# ROPÓN-PALACIOS G. ("Geordano")

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RESEARCH ASSISTANT

Computational Biophysics, Bioinformatics and Drug Design Lab
Facultad de Ciencias de La Salud, Instituto de Ciencias Biomédicas
Universidad Autónoma de Chine,
Llano Subercaseaux 2081 - piso 6, San Miguel, Santiago, Chile.

**2. Research interests :** Membrane proteins, viroporins, all-atom and Coarse grained MD simulation of virus, large-scale simulation of supramolecular complexs, theoretical biophysics, method development in computational biophysics, drug and vaccine development, scientific programming and AI.

**3. Formation**

(a) **Biosciencist,**
School of Biological Sciences, Universidad Nacional de la Amazonía Peruana, Iquitos, Loreto, Perú. 2011-2015, ***gradute with Cum laude mention***. Thesis: ***" Potential antigens of diagnostic interest in Tritrichomonas foetus secretome"*** classified as very good. Defense date: 30/01/2018. **Advisor:** Prof. Dr. Jose Luis Marapara del Águila

**4. Skills and Abilities**

(a) **English:** Intermediate

(b) **Operating systems:** Mac OSX and Linux.

(c) **Programming lenguages:** C/C++, Tcl, Python, Bash, AWK.

(d) **Computational packages:** VMD, AMBER, CHARMM, NAMD, Gromacs, Autodock4, Autodock-vina, Prody, PDBFixer, Modeller, Swiss-model, Pymol, Gaussian, Mopac, Gamess, Matplotlib.

(e) **Computational biophysics methods:** Umbrella sampling, Steered Molecular dynamics, Gaussian accelereted Molecular dynamics, Accelereted Molecular dynamics, Free energy perturbation, MM/PBSA, Non-equilibrium dynamics, DF/HF quantum mechanics methods.

(f) **Molecular Biology techiques:** DNA/RNA extraction, Electrophoresis, Western Blot, RNA seq, Immunofuoresence, Membrane reconstitution, current-clamp.

**5. Research positions**

(a) Computational Biophysics, Bioinformatics and Drug Design Lab. Facultad de Ciencias de La Salud, Instituto de Ciencias Biomédicas, Universidad Autónoma de Chine, Llano Subercaseaux 2081 - piso 6, San Miguel, Santiago, Chile. Leader group: Prof. Dr. David Ramírez. **2020-Actually.**

(b) Matter condensed physics Lab, and Computational modeling and simulation Lab, Department of Physics, Instiute of Exact Sciencies, Universidad Federal de Alfenas, Minas Gerais, Brasil. Leader group: Prof. Dr. Ihosvany Camps. **2019-Actually.**

**6. Scientific meetings (14)**

1. **Ropón, G.G.,** Ochavano, J.R., Machoa, J. 2014. ***Role of the pigs of the community of Santo Tomas as host of Balantidum coli.*** V International Course of Tropical and Infectious Disease, Iquitos, Peru.
2. **Ropón-Palacios G**., Acurio J., Salguero N., Human-Sutta V., Rodríguez-Lima I. ***Immunoinformatics prediction epitopes B and T of gp63 protein from Leishmania braziliensis: reveals epitopes conserved with others Leishmania spp and allow the design***

***of multi-epitope protein as potential vaccine***. Encuentro Científico Internacional de Invierno, Perú, 2018.

3. **Ropón-Palacios G.,** Acurio J., Salguero N., Human-Sutta V., Rodríguez I., Quispe-Mamani R., Mormontoy S. ***In silico-based secretory proteins prediction of Tritrichomonas foetus reveals potential vaccine candidates: An integrative bioinformatics approach.*** Encuentro Científico Internacional de Invierno, Perú, 2018.

4. Salguero N.#, **Ropón-Palacios G.#,** Acurio J.#, et al***. Molecular dynamics simulation in subunit vaccine design*: *A case of study***. Encuentro Científico Internacional de Invierno, Perú, 2018. # igual contribución.

5. **Ropón-Palacios G.,** Olivos-Ramírez G., Otazu-Mamani K., & Torres-Castillo O. ***Box size in molecular docking assays by genetic algorithms is very important to replicate the calculation of free energies (ΔG)***. Encuentro Científico Internacional de Verano, Perú, 2019.

6. **Ropón-Palacios G.,** Otazu-Mamani K., Olivos-Ramírez G. & Torres-Castillo O. ***Novel potencial inhibitors against Nipah Virus: A computational biology approach.*** Encuentro Científico Internacional de Verano, Perú, 2019.

7. **Ropón-Palacios G.,** Ruiz Mesia W., Otazu-Mamani K., Olivos-Ramírez G., Torres-Castillo O., Puma-Zamora W., Arias Calle N. ***Discovery of novel pan-inhibitors against wildtype and mutated Cytb protein from Plasmodium falciparum through of computational simulation***. Encuentro Científico Internacional de Verano, Perú, 2019.

8. Olivos-Ramírez G., **Ropón-Palacios G.,** Otazu-Mamani K., Chenet-Zuta M. 2019. ***Análisis de dinámica molecular de 5'-hidroxiestroptimicina de Spirulina platensis como inhibidor de dihidrofolato reductasa de Staphylococcus aureus: una vista atómica de reconocimiento molecular***. En libro de Resúmenes de la V Jornada Internacional en Biociencias 2019.

9. Otazu-Mamani K., Olivos-Ramírez G., **Ropón-Palacios G.,** 2019. ***An virtual screening of Allium sativum metabolites against wild-type and mutated dihydrofolate reductase protein from Staphylococcus aureus***. XX Congreso Nacional de Estudiantes de Biología, Lambaque, Perú, 2019.

10. Ramirez-Díaz Y., Sancho-Queque C., Osorio-Mogollon Cl., Otazu-Mamani K., Olivos-Ramírez g., **Ropón- Palacios G.** 2019. ***Drugability of homologous enzymes in helminths through biomolecular modelling: The case of Ancylostoma duodenale and Necator americanus***. XX Congreso Nacional de Estudiantes de Biología, Lambaque, Perú, 2019.

11. Osorio-Mogollón C., **Ropón-Palacios G.**, Baqui M**., In silico structural characterization and molecular docking of FAZ10 in Trypanosoma brucei**. X International Conference on Bioinformatics SoIBio+10, Uruguay, 2019.

12. Bonacina J., Carbajal M. **Ropón-Palacios G.**, Cantero M de R., Cantiello H. ***The protein ftsZ prokaryotic ancestro of the tubulin, form sheets bidimensionals that behaves like electric oscillators.*** III Jornadas de Microbiología sobre Temáticas Específicas del NOA Microbiología agrícola y Ambiental.

**National-**

13. Vargas-Santillan, J. A., Orbe, B., Olortegui, E. A., Rios, G., **Ropón, G. G**. 2014. ***Identification of culicidae potentials in the transmission of Encephalitis equine Venezuelan Virus, Iquitos, Peru, 2013.*** XV National Congresses of Biology Students, Ricardo Palma University, Peru.

14. Olivos-Ramírez G., **Ropón-Palacios G.,** Otazu-Mamani K., Merino F. ***5'-hidroxi-streptomicina de Spirulina platensis potencial inhibidor contra Dihidrofolato reductasa de Staphylococcus aureus: Un estudio de docking molecular***. Semana de la Ciencia, Universidad Nacional de Santa, Chimbote, Perú, 2018.

**7 . Papers**

1. **Ropon-Palacios G.,** y Chenet-Zuta M.E, Olivos-Ramirez G.E., Otazu K., Acurio-Saavedra J., Camps I. 2019. **Potential novel inhibitors against emerging zoonotic pathogen Nipah virus: virtual screening and molecular dynamics approach**. Journal of Biomolecular Structure and Dynamics, DOI: 10.1080/07391102.2019.1655480

2. **Ropon-Palacios G.,** y Chenet-Zuta M.E., Olivos-Ramirez G.E., Otazu-Mamani, K., Camps I. 2019. **Novel Multi-epitope protein containg conserverd epitopes from different Leishmania species as potential vaccine candidate: Integrated immunoinformatics and molecular dynamics approach**. Journal of computational biology and chemistry journal 2019. DOI: https://doi.org/10.1016/j.compbiolchem.2019.107157.