

# Edgar E. Gonzalez Kozlova, PhD

*Curriculum Vitae*

## PERSONAL DETAILS

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*Address* Pío Duarte Silva St. Florianopolis-Brazil  
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## EDUCATION

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### PhD in Bioinformatics

2012-2016

*Universidade Federal de Minas Gerais, Brazil.*

Thesis on B-cell epitope pattern identification and experimental validation.

### Bachelor's degree in Biological Sciences

2005-2012

*Universidad Nacional Mayor de San Marcos, Perú.*

Thesis on venom spreading factors from Bothrops snakes.

## SKILLS

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### DEVELOPMENT AND BIOINFORMATICS

*Analysis* Genome/Transcriptome, Single-cell, Molecular dynamics and biological models

Data Mining (Regression, Random Forest, Bayes, Support Vector Machine), Network Analysis (Graphs)

*Programming* Perl, Python, R, Shell/Bash

*Phylogenetics* Mr.Bayes and PVclust

*Software* Matlab, L<sup>A</sup>T<sub>E</sub>X, Gromacs, PyMol, Modeller, JMol, blast, Knime Emboss, Clustal, tcoffee, Star, FastaQC, Trinity, Spades, printseq-lite FeaturesCount, Jalview

*Servers* Remote SSH, FTP, SunFire, Altix, PBS

### WET-LAB

*Immunological* ELISA, SPOT, Western Blot

*Molecular Biology* PCR, Plasmid purification, DNA-RNA extraction

*Biochemical* Electrophoresis, AKTA, Chromatography

### ANIMAL HANDLING

*Bioterium* Immunization, keeping, mice, rats, rabbits, snakes, arthropods and horses

*Field* Reptiles, arthropods and amphibians

*Surgery* Mice, Snakes and venom extraction

### SOCIAL

*Languages* Russian (native speaker)  
Spanish (native speaker)  
English (fluent)  
Portuguese (fluent)

## **WORK EXPERIENCE**

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### **Grantee. Pós-Doc.**

2016-present

*CAPES, LIDI, UFSC, Brazil.*

Exclusive dedication as researcher. Tasks and Projects: Study of protein evolution, structure, and sequence of viral proteins; Protein design and expression in bacterial systems; Proteomic, Genomic, Transcriptomic and Single cell comparisons and data analysis.

### **Grantee - Researcher**

2012-2016

*CNPq - CAPES, Labimq, UFMG, Brazil.*

Exclusive dedication as researcher. Tasks and Projects: Computational identification of B-cell epitopes; Bioinformatic analysis of several transcriptomes; Labimq SSH server support; and responsible for disposal of toxic residues, biosecurity, and keeper of project related animals.

### **Researcher**

2007-2012

*Molecular Biology Laboratory, UNMSM, Perú*

Exclusive dedication as a researcher. Main duties: Immunochemical and biochemical assays with enzymes from several venoms; Immunization on mice, rabbits and horses; and Isolation or purification of proteins from complex samples.

### **Researcher**

2007-2012

*UNMSM - Museum of Natural History. Perú*

Venomous animals keeper, Venom extraction, surgery, feeding and health keeper for the animals. Main duties: Preparing the cages environment for the animals; Feeding and nursing; Venom extraction and surgery; and Guide for visits.

### **Consultant**

2011-2011

*ERM - International, Herpetology. Perú*

On field sampling and identification of reptiles and amphibians. Main duties: Specialized sampling of animals; and Identification for the samples.

### **Researcher and Consultant**

2009-2011

*Department of Herpetology, Museum of Natural History. Perú*

Performed identification and keeping the collection for the department. Main duties: Identification of samples; Cleaning and keeping of the collection; Consultant for external organizations; and Museum guide.

## PUBLICATIONS

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**Toxicon, PMID:29024770**

**2017**

Dan Vivas-Ruiz; Fanny E Lazo, Ph. D; Gustavo A Sandoval , Msc; Ruperto Severino; Edith F Rodriguez, Msc; **KOZLOVA, E. E. G.** ; Eladio F Sánchez, Ph.D; Carlos Chávez-Olórtegui , Ph.D; Armando Yarleque, Ph.D ; Biochemical, biological and molecular characterization of a new L-Amino acid oxidase purified from *Bothrops pictus* Peruvian snake venom.

**Oxford Bioinformatics, PMID:26787662**

**2016**

VIART, B. ; **KOZLOVA, E. E. G.** ; Neshich G ; Chávez -Olortegui C ; MOLINA, F. ; FELICORI, L; EPI-Peptide Designer: a tool for designing specific peptide ligand libraries based on Epitope - Paratope Interactions. *Bioinformatics* (Oxford. Online)

**BMC Bioinformatics, PMID:26696329**

**2015**

**KOZLOVA, E. E. G.** ; VIART, B. T. ; AVILA, R. A. M. ; FELICORI, L. ; Chávez -Olortegui C. Classification epitopes in groups based on their protein family. *BMC Bioinformatics*, 2015.

**Revista de la Sociedad Química a del Perú, ISSN:1810-634X**

**2014**

Delgadillo J. ; MERCEDES, P. ; F. Lazo ; RODRIGUE Z, E. ; **KOZLOVA, E. E. G.** ; SEVERINO, R. ; A. Yarleque . Purificación y algunas propiedades de una hialuronidasa del veneno de la serpiente *Bothrops brazili* 'Jergon Shushupe'. *Revista de la Sociedad Química a del Perú*, v. 79, p. 348-458,2014.

**Revista de la Sociedad Química a del Perú, ISSN:1810-634X**

**2013**

**KOZLOVA, E. E. G.** ; Ortiz Cesar ; SANDOVAL, G. ; F. Lazo ; Delgadillo J. ; RODRIGUE Z, E. ; SEVERINO, R. ; A. Yarleque . PURIFICACIÓN Y CARACTERIZACIÓN BIOQUÍMICA DE UN FACTOR DE DIFUSIÓN PRESENTE EN EL VENENO DE LA SERPIENTE *Bothrops atrox* 'JERGON'. *Revista de la Sociedad Química del Perú*, v. 79, p. 3 -12, 2013.

**Rev. Peruana de Med. Exp. y Salud Pública, PMID:22858765**

**2012**

Ortiz Cesar ; Lazo Fanny ; Bellido Candy ; **KOZLOVA, E. E. G.** ; Yarleque Armando. Variation of the enzymatic activity of *Bothrops atrox*. *Revista Peruana de Medicina Experimental y Salud Pública (Impresa)*, v. 29, p. 198-205, 2012.

## TEACHING

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**Assistant Professor**

**2014**

UFMG, Brazil.

Introduction to data mining techniques - Grad. School

**Professor assistant**

**2007-2012**

UNMSM, Perú.

Theoretical and experimental class presentations for Undergrad.

## COURSES & WORKSHOPS

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### Workshop

2015

*La Jolla Institute for Allergy and Immunology, California-USA.*

Workshop on Epitope Prediction and Databases - IEDB

### Short course

2014

*Universidade Estadual Paulista Júlio da Mesquita Filho, Brazil.*

2nd School of Molecular Biophysics

### Short course

2013

*IRV, Brazil.*

Environmental education with focus on venomous animals handling

### Short course

2011

*Universidad Peruana Cayetano Heredia, Perú.*

Introduction to Neurosciences

### Short course

2006

*In Vitro Perú, Perú.*

Instrumental implementation for a biotechnology laboratory

### Course

2003

*IBERFOP, Perú.*

Training on informatics and computer assembly

## REFERENCES

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<i>Name</i>	Prof. Daniel Santos Mansur
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<i>Name</i>	Prof. Ricardo Andrez Machado de Avila
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<i>Name</i>	Prof. Carlos Chavez Orlortegui
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