Edgar E. Gonzalez Kozlova, PhD

Curriculum Vitae

PERSONAL DETAILS

 $\begin{array}{lll} \textit{Address} & 128 \text{ St. Manhattan-NYC} \\ \textit{Phone} & +1 \ (917) \ 402\text{-}0926 \\ \textit{Email} & \texttt{eegonzalezk@gmail.com} \end{array}$

EDUCATION

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

DEVELOPMENT AND BIOINFORMATICS

Analysis Genome/Transcriptome, Single-cell, Protein and Molecular dynamics models.

DataMining Regressions, RandomForest, Bayes, SVM, SVD, SDA and Networks/graphs.

Programming Python, R, Shell/Bash and Perl.

Phylogenetics Mr.Bayes and PVclust.

Software R, Gromacs, PyMol, Modeller, JMol, blast, Knime, Matlab, LATEX

 $Emboss,\,Clustal,\,tcoffee,\,Star,\,FastaQC,\,Trinity,\,Spades,printseq\text{-lite}$

FeaturesCount and Jalview.

Servers Remote SSH, FTP, SunFire, Altix, PBS and LSF.

Wet-lab

Immunological ELISA, SPOT, Western Blot and bacterial cultures.

Molecular

Biology PCR, Plasmid purification, DNA-RNA extraction.

Biochemical Electrophoresis, AKTA-FPLC, 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

Post-Doc. 2018-present

Mt. Sinai, USA.

Department of Genetics and Genomics; Modeling sequencing data to profile molecular datasets. Assisting and and leading statistical genomics projects leveraging RNA-sequencing and Omics data.

Grantee. Post-Doc.

CAPES, LIDI, UFSC, Brazil.

Study of protein evolution, structure, and sequence of viral proteins (VLPs); Protein design and expression in bacterial systems; Proteomic, Genomic, Transcriptomic and Single cell 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 transcriptome analysis; SSH server support; and responsible for disposal of toxic residues, biosecurity, and keeper of project related animals.

Undergrad - Researcher

2007-2012

2016-2018

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.

Undergrad - 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

Article Title:

Scientific Reports, PMID: —

2018

KOZLOVA, E. E. G.; Loïc Cerf; Francisco Santos Schneider; Benjamin Thomas Viart; ...; Ricardo Andrez Machado-de-Ávila; Computational B-cell epitope identification and production of neutralizing murine antibodies against Atroxlysin-I.

Toxicon, PMID:29024770

2017

Dan Vivas-Ruiz; Fanny E Lazo, Ph. D; Gustavo A Sandoval , Msc; Ruperto Severino; \overline{E} dith \overline{F} Rodriguez, Msc; $\overline{KOZLOVA}$, \overline{E} . \overline{E} . \overline{G} .; Eladio \overline{F} Sánchez, Ph.D; Carlos Chávez-Olórtegui , Ph.D; Armando Yarlequé, 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

201.

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 Químic a del Perú, ISSN:1810-634X

2014

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

Revista de la Sociedad Químic 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

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

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

In Vitro Perú, Perú.

Instrumental implementation for a biotechnology laboratory

Course 2003

IBERFOP, Perú.

Training on informatics and computer assembly

REFERENCES

 $egin{array}{lll} Name & \operatorname{Prof. Bojan \ Losic} \\ Address & \operatorname{Mt \ Sinai, \ USA} \\ Phone & (212)\ 659-8511 \\ \end{array}$

Mail bojan.losic@mssm.edu

Name Prof. Daniel Santos Mansur

Address Universidade Federal de Santa Catarina, Brazil

 $\begin{array}{ll} Phone & +55 \; (48) \; 991801979 \\ Mail & {\tt mansurds@googlemail.com} \end{array}$

Name Prof. Ricardo Andrez Machado de Avila

Address Universidade do Extremo Sul Catarinense - UNESC

 $\begin{array}{ll} Phone & +55 \ (48) \ 3431\text{-}2757 \\ Mail & \texttt{r_andrez@yahoo.com.br} \end{array}$

Name Prof. Loic Cerf

Address Universidade Federal de Minas Gerais, Brazil

Mail lcerf@dcc.ufmg.br

Name Prof. Carlos Chavez Olortegui

Address Universidade Federal de Minas Gerais, Brazil

Mail olortegi@icb.ufmg.br