



Education

Ph.D. | Bioinformatics

Universidade Federal de Minas Gerais | 2016

BS | Biological Sciences

Universidad Nacional Mayor de San Marcos | 2012

Skills

Computing

Programming Languages

R • Python • Perl • Bash

IDEs • Markdowns

Nextflow • Matlab

Operating Systems

Linux • Mac • Windows

HPC Platforms

SSH • LSF • PBS • AWS

Bioinformatics

Genomics & Transcriptomics

RNA-seq (Single Cell & Bulk)

RRBS • WES • Microarrays

Structural Biology

PyMol & GROMACS

Sequence Alignment

STAR • Bowtie • BWA • GATK

Samtools • Blast • Clustal

Laboratory

Molecular Biology

PCR • RT-qPCR • Western Blot

ELISA • Immuno-Blotting (SPOT)

Proteomics

Electrophoresis • Chromatography

HLPC • FPLC • Cell Culture

Peptide synthesis • Vectors

Animal handling

Mice • Rats • Rabbits

Reptiles • Amphibians

Social

Languages

English (Fluent) • Spanish (Fluent)

Russian (Spoken) • Portuguese (Fluent)

Media

Reddit/Bioinformatics & Slack moderator

Co-director of Postdoc Executive

Committee

EMPLOYMENT

Icahn School of Medicine | Postdoctoral Fellow

Department of Genetics & Genomics Sciences

Lab of Dr. Bojan Losic | Oct 2018 - Present

- Modeling diverse sequencing data to profile molecular datasets.
- Leading and assisting epigenetic, transcriptomic and genomics projects by leveraging sequencing and clinical data.
- Continued and started collaborations on multiple projects with other departments and internally.

Universidade Federal de Santa Catarina | Postdoctoral Fellow

Department of Pharmacology & Microbiology

Lab of Dr. Daniel Mansur & Dr. Andre Bafica | Apr 2016 - Sep 2018

- 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 of samples infected with Dengue, Zika and Mycobacterium tuberculosis.

Universidade Federal de Minas Gerais | Ph.D. Student

Department of Immunology & Biochemistry

Lab of Dr. Carlos Chavez-Olortegui | May 2015 - Aug 2015

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

Universidad Nacional Mayor de San Marcos | Intern

Department of Biochemistry

Lab of Dr. Armando Yarleque | Apr 2005 - Aug 2012

- 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.

Museum of Natural History | Intern

Department of Herpetology

Lab of Dr. Cesar Aguilar | Apr 2005 - Aug 2012

- 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

AWARDS

AACR: Annual Meeting 2020

Scholar in training award and Short talk

Keystone: Advances in Cancer Immunotherapy 2020

Scholarship and eposter presentation



Teaching

Minicourse (2018) UNESCO, Brazil.
Bioinformatic tools for biomedical research.

Co-Mentor (2018) UFSC, Brazil.
Project: Co-evolution of Phages and Mycobacteria

Workshop (2018) UFSC, Brazil.
RNAseq dataset identification and expression analysis
<Link to Class Slides>

Workshop (2014) UFMG, Brazil.
Introduction to data mining techniques

Professor assistant (2007-2012) UNMSM, Perú.
Assisted with theoretical and experimental class presentations.

References

Prof. Bojan Losic | Icahn School of Medicine, NYC, USA
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Prof. Ricardo Andrez Machado de Avila | UNESCO, Brazil
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Prof. Loic Cerf | Universidade Federal de Minas Gerais, Brazil
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Prof. Carlos Chavez Olortegui | Universidade Federal de Minas Gerais, Brazil
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Collaboration

<Link to Network>

Publications

- **2020 Gastroenterology PMID:TBD** Von Felden J, KOZLOVA, EEG. , ..., Tewari A, Stolovitzky G, Losic B, Villanueva A. **Unannotated small RNA clusters in circulating extracellular vesicles detect early stage liver cancer**
- **2020 Hepatology PMID:TBD** Hernandez-Meza G, von Felden J, KOZLOVA, EEG. , ..., Losic B, Villanueva A. **DNA methylation profiling of human hepatocarcinogenesis**
- **2020 Nature Cancer PMID:TBD** Dogra N, KOZLOVA, EEG. , Losic B. and Stolovitzky, G. **exRNA Signatures in Extracellular Vesicles and their Tumor-Lineage from Prostate Cancer**
- **2020 Scientific Reports PMID:32193450** Adrian Bubie, KOZLOVA, EEG. , Nicholas Akers, Augusto Villanueva & Bojan Losic **Tumor fitness, immune exhaustion and clinical outcomes: impact of immune checkpoint inhibitors**
- **2020 BioRxiv. doi:10.1101/2020.04.29.066183.** Von Felden J, KOZLOVA, E.E.G. , ..., Tewari A, Stolovitzky G, Losic B, Villanueva A. **Unannotated small RNA clusters in circulating extracellular vesicles detect early stage liver cancer**
- **2020 Int J Biol Macromol. PMID:32169454** Vivas-Ruiz DE, Sandoval GA, KOZLOVA, E.E.G. , ... Sanchez EF. **Fibrinogen-clotting enzyme, pictobin, from Bothrops pictus snake venom. Structural and functional characterization.**
- **2019 Elife PMID:31637998** Delgobo M, Mendes DA, KOZLOVA, EEG. , Rocha EL, Rodrigues-Luiz GF, ... , Mansur DS, Van Weyenbergh J, Báfica A. **An evolutionary recent IFN/IL-6/CEBP axis is linked to monocyte expansion and tuberculosis severity in humans.**
- **2019 Biochimie PMID:30946947** Vivas-Ruiz DE, KOZLOVA, EEG. , Delgadillo J, Palermo PM, ... Chávez-Olortegui C5, Yarlequé A, Sanchez EF. **Biochemical and molecular characterization of the hyaluronidase from Bothrops atrox Peruvian snake venom.**
- **2019 Biochimie PMID:31476328** Medina-Santos R, ... , KOZLOVA, EEG. , Kalapothakis E, Chávez-Olortegui C. **Diversity of astacin-like metalloproteases identified by transcriptomic analysis in Peruvian Loxosceles laeta spider venom and in vitro activity characterization.**
- **2019 BioRxiv. https://doi.org/10.1101/784678** Constanza Eleonora Espada, Lummertz da Rocha, ... KOZLOVA, EEG. , ... André Báfica, Daniel Santos Mansur **Flaviviruses exploit fine-tuning of the interferon response to promote replication**
- **2018 Scientific Reports PMID:30297733** KOZLOVA, EEG. ; 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.**
- **2017 Toxicon PMID:29024770** Dan Vivas-Ruiz; ... , KOZLOVA, EEG. ; Eladio F Sánchez; Carlos Chávez-Olortegui; Armando Yarlequé; **Biochemical, biological and molecular characterization of a new L-Amino acid oxidase purified from Bothrops pictus Peruvian snake venom.**
- **2016 Oxford Bioinformatics PMID:26787662** VIART, B. ; KOZLOVA, EEG. ... 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)**
- **2015 BMC Bioinformatics PMID:26696329** KOZLOVA, EEG. ; VIART, B. T. ; AVILA, R. A. M. ; FELICORI, L. ; Chávez -Olortegui C. **Classification epitopes in groups based on their protein family. BMC Bioinformatics, 2015.**
- **2014 Revista de la Sociedad Química a del Perú, ISSN:1810-634X** KOZLOVA, EEG. ; ... Yarleque. A. **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.**
- <Link to full list of publications>

