# Andree Valle Campos

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Systems developmental biology. Quantitative and Bioengineering approaches. Interests

Data science training with evidence-based best-practices. Open science.

Master of Science in Epidemiological Research 2018-2018 **EDUCATION** 

Universidad Peruana Cayetano Heredia (UPCH), Lima-Peru

Rank: Top fifth among 28 students.

2011-2015 Bachelor of Science in Genetics and Biotechnology

Universidad Nacional Mayor de San Marcos (UNMSM), Lima-Peru

Rank: Top third at the 4th term among 30 students.

National Center for Epidemiology (CDC Peru) 2019-2020. Researcher Affiliations

Epidemiological Research and Surveillance Group, Ministry of Health.

2017-2019 Universidad Peruana Cayetano Heredia (UPCH), Peru. Intern

Emerge, Emergent Diseases and Climate Change Research Unit.

2016-2017 Universidad Nacional de la Amazonía Peruana (UNAP). Peru. Consultant

Fundación para el Desarrollo Sostenible de la Amazonía Baja.

2015-2016 U.S. Naval Medical Research Unit Six (NAMRU-6), Peru. Intern

Dept. of Parasitology, Div. of Immunology and Vaccine Development.

## **Publications** (N=8)

#### Peer-reviewed (n=6)

-Reyes-Vega MF, Soto-Cabezas MG, Cárdenas F, Martel KS, Valle A, et al. "SARS-CoV-2 prevalence associated to low socioeconomic status and overcrowding in an LMIC megacity: A population-based -Gunderson AK, Kumar RE, Recalde-Coronel C, Vasco LE, Valle-Campos A, et al. "Malaria Transmission and Spillover across the Peru-Ecuador Border: A Spatiotemporal Analysis". Int. J. Environ. Res. Public Health 2020, 17, 7434. doi: 10.3390/ijerph17207434 2.

-Quispe AM, Pinto DF, Huamán MR, Bueno GM, & Valle-Campos A. ["Quantitative Methodologies: Sample size calculation with STATA and R."] Revista del Cuerpo Médico del HNAAA, 2020, 13(1), 78-83. doi: 10.35434/remhnaaa.2020.131.627 C.

-Munayco CV, Tariq A, Rothenberg R, Soto-Cabezas MG, Reyes MF, Valle A., et al. "Early transmission dynamics of COVID-19 in a southern hemisphere setting: Lima-Peru: February 29th-March 30th, 2020.". Infectious Disease Modelling, 2020, 5, 338 - 345. doi: 10.1016/j.idm.2020.05.001 \(\mathref{\texts}\).

-Loyola S., Valle A., Montero S. and Carrasco-Escobar G. ["Recommendations to properly describe a COVID-19 epidemic curve."] Revista Peruana de Medicina Experimental y Salud Pública, 2020, 37(2). doi: 10.17843/rpmesp.2020.372.5461  $\Box$ .

-Saavedra-Langer R., Marapara J., Valle-Campos A., et al. "IgG subclass responses to excretedsecreted antigens of *Plasmodium falciparum* in a low transmission malaria community of the Peruvian Amazon". Malaria journal, 2018, 17(1), 328. doi: 10.1186/s12936-018-2471-6 C.

#### Non-peer-reviewed (n=2)

-[Opinion] Carrasco-Escobar G, Incio J, Valle A., Martínez JJ, Prochazka M, Ugarte C. ["Data and Transparency to fight the coronavirus."] Ojo Público, 2020. url: ojo-publico.com ♂.

-[Editorial] Valle-Campos A. ["Health Data Science: Applications at the Peruvian Center for Epidemiology, Prevention and Disease Control, CDC-Peru."] Boletín Epidemiológico del Perú, 2019, 18(49), 1245. doi: 10.5281/zenodo.4014211 ♂.

Grants. Awards AND RECOGNITIONS Scholarship. Emerge Training Grant NIH/FIC TG D43 TW007393 2018 USD 10.644 Grant. Undergraduate research: Camelid Reproduction Group - UNMSM USD 500 2014

Ranked 1<sup>st</sup>. UPCH X Summer Course on Molecular Biology (40 students) 2013 2011

Ranked 1<sup>st</sup>. UNMSM Admission Test to Basic Sciences (1000 applicants)

### Computational SKILLS

Statistical programming: R (fluent), package developer: serosurvey, covid19viz, epihelper. Programming Language: Bash (Unix shell, fluent), Python (basic), Stata (fluent).

OS, Text editor, & more: GNU/Linux (Ubuntu). LATEX, R Markdown. SublimeText. Git.

Conference Presentations	serosurvey: Serological Surveys and Prevalence Estimation Under Misclassification Elevator pitch at the useR! Conference. Online. $\Omega$	<b>a.</b> 2021
	[Epidemiological analysis of the epidemic of Guillain Barré Syndrome in Peru.] Poster presentation at the INS International Scientific Congress. Lima, Peru.	2019
	Human mobility and malaria history in a periurban community in Iquitos, Peru. Poster presentation at the ASTMH Annual Meeting. Maryland, USA. •	2019
	In vitro effect of ELF Magnetic Field on the sperm motility of Alpacas Poster, Annual Meeting of the Bioelectromagnetics Society, BioEM2015. Monterey, USA.	2015
Workshop Instructor	Outbreak Analytics and Modelling for Public Health, Colombia-Peru 2 9 hours Part of organizing committee. Workshop coordinator. Tutorial contributor. 100 students.	2021
	[Basic R applied to disease surveillance and outbreak analysis] O 6 hours Introduction to R projects and ggplot2 graphics for Ministry of Health personel. 30 students.	2021
	[Epidemiological analysis using R] • 4 hours Applications to case-control, cohort and time to event study designs. 30 students.	2019
	[Introduction to Inferential Statistics for biologist] O 6 hours Introduction to R, Linear models and Multiple comparison. 40 students.	2019
	[Reproducible science and Microarray analysis] © 8 hours Designs, statistics and visualizations with Bioconductor and Tidyverse. 50/20 students.	017/19
LECTURES	[Data analysis in epidemiological surveillance I: time, space, person] 2 2 hours Descriptive and statistical analysis of outbreaks. 35 grad students.	2021
	[Visualizing public health and field epidemiology data] 2 2 hours Dashboards as tools for decision making in public health. 30 grad students.	2021
	<b>Teacher Assistant</b> . At the Master's of Science in Epidemiological Research. 2 1 year In charge of practical sessions, monthly reviews, and test correction. 48 grad students.	2019
	[On #tardigate and Horizontal Gene Transfer bioinformatics] 2 hours Review of the controversy around the first tardigrade genome. 5 undergrad students.	2016
	[Gene Regulatory Networks: Topology and Dynamics] © 3 hours Applications from Graph Theory and Finite Automata. 10 undergrad students.	2015-18
Talks	[Analysis of #multiple epidemics and prevalences with R and purrr.] 2 50 part.	2020
	[Hypothesis testing with nonparametric statistical methods.] 2 30 participants.	2020
	[How to use R for Epidemiology at CDC Peru?] 25 participants.	2019
SHORT COURSES	[Online teaching 101] [How to teach programming online] [Techniques to design programming courses and evaluate students. One day.	2021
	Outbreak Analytics and Modelling for Public Health, Colombia & O Dynamic modeling in response to outbreaks and interventions. One week.	2019
	CODATA-RDA Research Data Science School 2017 and 2020 Data management, open science, machine learning and infrastructure. Two weeks.	017/20
	[Minicourse on Spatio-Temporal Models in Epidemiology]  Theory and practice of areal data, point pattern analysis and geostatistics. Two days.	2017
	Working with Parasite Database Resources © Genomic, proteomic, metabolomic applications of eupathdb.org. One week.	2016
	School on Physics Applications in Biology © Game theory, non-linear dynamics and statistical physics. Three week.	2016
	V Southern-Summer School on Mathematical Biology ♂ Population dynamics modeling in ecology and epidemiology. One week.	2016
CERTIFICATIONS	English: TOEFL score 88 (read:23, listen:21, speak:20, write:24).  Biomedical Research - Basic/Refresher: CITI program.  Responsible Conduct in Research: QUIPU program - Peru.  Test date: 14 D  Expiration date: 04 Ma  Completition date: 05 Ma	y 2021