

# Martha Carolina Elizondo Cantú

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## Education

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**Msc Molecular Biosciences.** (2019-Present)

**Ruprecht-Karl Universität Heidelberg.** Heidelberg, Germany.

Major: Systems Biology

**B.S. Biotechnology Engineering.** (2014-2019)

**Tecnológico de Monterrey.** Monterrey, NL, Mexico.

Minor: Molecular Biology

Average grade: 96.55 (1-100 scale)

## Research Experience

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**Intern.** (Jul-Aug 2019)

**École Polytechnique Fédérale de Lausanne.** Lausanne, Switzerland.

At the Laboratory of Biological Network Characterization, responsibilities consisted on the preparation and optimization of cell free systems.

**Undergraduate Research Assistant.** (Jan-Jun 2017, 2018)

**FEMSA Biotechnology Center.** Monterrey, NL, Mexico.

At the Group of Bioengineering, Biosystems and Synthetic Biology, responsibilities consisted in the construction of phagemids and the subsequent production and purification of recombinant bacteriophages, as well as the analysis of their expression by means of immunoassays and luminescence.

**Research Trainee.** (Jul-Dec 2017)

**Biomaterials Innovation Research Center at Harvard University and MIT.** Boston, MA, USA.

Belonging to the Harvard - MIT Division of Health Sciences and Technology and the Brigham and Women's Hospital, at the Molecular Nanosystems Subgroup. Responsibilities consisted in the fabrication and characterization of several types of nanoparticles and hydrogels, *in vitro* efficacy and biocompatibility assays, and fluorescence microscopy imaging.

**Team Leader.** (2016)

**iGEM Tec de Monterrey.** Monterrey, NL, Mexico.

Co-Leader of the team and responsible of the wet lab. Project consisted on developing an eco-friendly bioleaching technology using two modified bacteria for recovering metals from e-waste.

**Team Member.** (2015).

**iGEM Tec de Monterrey.** Monterrey, NL, Mexico.

Responsible of Human practices and assistant in the wet lab. Project consisted in the introduction of the Sf9 cell line to synthetic biology by developing a tool kit of several biobricks for their use in this new chassis.

**Collaborator.** (Aug-Oct 2014).

**iGEM Tec de Monterrey.** Monterrey, NL, Mexico.

Assistant in the wet lab. Project consisted in the development of a bacterial cancer therapy.

**Research Trainee.** (Jun-Jul 2013, Jun-Jul 2014)

**CITES (Innovation and Health Transfer Center).** *Monterrey, NL, Mexico.*

At the Cell Therapy group, responsible of the analysis of the frequency of genetic alterations in EGFR, P16INK4A and PTEN in Mexican population diagnosed with glioblastoma multiform.

**Team Member.** (2012).

**iGEM PrepaTec\_GarzaSadaMx.** *Monterrey, NL, Mexico.*

Part of the iGEM team of the high school *Prepa Tec Campus Eugenio Garza Sada*, learning and applying techniques of molecular biology.

## Work Experience

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**Education and Science Communication Coordinator.** (Present)

**AllBiotech.** *Remote work - Latin America region.*

Coordinator of projects that promote science education and communication among the community, to impulse Biotechnology in the Latin American region.

**iGEM Ambassador.** (Present)

**iGEM Foundation.** *Remote work - Central Europe region.*

Supporting iGEM teams in Central Europe and organizing and attending events to promote iGEM and Synthetic Biology. As well, connecting former participants, stakeholders and the synthetic biology community.

**Project Manager.** (Jan-May 2019)

**Scintia, Innovación y Desarrollo en Biología Sintética S.A.P.I. de C.V.** *Monterrey, NL, Mexico.*

Leader of research in the development of an educational kit of synthetic biology, including the design and characterization of expression cassettes in *E. coli* and *S. cerevisiae* and the design of experimental protocols.

**Coordinator of Institutional Relations.** (2016-2018)

**BIOGENERA A.C.** *Monterrey, NL, Mexico.*

Responsible of the contact and follow-up with schools at which courses are given, including elementary, middle and high schools, as well as with the different universities with whom BioGenera A.C. works. Experience giving science classes to elementary, middle and high school students.

## Languages

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Spanish: Native. English: TOEFL IBT 110. German: Basic A2. French: Basic A2.

## Awards

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Regional Northeast Scholarship.	CONACYT, 2019.
Honorific Mention of Excellence and Best Average Grade of the Program.	Tecnológico de Monterrey, 2019.
Diploma of excellence in integral formation and award for Social Leadership.	Tecnológico de Monterrey, 2019.
Multifaceted recognition for artistic expressions, research and contribution to NGOs.	Tecnológico de Monterrey, 2019.
Award for Outstanding Woman of Tecnológico de Monterrey.	Tecnológico de Monterrey, 2019.
Outstanding student at the School of Science and Engineering.	Tecnológico de Monterrey, 2018.
Top 100 Young Leaders in Biotechnology at Latin America.	AllBiotech. 2017.
Award to Research and Innovation Romulo Garza.	Tecnológico de Monterrey. 2016.
Gold medal at the Giant Jamboree in the iGEM competition.	iGEM Foundation, 2016.
Outstanding Student at Social Service.	Tecnológico de Monterrey. 2015.
Academic Talent Scholarship.	Tecnológico de Monterrey. 2014.

## Conferences

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Elizondo, M. (2019). *Preparation and optimizations of cell-free expression systems*. Poster session at the Summer Research Program, at École Polytechnique Fédérale de Lausanne, Switzerland.

Elizondo, M. (2019). *Perspectives of a Young Scientist*. Conference the event Science Today, for the International Day of Women in Science at Tecnológico de Monterrey, Campus Monterrey.

Elizondo, M., Soto, K., Rojas, M., López, A., Lino, M., Gómez, I., Medina, F, (2018). *Social Appropriation of Biotechnology*. Discussion Panel at AllBiotech 2018 at the University of Guanajuato in Guanajuato, Guanajuato, Mexico

Elizondo, M. (2018). *Enhanced bioleaching of electronic waste with engineered bacteria: Acidithiobacillus ferrooxidans and Chromobacterium violaceum*. Presentation at the Gulf Coast Undergraduate Research Symposium at Rice University, Houston, TX, USA.

Elizondo, M. (2017). *Fabrication and Characterization of Nanovectors and Oleo-Based Biomaterial for Genetic Material Delivery*. Presentation at the Gulf Coast Undergraduate Research Symposium at Rice University, Houston, TX, USA.

## Extras

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**Advisor.** (2018-2019). **iGEM Tec de Monterrey.** Monterrey, NL, Mexico.

Advisor of the iGEM team Tec-Monterrey, helping in troubleshooting of the experiments and giving feedback in many aspects of the project (Presentation, Human Practices, Wiki, among others). Judge at the Giant Jamboree 2018.

**Ambassador and Academic Program Coordinator.** (2018). **AllBiotech,** Mexico.

Ambassador of AllBiotech in Mexico and coordinator of the Academic Program team for AllBiotech 2018 summit, as part of the organizing team.

**President.** (2016-2017). **Biotechnology Engineering Student Association.** Monterrey, NL, Mexico.

President of the Biotechnology Engineering Student Association, which mission is to improve the experience of the students of B.S. Biotechnology Engineering.

**President.** (2015-2016). **GeneUs.** Monterrey, NL, Mexico.

Leader of the science promoting project GeneUs at Tecnológico de Monterrey as student group and in charge of the social service.

**Organization Collaborator** (2014-2016). **NUCLEUM (Biotechnology Congress organized by students).** Monterrey, NL, Mexico.

Staff at the congress of 2015 and 2016, being part of the content planning team in both editions and having contact with the speakers.