

Jonathan David Hurtado Pachón

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Curriculum vitae

I am a person committed to scientific research processes and I seek to contribute in a conceptual, investigative, creative and innovative way, during the development of the proposed work. My academic background responds to the professional profile of a researcher in chemistry, who manifests his love for the profession, being a teacher by conviction and a researcher with the ability to work in a team and solve highly complex research problems.

Areas of interest

Computational chemistry of organic and biochemical reactions and drug discovery. The first field of research concerns the determination of reaction mechanisms by Quantum Mechanics (QM) and hybrid Quantum/Molecular Mechanics (QM/MM) methods. This type of studies can provide valuable information on the electronic and steric factors that determine the energetic and stereochemical course of the reaction and that can be obtained with experimental techniques. The results can be used to strengthen or discard mechanistic hypotheses, predict reactivity and design new and improved reagents, catalysts or enzyme inhibitors. The second area of research focuses on the discovery of enzyme inhibitors or activators as new drug candidates. For this, we mainly use molecular docking and molecular dynamics (MD) tools that can successfully explore and cross the boundaries between chemistry, biology and pharmacology.

EDUCATION

January 2017- February 2019	UNIVERSIDAD DE LOS ANDES. City of Bogotá Master's Degree in Chemical Sciences. Master's and Doctorate Program in Chemical Sciences. Thesis: Computational study aimed at the design of antimycin analogues as potential inhibitors of AGPS.
January 2010-April 2016	FRANCISCO JOSÉ DE CALDAS DISTRICT UNIVERSITY. Bogotá, Colombia Degree in Chemistry. Thesis. Interdisciplinary Analysis of the Auroral Phenomenon: A Scientific Construction from Chemistry, Physics and Astronomy.

ACADEMIC ACHIEVEMENTS

January 2019	Highest grade (5.0/5.0) in the submission of the undergraduate thesis titled "Estudio computacional approach aimed at the design of antimycin analogues as potential inhibitors of AGPS".
January 2017- February 2019	Full scholarship for master's degree studies. UNIVERSIDAD DE LOS ANDES. Bogotá.
2010-3 y 2015-1 2016	Honors. Bachelor's Degree in Chemistry. Francisco José de Caldas District University. Master's Degree - Science - Chemistry Universidad Nacional Autónoma de México (UNAM).

EXPERIENCE

- March 16, 2020-
December 2, 2020** Teacher of natural sciences and head of the area. Full-time teacher of Biology grades 4 to 11. Chemistry teacher for grades 6 to 11. Grade 7 course director. Cra 79C No 55 - 17 Sur
Tel: 7770540 Bogotá D.C. gimnasioimperial15@gmail.com GESTION HUMANA TEL
3204420062
- 23 January 2017- 22 May
2019** **UNIVERSIDAD DE LOS ANDES. City of Bogotá**
Lecturer: 24 hours per week, guiding the laboratories and complementary courses of
general chemistry in the Chemistry Department. Researcher of the chemistry
department with a dedication of 24.00 hours per week.
- February 3 - May 31,
2016** **GRUPO FORMARTE S.A.S. 830515061-1**
Teacher of chemistry courses and pre-university (pre-university to enter the national
university) and pre-saber (saber pro tests) with the aim of addressing the
fundamental issues found in the various entrance exams of the National University and
saber 11° tests on chemistry, also taught academic reinforcement classes in university
education.
- 2015** **CORPOEDUCATION**
To provide professional services as a coder in induction sessions and coding of
answers in the area of NATURAL SCIENCES P1 in the process of coding answers to the
open-ended questions of Saber
11 Calendar A and B.
- August - December 2015** **FRANCISCO JOSÉ DE CALDAS DISTRICT UNIVERSITY**
Academic Assistant (Laboratory Monitor) of the subject's organic chemistry II and
inorganic analysis, within the basic functions are the request of material and
The results of the reactive tests, in turn, depend on the orientation of the students in the
development of the internships.

PUBLICATIONS

- 2017** Hurtado JP, Delgado BI, García JA. Interdisciplinary analysis of the auroral
phenomenon. *Investig Educ y Form docente.* 2017;1:419-432.
<http://www1.udistrital.edu.co:8080/documents/85123/d6a8a7bf-de3d-4ee8-9229-d78cd1d8b5>
- 2014** Andrea, M., Jonathan, H., & Janyeth, P. (2014). Science learning in formal basic
education in Bogotá for students with limitations.
visual. Magazine *TecnéEpisteme Didactis*, 9. Retrieved
from
<http://revistas.pedagogica.edu.co/index.php/TED/article/viewFile/3225/3037>
- 2013** Valencia, R., Hurtado, J., & Benavides, J. (2013). Construction of models about
electrochemistry and its teaching. IX CONGRESO INTERNACIONAL SOBRE
INVESTIGACIÓN EN DIDÁCTICA DE LAS CIENCIAS, 9-12.
<https://core.ac.uk/download/pdf/132090587.pdf>

CONGRESS PRESENTATIONS

June 28, 2019	II Bogotano Symposium on Computational Molecular Sciences Universidad Javeriana Participation with the paper "Computational study aimed at the design of antimycin analogues as potential inhibitors of AGPS".
August 13 to 17 2018	The school on computer simulations of biological membranes and free energy calculations of biological systems, held from August 13 to August 17, 2018, at the University of Los Andes in Bogotá, Colombia.
September 09 2018	VII National Meeting of Theoretical and Computational Chemists Universidad de la Costa Participation with the paper "Computational Study Aimed at the Design of Antimycin Analogs as Potential Enzymatic Inhibitors of the AGPS" September 9, 2018.
October 6, 2015.	III Meeting of socialization of research experiences Universidad Distrital Francisco José de Caldas Participation with the paper "Interdisciplinary analysis of the Auroral phenomenon".
October 2014	VI INTERNATIONAL CONGRESS ON SCIENCE TEACHER TRAINING with the poster of the research work entitled "Science learning in formal basic education in Bogota for students with visual impairment".
July 22, 2013	IX INTERNATIONAL CONGRESS ON RESEARCH IN SCIENCE TEACHING (GIRONA-SPAIN) with the poster Construction of models on electrochemistry and its teaching.

DIRECTION OF RESEARCH WORK

January 2020 - May 2021	In silico study aimed at the design of Helicobacter Pylori urease inhibitors. Carbon research group (Universidad Distrital FJC) in collaboration with the Computational Bio-Organic Chemistry group (Universidad de los Andes).
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GROUPS OF RESEARCH

2020 Present	<i>Lab Ramirez</i> <i>Faculty of Health Sciences - Institute of Biomedical Sciences Autonomous University of Chile</i>
2018- 2019	Computational bio-organic chemistry research group COBO Universidad de los Andes (Bogotá-Colombia) group leader Ph.D Gian Pietro Miscione.
2014-2017	NANOTOX SEEDBED NANOTOX Universidad Distrital Francisco José de Caldas- Group leader Bertha Inés Delgado Fajardo.