as Alzheimer’s,” he said.

“We investigate what kind of environmental alterations induce changes in your neurons and why when we are older these alterations make us lose connections and neurons, depending on our genetics,” he explained.

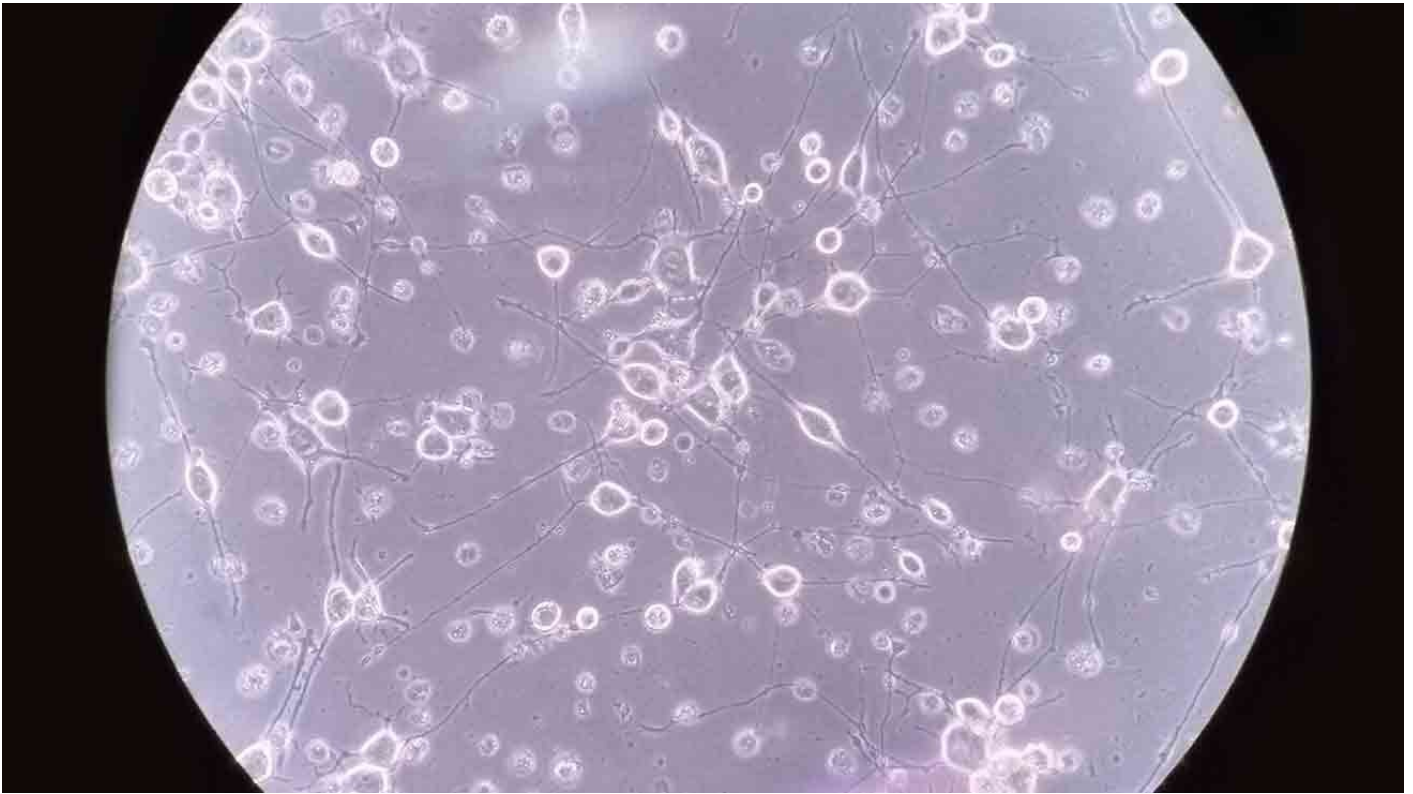
Braulio says that his area of study is still very new. Even though it has been around since the seventies, **it wasn’t until 2012 that people began to see its importance.**

“When I started in 2015, we were among the first groups in the world to look at epigenetics in the brain, specifically in RNA.”

At the moment, Braulio and the team of researchers have only seen the basic science of the subject, but the hope and promise are great. **He estimates that it will take another 15 years to see the results.**

“Once these studies are completed, diseases such as Alzheimer’s, Parkinson’s, Huntington’s, and others could be stopped,” he said.

However, his studies carried out in the last 7 years have already shown results in aiding research aimed at stopping tumor growth in cancer patients.



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Awards and publications

During his Genetics PhD course, his project was **awarded funding in 2018 from the University of Nottingham Interdisciplinary Centre for Analytical Science (UNICAS)** and he has also presented his work at international neuroscience conferences such as the Federation of European Neuroscience Societies Forum.

At the **British Neuroscience Association's 2021 Festival of Neuroscience**, he won **second place in his category**.

His research has been published in international scientific journals such as **Molecular Psychiatry**, published by Nature.

We believe that through medication, we can correct certain defects in the neurons so that they will grow back in the right way.

His time at the Tec's Laguna campus

Braulio began his degree in **Biobusiness Engineering** with the goal of working in breweries, even developing a craft beer.

His whole plan changed when his degree course director, **María Luisa Cueto**, offered him the chance to do a professional internship with a group at the **IPN Center for Research and Advanced Studies (Cinvestav)**.

Braulio accepted and carried out a genetic study on the populations of Mexico: people of native, mestizo, and European descent.

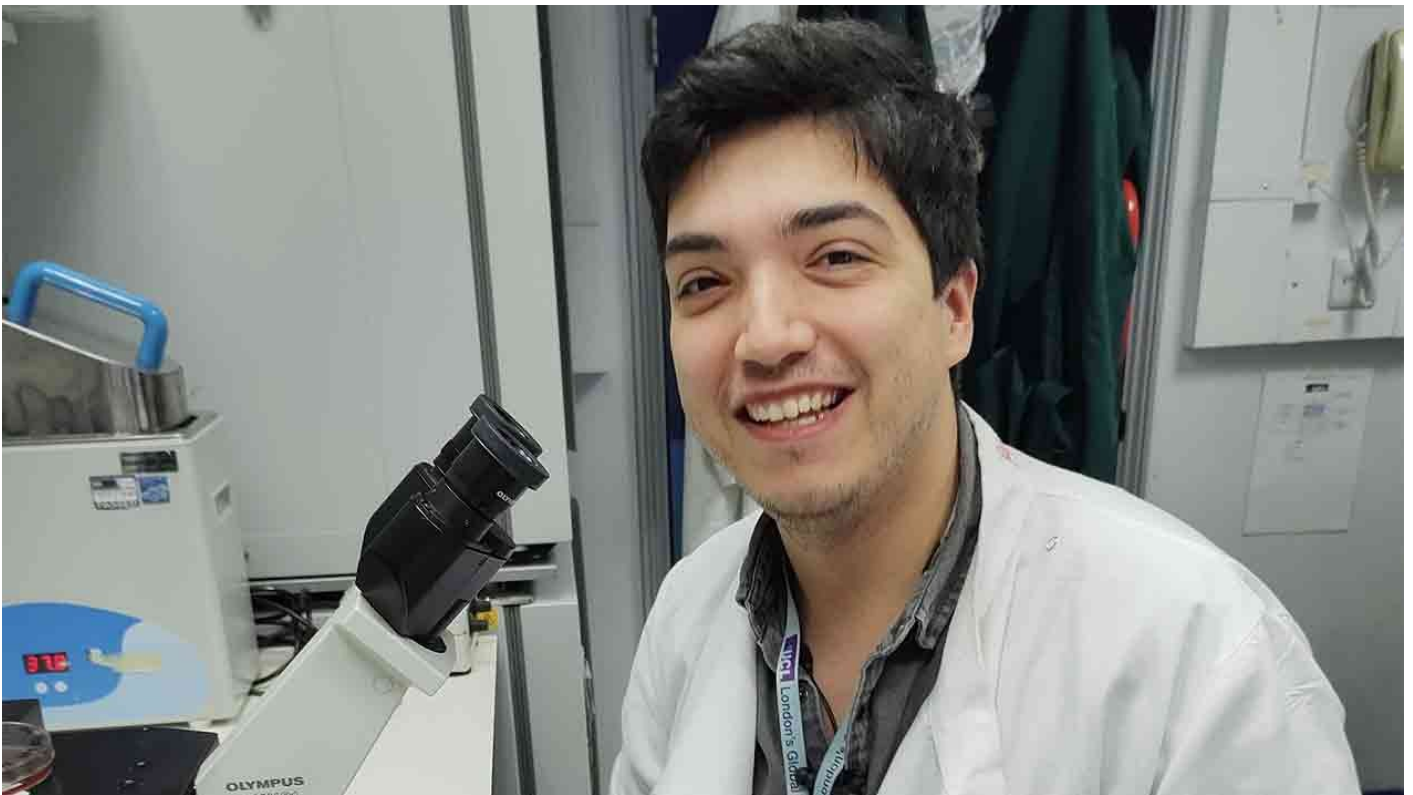
Upon completion of this internship, Braulio was **invited to lead his own research project** over the summer.

“It was an advantage that the Tec offers long summer internships, as I was able to spend more time on this project. I realized that I really liked doing research.”

When he returned to campus, his new degree course director, **Adria Imelda Prieto, who is the current Director of the School of Engineering and Sciences at the Laguna campus**, shared her experience of studying for a PhD in England.

“Adria supported me a lot and meeting her was very important for me. She helped me with my documents and how to choose the best option for me.”

Braulio graduated from the Tec’s Laguna campus in May 2015, knowing that he would be studying for a **PhD at the University of Nottingham**.



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“Look for opportunities, approach your professors”

Throughout his degree, Braulio stood out for his research projects and for his community work in the student group Lazos Misioneros.

He also founded the **BIOTEC Biotechnology Symposium**, where he served as president, vice president, and treasurer.

Regarding his future, Braulio plans to continue publishing the results of his work to obtain funding for his research and the possibility of becoming a **full professor at the University of London**.

And he does not rule out that his work as a researcher could give him the opportunity to **start his own company**.

Finally, **Braulio shares a message for CONECTA readers.**

“Believe in yourself. When I started at the Tec, I didn’t think it would be possible for me to be in a university like the one I am in now,” he said.

“Look for opportunities, approach your professors, take advantage of all the opportunities that the Tec offers you, and don’t underestimate basic knowledge, it’ll always be present in your careers,” he concluded.

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