Alejandro Athie Cuervo, PhD

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EDUCATION

• University of Navarra: PhD in Biomedicine (2012-2017)

Pamplona, Spain

• Columbia University: MA in Biotechnology (2010-2011)

New York, USA

• National University of México: BS in Genomic Sciences (2006-2010)

DF, México

EXPERIENCE

Center for Applied Medical Research, CIMA

Pamplona, Spain

Graduate Student, (2012-2017)

o Integrative Genomic Analysis:

Analyzed the genome of 7,448 tumors from cancer patients to identify copy number altered regions harboring a class of genes called: lncRNAs. Integrated these data with RNA-seq to identify novel cancer genes. In addition, experimentally validated the function of a discovered lncRNA and confirmed its roles in lung cancer.

• Cancer Mutations Analysis:

Identified the mutations present in cancer tumors samples and analyzed their impact in RNA binding proteins (RBPs). In addition these data was integrated with eCLIP and shRNAs experiments to unveil RBPs-RNA interactions involved in the disease.

Herbert Irving Comprehensive Cancer Center, HICCC

New York, USA

Master Student, (2010-2011)

o Breast Cancer Research:

Experimentally explored the regulation of the tumor suppressor PTEN, performing molecular biology techniques.

Institute of Cellular Physiology, IFC

DF, México

Rotation Student, (2008-2010)

o Influenza Virus Detection:

Conducted sequence comparison analysis for the design of molecular beacon probes to differentially detect Influenza virus subtypes, during the global flu outbreak in 2009.

• Evolutionary Conservation Analysis:

Performed multiple sequence alignments and protein domain homology analysis which led to the identification of a new family of proteins involved in cholesterol uptake.

Skill Highlights

- Lab techniques: Extensive knowledge of molecular biology techniques, from genome editing to functional assays.
- Programming: Built analysis pipelines using R, Perl and bash.
- Software:: Galaxy, UCSC browser, IGV, CellProfiler, GraphPad, Microsoft Office, Adobe Illustrator, EndNote.
- Data Presentation: Project proposals and results presentation using Jupyter Notebooks and LATEX.
- Languages: Spanish (native speaker) and English (proficiency level. TOEFL iBT, score:109)
- Additional skills: Writing of scientific reports and teaching material. Results presentation to highly specialized audiences. Comfortable with public speaking and teaching.

Professional Development

- **Publications**: Participated in research projects all of them leading to a strong scientific publication record cited a total of 243 times (for the full list please visit: goo.gl/LV8UaW).
- **Presentations**: Research project presentation at international conferences.
- Leadership & Teamwork: Co-supervised the project of master rotation students together with Maite Huarte, PhD.
- Teaching: Worked as teaching assistant in the Biochemistry & Genetics course for Medicine students, 300 hours of lessons.

Fellowships and Awards

- **Project Scholarships**: from the Ministry of Economy and Competitiveness (Spain), CONACyT (México) and Carso Health Insitute (México) for PhD, MA and BS respectively.
- Awards: Graduated with summa cum laude designation in PhD and BS studies.

References

• Maite Huarte PhD:

Principal Investigator at the laboratory of Long non-coding RNAs, Gene Regulation and Cancer. Center for Applied Medical Research, Spain. maitehuarte@unav.es

• Julian Valdes PhD:

Principal Investigator at the laboratory of Epigenetic Control of Gene Expression. Institute of Cellular Physiology, México. julian.valdes@ifc.unam.mx