**Dana Mariel Diaz Jimenez**

Strasbourg, France | +33 0755895150 | dana.diazji@gmail.com

**EDUCATION**

**University of Strasbourg** **Strasbourg, France**

*Ph.D. in Life Sciences Graduation Date: January 2022*

* Foundation Recherche Medicale (FRM) 4th year Ph.D. Fellowship

**WORK EXPERIENCE**

**Institute of Genetics and Molecular and Cellular Biology (IGBMC) Illkirch, France**

*Ph.D. Student January 2018- January 2022*

* Established the expression and purification protocols for recombinant human proteins improving solubility and stability.
* Determined the molecular function of the novel described human proteins performing Electrophoretic Mobility Shifts Assays (EMSA) and remodeling assays.
* Evaluated biochemically the impact of cancer-derived mutations on the function of human proteins providing a molecular basis for understanding the deleterious effects of some missense mutations.
* Characterized with biophysical techniques such as Dynamic Light Scattering (DLS), Circular Dichroism (CD), and Size Exclusion Chromatography- Multi-Angle Light Scattering (SEC-MALS) stability and formation of protein-DNA complexes.
* Quantified the affinity of DNA binding proteins to its ligands by performing Isothermal titration Calorimetry (ITC).
* Developed the protocols for sample preparation and data acquisition for structural studies of multiprotein complexes by crystallization and single-particle cryogenic electron microscopy (Cryo-EM).

**Laboratory of Physical Chemistry and Protein Engineering National Autonomous University of Mexico (UNAM) Mexico City**

*MSc Student August 2014- May 2016*

* Cloned, expressed, and purified transcription factors and enzymes from *Escherichia coli*
* Determined binding constant of enzymes and transcriptions factors to its ligands performing CD, ITC, stopped-flow kinetics and, intrinsic fluorescence spectroscopy experiments.

**Institute of Physico-Chemical Biology Paris, France**

*MSc Student Research stage August 2015- November 2015*

* Elaborated EMSA experiments to determine the DNA binding region of a bacterial *Escherichia* transcription factor.
* Improved molecular biology techniques such as genomic DNA and RNA extractions and large- scale plasmid preparations.

**Laboratory of Physical Chemistry and Protein Engineering National Autonomous University of Mexico (UNAM) Mexico City**

*BSc Student August 2013- July 2014*

* Cloned, expressed, and purified transcription factors and enzymes from *Escherichia coli*
* Performed molecular biology techniques as PCR, agarose gel electrophoresis, DNA extraction, and bacterial transformation.

**SKILLS & INTERESTS**

**Skills:** Management experience in data analysis and storage| Microsoft Office| Adaptability to learn new techniques| Molecular biology| Protein Purification| Physico-chemical characterization of proteins| Cryo-EM| X-ray crystallography

Languages: English, Spanish and French