# Andree Valle Campos, MSc(c)

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Lima - Peru

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| **INTERESTS** | Quantitative and systems developmental biology. Causal questions for hypothetical interventions. Reproducible and open science. Biostatistics. Bioengineering approaches. Best-practices of teaching. |

**EDUCATION**

| 2018-2018 | **Master of Science in Epidemiological Research** |
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| | 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. |

**AFFILIATIONS**

| 2019-2020. | **National Center for Epidemiology (CDC Peru)** | **Researcher** |
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| | 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, <u>Valle A</u>, et al. "SARS-CoV-2 prevalence associated to low socioeconomic status and overcrowding in an LMIC megacity: A population-based seroepidemiological survey in Lima, Peru". *EClinicalMedicine.* doi: 10.1016/j.eclinm.2021.100801 ☒ .

-Gunderson AK, Kumar RE, Recalde-Coronel C, Vasco LE, <u>Valle-Campos A</u>, 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 ☒ .

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

-Munayco CV, Tariq A, Rothenberg R, Soto-Cabezas MG, Reyes MF, <u>Valle A.</u>, 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 ☒ .

-Loyola S., <u>Valle A.</u>, Montero S. and Carrasco-Escobar G. ["Recomendations 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 ☒ .

-Saavedra-Langer R., Marapara J., <u>Valle-Campos A.</u>, et al. "IgG subclass responses to excreted-secreted 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 ☒ .

**At Newsletters (n=2)**

-[Opinion] Carrasco-Escobar G, Incio J, <u>Valle A.</u>, Martínez JJ, Prochazka M, Ugarte C. ["Data and Transparency to fight against to coronavirus."] *Ojo Público, 2020.* url: ojo-publico.com ☒ .

-[Editorial] <u>Valle-Campos A.</u> ["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**

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| **Scholarship**. Emerge Training Grant NIH/FIC TG D43 TW007393 | 2018 | USD 10,644 |
| **Grant**. Undergraduate research: Camelid Reproduction Group - UNMSM | 2014 | USD 500 |
| **Ranked 1st**. UPCH X Summer Course on Molecular Biology (40 students) | 2013 | |
| **Ranked 1st**. UNMSM Admission Test to Basic Sciences (1000 applicants) | 2011 | |

**COMPUTATIONAL SKILLS**

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| **Statistical programming**: | R (developer of work-in-progress packages: serosurvey, and more). |
| **Programming Language**: | Bash (Unix shell, fluent), Python (basic), Stata (fluent). |
| **OS, Text editor, & more**: | GNU/Linux (Ubuntu). LaTeX, R Markdown. SublimeText. Git. |

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| CONFERENCE PARTICIPANT | **serosurvey: Serological Surveys and Prevalence Estimation Under Misclassification.** Elevator pitch at the useR! Conference. ♄ ⌕ | 2021 |
| | **[Epidemiological analysis of the epidemic of Guillain Barré Syndrome in Peru.]** Poster presentation at the INS International Scientific Congress. ♄ ⌕ | 2019 |
| | **Human mobility and malaria history in a periurban community in Iquitos, Peru.** Poster presentation at the ASTMH Annual Meeting. ♄ ⌕ | 2019 |
| WORKSHOP INSTRUCTOR | **Outbreak Analytics and Modelling for Public Health** ⌕ 🐦 *9 hours* Part of organizing committee. Workshop coordinator. Tutorial contributor. *100 students.* | 2021 |
| | **[Basic R applied to disease surveillance and outbreak analysis]** ♄ *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]** ♄ *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.* | 2017/19 |
| TEACHER AND LECTURER | **[Data analysis in epidemiological surveillance II: spatial analysis]** ⌕ *2 hours* Generate maps with risk estimates using R. *35 grad students.* | 2021 |
| | **[Data analysis in epidemiological surveillance I: time, space, person]** ⌕ *2 hours* Descriptive and statistical analysis of outbreaks. *35 grad students.* | 2021 |
| | **[Visualizing public health and field epidemiology data]** ⌕ *2 hours* Dashboards as tools for decision making in public health. *30 grad students.* | 2021 |
| | **Teacher Assistant**. At the Master's of Science in Epidemiological Research. ⌕ *1 year* In charge of practical sessions, monthly reviews, and test correction. *48 grad students.* | 2019 |
| | **[Gene Regulatory Networks: Topology and Dynamics]** ⌕ *3 hours* Applications from Graph Theory and Finite Automata. *10 undergrad students.* | 2015-18 |
| | **[On #tardigate and Horizontal Gene Transfer bioinformatics]** ⌕ *2 hours* Review of the controversy around the first tardigrade genome. *5 undergrad students.* | 2016 |
| TALKS | **[Introduction to spatial analysis.]** ⌕ *30 participants.* | 2021 |
| | **[Analysis of #multiple epidemics and prevalences with R and purrr.]** ⌕ *50 part.* | 2020 |
| | **[Hypothesis testing with nonparametric statistical methods.]** ⌕ *30 participants.* | 2020 |
| | **[How to use R in Epidemiology?]** ⌕ *25 participants.* | 2019 |
| TRAININGS WITH SCHOLARSHIP | **[How to teach programming online]** ⌕ Techniques to design programming courses and evaluate students. One day. | 2021 |
| | **Outbreak Analytics and Modelling for Public Health** ⌕ ♄ 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. | 2017/20 |
| | **[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 |
| | **V Southern-Summer School on Mathematical Biology** ⌕ Population dynamics modeling in ecology and epidemiology. One week. | 2016 |
| CERTIFICATIONS | **English**: TOEFL score 88 (21/23/20/24). Test date: 14 Dic 2020 **Biomedical Research - Basic/Refresher**: CITI program. Expiration date: 04 May 2021 **Responsible Conduct in Research**: QUIPU program - Peru. Completition date: 05 May 2018 | |