

UNIVERSIDAD PERUANA CAYETANO HEREDIA

Research projects financed by federal funds from the United States of America, through contracts and subcontracts signed between Universidad Peruana Cayetano Heredia and the National Institute of Health (NIH), Center for Disease Control (CDC) and universities of the States of America, respectively, for the period from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

Research projects financed by federal funds from the United States of America, through contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the National Institute of Health (NIH), Center for Disease Control (CDC) and universities of the States United of America.

Audit report to the Expenditure Statements for the period from January 1, 2022 to December 31, 2022.

Content

I. Independent auditors' report

II. Introduction

III. General information on Research Projects

- 3.1. Legal constitution of the Peruvian University Cayetano Heredia.
- 3.2. Financing of Research Projects.
- 3.3. Consolidated statement of expenses of the Research Projects.
- 3.4. Individual statements of expenses of the Research Projects.

IV. Background and scope of the work

V. Financial, accounting and administrative verification

- 5.1. Main accounting policies.
- 5.2. Expenditures review of Research Projects.

VI. Internal control

VII. Compliance with the terms of contracts, subcontracts, laws and applicable regulations

VIII. Opportunities of improvement and recommendations

IX. Follow-up on recommendations from previous years

US\$ = U.S. dollar

I. INDEPENDENT AUDITOR'S REPORT

To the members of the University Council of the Universidad Peruana Cayetano Heredia

1. We have audited the Statements of Expenditures of eighty-two Research projects (hereinafter, the Projects) of **Universidad Peruana Cayetano Heredia** (an educational non-profit entity), which are financed by federal funds from the United States of America. America, through contracts and subcontracts between the Universidad Peruana Cayetano Heredia and the National Institute of Health (hereinafter NIH), the Center for Disease Control and various universities in the United States of America, respectively, for the period from 1 from January 2022 to December 31, 2022.

Responsibility of the Administration Directorate General for the Statements of Expenditures

2. The Administration Directorate General of **Universidad Peruana Cayetano Heredia** is responsible for the preparation and reasonable presentation of these Statements of Expenditures in accordance with the execution/expenditure basis. This responsibility includes designing, implementing, and maintaining the internal control relevant to the preparation and fairly presentation of the Statements of Expenditures that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

3. Our responsibility is to express an opinion on the Statements of Expenditures of each Research Project based on our audit. Our audit was performed in accordance with the Generally Accepted Government Auditing Standards of the United States of America (GAGAS), the Compliance Supplement of the Office of Management and Budget (OMB) of the United States of America. – Circular A 133 and the International Auditing Standards (IAS). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Statements of Expenditures are free from material misstatement.

Independent auditors' opinion (continued)

Internal Control Compliance Report

4. Administration Directorate General of **Universidad Peruana Cayetano Heredia** is responsible for establishing and keeping an effective internal control. When planning and performing our audit, we consider the internal control that may have a direct and material effect on the expenditures to determine the appropriate procedures in the performance of our review, based on which we will be able to provide an opinion regarding the compliance of the internal control in accordance with Circular OMB A-133.

In our opinion, based on our review of internal control we do not identify any significant deficiencies in accordance with Circular OMB A-133; for the period from 1 January 2022 to 31 December 2022.

Opinion

5. In our opinion, the Statements of Expenditures present fairly, in all material aspects, the financial position of the Research Projects, executed by Universidad Peruana Cayetano Heredia and funded directly by National Institute of Health (NIH) and indirectly by NIH through Universities in the United States of America, these are required by the federal entity of the United States of America - National Institute of Health (NIH) based in Circular OMB A-133, for the period from January 1, 2022 to December 31, 2022.

Countersigned by:

Panez, Chacaliaza and Associates Civil Society of RL



Marco Morales (Partner)
Peruvian Certified Public Accountant
Registration No. 41412

July 25, 2023
Lima, Peru

UNIVERSIDAD PERUANA CAYETANO HEREDIA

Notes to the Statements of Expenditures of the Research Projects financed by federal funds of the United States of America, through direct contracts with National Institute of Health (NIH) and indirectly with NIH through universities of the United States of America.

For the period from January 1, 2022 to December 31, 2022

II. INTRODUCTION

This report presents the audit results of the following Research Projects, for the period from January 1, 2022 to December 31, 2022:

Project 1: Addressing hypertension and diabetes through community-engaged systems in Puno, Peru (Andes study).

Project 2: Program for advanced research capacities for AIDS in Peru (Paracas) harnessing implementation science.

Project 3: Development and validation of an agent-based model to promote evidence-based control of taenia solium cysticercosis.

Project 4: Project of febrile illness surveillance in the Andean and Amazon countries (Pisaac).

Project 5: Implementation of ring strategy for community engaged control of neurocysticercosis.

Project 6: Peru infectious diseases epidemiology research training consortium.

Project 7: Improving diagnostic and management tools for neurocysticercosis (Peru -JHU TMRC Program).

Project 8: Accuracy of novel diagnostic tests for detection of tuberculosis in adults: fend for TB

Project 9: Enhancing global health security.

Project 10: Urine screening for early detection of subarachnoid neurocysticercosis.

Project 11: Combined albendazole and praziquantel in subarachnoid ncc, ccc, lead application.

Project 12: Cooperasalud: technical support for the consolidation of hiv prevention and control in the peruvian armed forces.

Project 13: An immune system for the city: a new paradigm for control of urban disease vectors.

Project 14: Improving national knowledge and awareness of fungal infections in Peru.

Project 15: Transmission dynamics of residual malaria in the amazon: defining a roadmap to malaria elimination.

Project 16: Training in infectious diseases in Peru - time for implementation research.

Project 17: Syphilis immunology and biology to improve clinical management and vaccine design.

Project 18: Deep VZN - Discovery & Exploration of emerging pathogens – viral zoono.

Project 19: Alternative therapeutic approaches for the control of brain inflammation secondary to anthelmintic therapy in neurocysticercosis using a novel experimental pig model.

Project 20: Understanding immune modulation in taenia solium neurocysticercosis by using a novel postoncosphere in vitro model.

Project 21: Patient-Centered intervention to prevent tuberculosis among children < 5 years old.

Project 22: Closing the gap between the identification and treatment of cervical anomalies in Lima.

Project 23: A mobile phone short message service intervention to increase retention in HIV (Weltel Peru).

Project 24: Spatially responsive mass vaccination strategies for urban rabies.

Project 25: The effect of strongyloides stercoralis on HTLV-1 disease progression.

Project 26: Proteome-wide characterization of t cell epitopes from mycobacterium tuberculosis in vaccination and active infection.

Project 27: Using the mycobacterium tuberculosis genome to predict tuberculosis pathology, drug resistance acquisition and identify community transmission sites.

- Project 28: Markers of triclabendazole resistant fasciolosis the highlands of Peru.
- Project 29: Immunology of asymptomatic malaria and the effects of immunity on plasmodium transmission.
- Project 30: HIV risk and psychosocial health among transgender women in Peru
- Project 31: Gut microbial and metabolic mediators of rotavirus vaccine response
- Project 32: Using burden of treatment as a clinical indicator of barriers to multimorbidity management in Peru: A mixed methods.
- Project 33: Clinical trial comparing the effectiveness of cefixime versus penicillin G for treatment of early SY.
- Project 34: Multidisciplinary training program on neuropsychiatry and behavioral disorders in first nations (neufin): Neufin 2.
- Project 35: Spatiotemporal adaptation of anopheles darling in diverse ecological settings.
- Project 36: How land use change transforms the landscape of vector-borne disease.
- Project 37: 1/2 - regional geohealth hub centered in Peru.
- Project 38: HIV prevention and care for peruvian msm and transgender women.
- Project 39: Predictors of cardiomyopathy progression in a chagas disease cohort in Bolivia.
- Project 40: Infectious diseases training program in Bolivia: South - South training with Peru.
- Project 41: Coflu - Natural history of SARS-COV-2 in comparison with the virus of
- Project 42: D43 Chronic Non-communicable CVDS and comorbidities in Peru.
- Project 43: Translational research development for endemic infectious diseases of Amazonia.
- Project 44: Prevalence and incidence of neonatal HSV (Herpes Simplex) in pre-term infants.
- Project 45: Planning an MD-MSc combined degree program focused on translational research to build the next generation of Physician-Scientist in Peru.
- Project 46: Novel nanoparticle diagnostics for Cerebral toxoplasmosis and Chagas in HIV patients living in Latin America.
- Project 47: Enabling infectious disease research capacity in the Peruvian Amazon.
- Project 48: One-health approach to study human Fasciola Hepatica transmission and inform strategic control.
- Project 49: The feeding behavior with sugars of the Malaria vector Nyssorhynchus Darling and the development of attractive and effective toxic sugar baits (ATSB) to increase the success of the intervention in Peru.
- Project 50: Improving response to Malaria outbreaks in Amazon-basin countries.
- Project 51: Genomic epidemiology of campylobacter in poultry to enable the effective control of human campylobacteriosis in a middle-income country.
- Project 52: Research training in chronic, non-communicable respiratory diseases in Peru.
- Project 53: Knowledge, practices, and attitudes towards children's oral health
- Project 54: Plasmodium infection decreases pre-existing Covid-19 antibody titers and compromises immunity in communities at high risk for Malaria in the Peruvian Amazon.
- Project 55: CCASANET 2021-2026
- Project 56: A prospective study of Acute Flaccid Myelitis (AFM) to define natural.
- Project 57: University of California global health institute program for fellows and scholars.
- Project 58: Ictus: Interdisciplinary cerebrovascular diseases training program in South America.
- Project 59: Core B Data Management
- Project 60: Acceptability, feasibility, and preliminary impact of a web-based, HIV prevention toolkit with Cisge.
- Project 61: Evaluation of urgencies, emergencies, and essential neurosurgical care in Peru.
- Project 62: Combined albendazole plus praziquantel in subarachnoid NCC, DCC application.
- Project 63: Integrating smartphone photography for Trachoma, smartphone visual acuity assessment, and mobile autorefraction to enhance community-based public health monitoring.
- Project 64: Orphan GPCR ligands from ethnobotanical sources as novel drugs for mental disorders.
- Project 65: CCASANET: Caribbean, Central and South America Network 2016-2021.
- Project 66: How the Covid-19 pandemic affected the life and work of ACS.
- Project 67: CCASANET 2020-2022

Project 68: Statistical methods for correlated outcome and covariate errors in studies of HIV/AIDS.

Project 69: Colonization of the intestine with pathogens with antimicrobial resistance.

Project 70: Impact of El Niño on Environmental Mercury and Human Exposure

Project 71: Long-term mental health symptoms and psychological rehabilitation among peruvian Covid-19 survivors.

Project 72: 1/2-regional geohealth hub centered in Peru.

Project 73: Tuberculosis research project UPCH-OSU.

Project 74: Chaka: Strengthening research support structures in the Andean region.

Project 75: Cystic Hepatic Echinococcosis: Preclinical evaluation of a new percutaneous treatment approach.

Project 76: Improving the diagnosis of HIV-associated neurocognitive disorder (HAND) in Latin America: A multimodal approach to HAND in Peru.

Project 77: Population assessment of Alzheimer's and related dementias in rural northern Peru.

Project 78: The effects of Covid-19 on adolescents in the Loreto Amazon Region: How the pandemic has impacted educational achievement and their sexual and reproductive health.

Project 79: Peruvian/Brazilian Amazon center of excellence in Malaria (transmission dynamics of residual Malaria in the Amazon).

Project 80: Isolation and identification of CXCR4 and CXCR7 agonists from traditional phytopharmaceuticals as potential novel drugs for mental disorders.

Project 81: Syphilis Immunology and biology to improve clinical management and vaccine design.

Project 82: Household air pollution and health: A multicountry LPG intervention trial.

III. GENERAL INFORMATION ON RESEARCH PROJECTS

3.1 Legal constitution of Universidad Peruana Cayetano Heredia

The Universidad Peruana Cayetano Heredia was created by Supreme Decree No. 018 dated September 22, 1961. It is a non-state and non-profit private university. Its main purpose is to provide superior education, promote and disclose scientific research in all fields and prepare students in the professional field, as well as promoting a university extension labor. It is governed by the new University Law 30220 and its complementary standards, bylaws, regulations, and leadership.

3.2 Financing of Research Projects

The financing of these Research Projects comes from federal funds of the United States of America, specifically from the National Institute of Health - NIH, through contracts and subcontracts with Universidad Peruana Cayetano Heredia. These financings are performed in two ways: directly between the UPCH and the NIH; and indirectly, through a subcontract where the NIH finances a university in the United States of America and this in turn subcontracts the research services of the UPCH. The period of our review is from January 1, 2022 to December 31, 2022.

3.3 Consolidated Statements of expenses of the Research Projects

We present the consolidated statement of Expenditures of the Research Projects (*) as follows.

(*) According to the detailed provided in the Research Projects, they have different annual budget periods, therefore, it is not possible to perform a comparison between budget versus execution. Consequently, we present the expenses executed in accordance to the previously indicated in the Terms of Reference in the period from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total	
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services		
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 1	62,682	-	-	10,788	611,564	19,101	64,182	-	9,430	777,747
Project 2	118,890	9,459	193,315		129,737	1,003	7,101	-	3,335	462,840
Project 3	147,454	1,501	1,580	78,967	-	38,617	126,529	32,831	31,489	458,968
Project 4	219,067	29,811	5,903	136,543	-	2,132	19,138	39,711	234	452,539
Project 5	220,060	-	6,702	38,703	-	20,466	60,465	33,308	31,052	410,756
Project 6	77,569	2,050	193,853	24,556	9,837	26,607	22,309	3,193	16,858	376,832
Project 7	187,502	3,000	1,030	38,676	64,435	2,948	31,074	3,668	21,084	353,417
Project 8	129,646	-	-	18,930	-	2,076	39,067	82,280	20,244	292,243
Project 9	229,219	-	-	570	-	24,070	9,094	30	11,869	274,852
Project 10	105,911	236	532	33,037	-	22,504	46,980	25,607	21,714	256,521
Project 11	183,372	2,019	285	3,404	20,000	558	4,605	11,694	21,031	246,968
Project 12	102,155	18,751	6,165	50,025	-	13,202	27,741	3,904	12,011	233,954
Project 13	105,907	42,471	50	13,447	-	6,675	48,361	-	12,924	229,835
Project 14	167,774	10,338	-	17,567	-	4,322	4,857	8,479	13,340	226,677
Project 15	127,463	5,400	-	26,938	-	7,377	30,561	4,149	22,223	224,111

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total	
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services		
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
project 16	54,855	3,000	66,531	33,574	-	7,608	16,320	8,990	9,950	200,828
Project 17	109,911	602	-	11,997	-	-	35,547	14,088	18,648	190,793
Project 18	164,003	1,867	700	-	-	2,290	5,122	925	9,026	183,933
Project 19	84,120	4,782	335	28,834	-	7,493	17,625	5,178	13,023	161,390
Project 20	105,695	-	-	31,657	-	6,227	2,087	1,746	10,254	157,666
Project 21	133,262	-	61	2,005	-	-	5,934	132	10,765	152,159
Project 22	71,128	1,628	6,300	27,225	-	11,544	16,670	606	9,728	144,829
Project 23	119,598	3,254	5,000	53	-	-	9,408	664	170	138,147
Project 24	81,132	11,000	600	5,821	-	2,899	8,383	-	7,474	117,309
Project 25	90,466	3,000	-	1,608	-	-	4,110	8,143	9,059	116,386
Project 26	64,663	-	-	8,924	-	-	15,286	12,420	6,837	108,130
Project 27	42,169	379	-	18,382	-	-	16,569	20,500	4,074	102,073
Project 28	50,057	9,900	-	19,960	-	2,852	10,935	-	3,417	97,121
Project 29	45,313	1,397	-	8,658	-	11,694	13,988	5,809	8,086	94,945
Project 30	52,924	386	427	11,463	-	-	7,232	15,947	88,379	93,173

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total	
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services		
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 31	70,692	-	-	3,604	-	-	8,274	4,272	4,478	91,320
Project 32	60,903	17,240	-	-	-	1,952	916	823	8,269	90,103
Project 33	57,816	10,000	-	321	-	-	15,345	-	4,525	88,007
Project 34	31,110	1,980	40,539	120	-	3,193	2,381	-	7,418	86,741
Project 35	44,517	-	-	7,146	-	7,157	18,316	-	9,246	86,382
Project 36	28,676	-	-	13,263	-	15,576	11,646	1,039	4,655	74,855
Project 37	46,377	3,000	511	17,764	-	2,955	-	-	2,010	72,617
Project 38	54,966	-	-	-	-	-	1,766	-	2,909	59,641
Project 39	40,820	-	-	13,218	-	-	370	877	4,102	59,387
Project 40	21,728	-	14,560	-	-	2,970	14,878	-	3,623	57,759
Project 41	34,959	-	-	589	-	-	4,323	11,617	2,775	54,263
Project 42	28,386	-	20,769	-	-	-	79	-	2,303	51,537
Project 43	1,798	-	-	11,334	-	1,206	30,531	-	6,634	51,503
Project 44	41,076	-	-	503	-	-	415	-	2,779	44,773
Project 45	37,738	-	-	-	-	-	961	-	5,782	44,481

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total	
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services		
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 46	20,147	-	705	12,627	-	1,738	6,311	-	1,712	43,240
Project 47	30,522	-	-	6,559	-	-	3,000	-	1,985	42,066
Project 48	21,512	-	-	8,925	-	3,016	578	-	7,287	41,318
Project 49	33,860	-	-	3,795	-	-	-	-	2,499	40,154
Project 50	23,919	-	-	185	-	8,653	5,283	-	1,921	39,961
Project 51	32,872	-	-	637	-	4,236	-	-	2,055	39,800
Project 52	9,675	-	26,188	1,403	-	-	150	-	2,377	39,793
Project 53	707	2,719	22,362	125	-	4,072	7,443	-	1,345	38,773
Project 54	31,483	-	35	3,314	-	328	1,740	16	1,771	38,687
Project 55	29,603	4,000	-	1,116	-	-	1,844	-	-	36,563
Project 56	23,910	209	-	-	-	-	7,898	126	692	32,835
Project 57	4,925	2,400	1,988	309	-	542	15,713	1,535	1,374	28,786
Project 58	22,973	-	-	-	-	3,429	47	-	847	27,296
Project 59	10,965	-	-	2,610	-	1,835	3,573	-	2,271	21,254
Project 60	12,017	-	-	136	-	-	6,928	879	263	20,223

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total	
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services		
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 61	7,554	-	-	734	-	198	4,743	5,066	25	18,320
Project 62	15,818	-	-	-	-	-	1,667	-	86	17,571
Project 63	16,797	-	-	-	-	-	-	-	412	17,209
Project 64	7,427	-	-	1,587	-	5,841	221	-	1,887	16,963
Project 65	15,513	-	-	-	-	-	16	-	518	16,047
Project 66	2,742	1,612	-	176	-	6,074	2,441	-	10	13,055
Project 67	1,963	4,250	-	2,368	-	-	8	-	10	8,599
Project 68	6,532	-	-	-	-	-	-	-	508	7,040
Project 69	2,822	-	-	3,414	-	-	172	-	419	6,827
Project 70	5,271	-	-	147	-	12	124	-	331	5,885
Project 71	-	-	5,760	-	-	-	-	-	-	5,760
Project 72	4,461	-	-	-	-	-	671	-	582	5,714
Project 73	5,589	-	-	-	-	-	-	-	-	5,589
Project 74	1,879	-	-	25	-	-	1	-	2,328	4,233
Project 75	-	-	-	-	-	-	-	-	3,765	3,765

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects financed by federal funds of the United States of America, under contracts and subcontracts signed between the Universidad Peruana Cayetano Heredia and the financing entities.

For the period from January 1, 2022 to December 31, 2022.

	Direct Costs							Indirect costs	Total
	Employee Benefits	Consulting	Training	Equipment and/or supplies	Contract expenses	Travel expenses	Others	Laboratory and patient care services	
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$
Research Projects									
Project 76	-	-	-	650	-	-	2,113	-	2,763
Project 77	1,819	-	-	-	-	-	-	317	2,136
Project 78	-	-	-	-	-	1,836	154	10	2,000
Project 79	-	-	-	-	-	-	745	209	954
Project 80	-	-	-	289	-	-	-	-	289
Project 81	82	-	-	-	-	-	94	-	176
Project 82	-	-	-	-	-	-	-	57	57

3.4 States of individual expenses of the Research Projects

The Statements of expenditure corresponding to the management from January 1, 2022 to December 31, 2022 financed directly or indirectly by the NIH, are the following:

Project 1**UNIVERSIDAD PERUANA CAYETANO HEREDIA****STATEMENT OF EXPENDITURE****Addressing hypertension and diabetes through community-engaged systems in Puno, Peru (Andes study)**

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health -NIH.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Hartinger Peña, Stella Maria.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	62,682
Consulting	-
Training	-
Equipment and/or supplies	10,788
Contract expenses	611,564
Equipment and/or supplies	19,101
Others	64,182
Laboratory and patient care services	-
Total direct costs	768,317
Total Indirect Costs – Overhead	9,430
Total Costs	777,747

Project execution period: From September 2020 to August 2022.

Project General Objective: The objective of this research is to design and evaluate the effectiveness of a multi-component strategy for the diagnosis and treatment of hypertension (HBP) and type 2 diabetes (T2D). ANDES' multicomponent strategy is made up of 1) health campaigns with events that offer AHT/T2D diagnosis in the community and 2) follow-up led by community social actors to improve adherence to treatment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 2

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Program for advanced research capacities for AIDS in Peru (Paracas) harnessing implementation science

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health -NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. González Lagos, Elsa.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	118,890
Consulting	9,459
Training	193,315
Equipment and/or supplies	-
Contract expenses	129,737
Travel expenses	1,003
Others	7,101
Laboratory and patient care services	-
Total direct costs	459,505
Total Indirect Costs - Overhead	3,335
Total Costs	462,840

Project execution period: From June 2020 to December 2024.

Project General Objective: Paracas will reinforce implementation science mentor-led research training at the doctoral level for outstanding young and mid-career health researchers; this will allow them to design and test effective interventions adapted to the health context. This program should build the competent and passionate HIV scientific workforce in Peru that is needed to achieve an AIDS-free generation.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 3

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Development and validation of an agent-based model to promote evidence-based control of taenia solium cysticercosis

Research project funded by federal funds from the United States of America, under subcontract with Oregon Health & Science University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	147,454
Consulting	1,501
Training	1,580
Equipment and/or supplies	78,967
Contract expenses	-
Travel expenses	38,617
Others	126,529
Laboratory and patient care services	32,831
Total direct costs	427,479
Total Indirect Costs - Overhead	31,489
Total Costs	458,968

Project execution period: From July 2019 to June 2024.

Project General Objective: Development of an accurate transmission model that can efficiently identify those interventions with the highest probability of success for further testing in prospective field trials.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 4

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Project of febrile illness surveillance in the Andean and Amazon countries (Pisaac)

Research project funded by federal funds from the United States of America, under direct contract with Centers for Disease Control And Prevention.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Zamudio Fuertes, Carlos.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	219,067
Consulting	29,811
Training	5,903
Equipment and/or supplies	136,543
Contract expenses	-
Travel expenses	2,132
Others	19,138
Laboratory and patient care services	39,711
Total direct costs	452,305
Total Indirect Costs – Overhead	234
Total Costs	452,539

Project execution period: From September 2021 to August 2025.

Project General Objective: Our specific objectives are to determine the etiology and epidemiology of influenza-like illnesses and severe acute respiratory diseases, with a special focus on COVID-19 in strategically selected regions of Peru and Ecuador, improve the capacity of laboratories to disease diagnosis, produce timely information and accurate surveillance data, and develop a workforce that can follow up on these measures.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 5

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Implementation of ring strategy for community engaged control of neurocysticercosis

Research project funded by federal funds from the United States of America, under subcontract with Oregon Health & Science University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	220,060
Consulting	-
Training	6,702
Equipment and/or supplies	38,703
Contract expenses	-
Travel expenses	20,466
Others	60,465
Laboratory and patient care services	33,308
Total direct costs	379,704
Total Indirect Costs - Overhead	31,052
Total Costs	410,756

Project execution period: From August 2019 to July 2024.

Project General Objective: Develop an adoptable approach for TA as a control program for T solium.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 6

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Peru infectious diseases epidemiology research training consortium.

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health - NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Lescano Hecto Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	77,569
Consulting	2,050
Training	193,853
Equipment and/or supplies	24,556
Contract expenses	9,837
Travel expenses	26,607
Others	22,309
Laboratory and patient care services	3,193
Total direct costs	359,974
Total Indirect Costs - Overhead	16,858
Total Costs	376,832

Project execution period: From April 2015 to February 2020. Addendum

Project General Objective: The concurrent flu pandemic has highlighted the gaps in knowledge and response capacity of emerging infectious diseases. In the first stage of our award, "Peru Infectious Diseases Epidemiology Research Training Consortium & quot: The NAMRU-6-UPCH-JHBSPH-USUHS consortium have contributed to building sustainable research capacity in Peru. Two master's graduates and one doctoral student returned to Peru and are studying the key epidemiological and ecological aspects of the pandemic and seasonal influenza and three students are finishing the courses. In addition, we established a quasi-self-sustaining, tuition-funded masters epidemiology in Peru, which is taught by more than 30 Peruvian/Foreign doctors and doctoral candidates, many funded by NIH research and training grants. We have trained 43 students in two successive cohorts, and the students of the first cohort have published 13 articles in peer-reviewed journals within one year of training, significant progress has been made, but substantial efforts are still needed.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 7

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving diagnostic and management tolls for neurocysticercosis (Peru JHU TMRC Program)

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Ugarte Gil, Cesar

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	187,502
Consulting	3,000
Training	1,030
Equipment and/or supplies	38,676
Contract expenses	64,435
Travel expenses	2,948
Others	31,074
Laboratory and patient care services	3,668
Total direct costs	332,333
Total Indirect Costs – Overhead	21,084
Total Costs	353,417

Project execution period: From April 2017 to March 2022. Addendum

Project General Objective: This TMRC (Tropical Medicine Research Centers) program presented by UPCH in collaboration with the Johns Hopkins University School of Public Health (SPHJH) articulates 3 research projects and three operational units to provide a fully functional research network and leverages our research network in Peru on this endemic disease.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 8

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Accuracy of novel diagnostic tests for detection of tuberculosis in adults: fend for tb

Research project funded by federal funds from the United States of America, under subcontract with Rutgers The State University Of New Jersey.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Ugarte Gil, Cesar.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	129,646
Consulting	-
Training	-
Equipment and/or supplies	18,930
Contract expenses	-
Travel expenses	2,076
Others	39,067
Laboratory and patient care services	82,280
Total direct costs	271,999
Total Indirect Costs - Overhead	20,244
Total Costs	292,243

Project execution period: From June 2020 to May 2025.

Project General Objective: The purpose of this study is to support proof-of-principle studies to evaluate new early-stage TB tests, assays, and diagnostic strategies, and to provide feedback to diagnostic developers on the performance of technology and strategies. Potential for use in endemic settings. For the purposes of this initiative, an "early stage" diagnosis refers to a diagnosis that has advanced to the stage where a prototype is ready and available for evaluation but is not currently used in clinical care and treatment decisions for the disease. tuberculosis.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 9

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Enhancing global health security

Research project financed by federal funds from the United States of America, under subcontract with the University of Washington.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Cárcamo Cavagnaro, Cesar Paul.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	229,219
Consulting	-
Training	-
Equipment and/or supplies	570
Contract expenses	-
Travel expenses	24,070
Others	9,094
Laboratory and patient care services	30
Total direct costs	262,983
Total Indirect Costs - Overhead	11,869
Total Costs	274,852

Project execution period: From January 2022 to May 2022. Addendum

Project General Objective: Conduct a situational analysis to review surveillance systems in association with the technical working group.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Urine screening for early detection of subarachnoid neurocysticercosis

Research project funded by federal funds from the United States of America, under subcontract with Oregon Health & Science University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	105,911
Consulting	236
Training	532
Equipment and/or supplies	33,037
Contract expenses	-
Travel expenses	22,504
Others	46,980
Laboratory and patient care services	25,607
Total direct costs	234,807
Total Indirect Costs - Overhead	21,714
Total Costs	256,521

Project execution period: From July 2018 to June 2023.

Project General Objective: This proposed cross-sectional study will focus on validating a new urinary antigen (AG) screening test for NCCSA in an endemic population, with confirmation by brain MRI, to understand the underlying prevalence of NCCSA. and testing at the community level. A defined group of urine samples will later be used to validate a prototype urine test format to be used at the point of care (PDA) that can be mass-produced.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 11

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Combined albendazole and praziquantel in subarachnoid NCC, CCC, lead application.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	183,372
Consulting	2,019
Training	285
Equipment and/or supplies	3,404
Contract expenses	20,000
Travel expenses	558
Others	4,605
Laboratory and patient care services	11,694
Total direct costs	225,937
Total Indirect Costs - Overhead	21,031
Total Costs	246,968

Project execution period: From September 2015 to July 2020. Addendum

Project General Objective: The main endpoint of the study is the proportion of patients with disappearance of their parasitic lesions on neuroimaging six months after starting treatment. Secondary outcomes include decrease in the volume of parasite masses measured by MRI at 3 and 6 months after the start of treatment, clinical improvement assessed as the proportion of patients who were asymptomatic and without the need for additional antiparasitic treatment 6 months after treatment, the frequency of serious adverse events (SAEs) of the combination regimen compared to standard treatment, the decrease in serum levels of circulating parasite antigen at 3 and 6 months after the start of treatment, and the proportion of patients whose lesions resolved and do not relapse 12 months after treatment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 12

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Cooperasalud: Technical support for the consolidation of HIV prevention and control.

Research project funded by federal funds from the United States of America, under direct contract with Navsup Fleet Logistics Support Center Sigonella.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Cáceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	102,155
Consulting	18,751
Training	6,165
Equipment and/or supplies	50,025
Contract expenses	-
Travel expenses	13,202
Others	27,741
Laboratory and patient care services	3,904
Total direct costs	221,943
Total Indirect Costs - Overhead	12,011
Total Costs	233,954

Project execution period: From November 2019 to November 2023.

Project General Objective: It is a program that seeks to strengthen the resources and strategies for the prevention and control of HIV in the Armed Forces of Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 13

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

An immune system for the city: a new paradigm for control of urban disease vectors

Research project financed by federal funds from the United States of America, under subcontract with the University of Pennsylvania.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Paz Soldán Parlette, Valerie Andrea.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	105,907
Consulting	42,471
Training	50
Equipment and/or supplies	13,447
Contract expenses	-
Travel expenses	6,675
Others	48,361
Laboratory and patient care services	-
Total direct costs	216,911
Total Indirect Costs - Overhead	12,924
Total Costs	229,835

Project execution period: From July 2019 to June 2024.

Project General Objective: The objective of this research is to develop a new paradigm for the control of dangerous insects following the model of the adaptive immune system. The project will adapt aspects of the immune system from the scale of cells to that of landscapes and will test the new approach against a conventional one using a randomized cluster design in an ongoing Chagas disease vector control program in the city. from Arequipa, Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 14

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving national knowledge and awareness of fungal infections in Peru

Research project funded by federal funds from the United States of America, under direct contract with Centers for Disease Control and Prevention.

For the period from January 1, 2022 to December 31, 2022.

Researcher: Dr. Banda Flores, Claudia Lizette.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	167,774
Consulting	10,338
Training	-
Equipment and/or supplies	17,567
Contract expenses	-
Travel expenses	4,322
Others	4,857
Laboratory and patient care services	8,479
Total direct costs	213,337
Total Indirect Costs - Overhead	13,340
Total Costs	226,677

Project execution period: From September 2021 to September 2026.

Project General Objective: The objective of this project is to improve human capacity, knowledge, awareness, and proper diagnosis of fungal infections in Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 15

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Transmission dynamics of residual malaria in the amazon: defining a roadmap to malaria elimination

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gamboa Vilela, Dionicia Baziliza.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	127,463
Consulting	5,400
Training	-
Equipment and/or supplies	26,938
Contract expenses	-
Travel expenses	7,377
Others	30,561
Laboratory and patient care services	4,149
Total direct costs	201,888
Total Indirect Costs – Overhead	22,223
Total Costs	224,111

Project execution period: From April 2019 to March 2024.

Project General Objective: The main objective is to identify risk factors for infection and residual malaria disease, both at the individual and family level, it will provide parasite samples for detailed population molecular analyzes and epidemiological data to develop new mathematical models of malaria transmission.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Training in infectious diseases in Peru - time for implementation research

Research project financed by federal funds from the United States of America, under direct contract with University of Southern California.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	54,855
Consulting	3,000
Training	66,531
Equipment and/or supplies	33,574
Contract expenses	-
Travel expenses	7,608
Others	16,320
Laboratory and patient care services	8,990
Total direct costs	190,878
Total Indirect Costs – Overhead	9,950
Total Costs	200,828

Project execution period: From July 1999 to February 2021.

Project General Objective: Training in infectious diseases is essential to build the research infrastructure in Peru, so that they can study infectious diseases of local importance. This training grant builds on a successful, long-standing, NIH-funded collaboration on training and research between the Universidad Peruana Cayetano Heredia (UPCH) in Lima, Peru, and the Johns Hopkins School of Public Health (JHSPH). We will develop and train students in short-term, medium-term, and long-term programs, both abroad and in Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 17

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Syphilis immunology and biology to improve clinical management and vaccine design

Research project funded by federal funds from the United States of America, under subcontract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Arroyo Hurtado Gianfranco.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	109,911
Consulting	602
Training	-
Equipment and/or supplies	11,997
Contract expenses	-
Travel expenses	-
Others	35,547
Laboratory and patient care services	14,088
Total direct costs	172,145
Total Indirect Costs - Overhead	18,648
Total Costs	190,793

Project execution period: From February 2021 to August 2022. Addendum

Project General Objective: The study is based on enrolling people with syphilis infection and following them to see how their laboratory values and clinical development change after receiving treatment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 18

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Deep VZN - Discovery & Exploration of emerging pathogens – viral zoono

Research project financed by federal funds from the United States of America, under subcontract with University of Southern California.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Cáceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	164,003
Consulting	1,867
Training	700
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	2,290
Others	5,122
Laboratory and patient care services	925
Total direct costs	174,907
Total Indirect Costs – Overhead	9,026
Total Costs	183,933

Project execution period: From March 2022 to December 2022.

Project General Objective: Document clinical outcomes and risk factors for mild, moderate, and severe disease in people with SARS-CoV-2 infection or influenza. Also, define the magnitude, quality, and longevity of immune responses to SARS-CoV-2 or influenza infection. And to characterize the levels and duration of viral excretion in people infected with SARS-CoV-2 or influenza. Characterize phenotypic and genotypic changes in SARS-CoV-2 and influenza viruses during the course of infection using next-generation sequencing.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Alternative therapeutic approaches for the control of brain inflammation secondary to antihelminthic therapy in

Research project funded by federal funds from the United States of America, under direct contract with Oregon Health & Science University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Garcia Lescano, Hector Hugo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	84,120
Consulting	4,782
Training	335
Equipment and/or supplies	28,834
Contract expenses	-
Travel expenses	7,493
Others	17,625
Laboratory and patient care services	5,178
Total direct costs	148,367
Total Indirect Costs - Overhead	13,023
Total Costs	161,390

Project execution period: From March 2019 to February 2024.

Project General Objective: The present study protocol proposes to optimize this animal model and characterize the immunopathological processes associated with cystic infection of the CNS (study 1). Subsequently, and in conjunction with a combined anthelmintic regimen using albendazole and praziquantel, the model will be used to determine the appropriate doses of ETN (Study 2A) or MTX (Study 2B) in the control of the local acute inflammatory response resulting from therapy. anthelmintic in pigs with viable cerebral cysticercosis; Outcomes measured will include inflammatory markers, blood-brain barrier dysfunction/permeability, neuronal damage, and structural changes in brain tissue. Finally, in study 3, we will compare the optimal dose of ETN or MTX versus the standard anti-inflammatory regimen using the corticosteroid dexamethasone (DEX), in the control of pericystic inflammation using the same endpoints as studies 2A and 2B. We hope that our findings provide the evidence base for further investigation with ETN or MTX in controlled studies in patients with NCC.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 20

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Understanding immune modulation in taenia solium neurocysticercosis by using a novel postoncosphere in vitro model

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health - NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Verastegui Pimentel, Manuela

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	105,695
Consulting	-
Training	-
Equipment and/or supplies	31,657
Contract expenses	-
Travel expenses	6,227
Others	2,087
Laboratory and patient care services	1,746
Total direct costs	147,412
Total Indirect Costs – Overhead	10,254
Total Costs	157,666

Project execution period: From May 2020 to April 2025.

Project General Objective: A new in vitro model of development of Taenia solium embryos is proposed, developed by the group, which allows to determine the specific differences of each stage in the expression of the antigen to identify the immunomodulatory molecules used by the parasite to survive. evading the host's immune response, with a focus on the recently described TGF- β mimic molecules that have been shown to play a significant role in parasite immunomodulation.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 21

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Patient-centered intervention to prevent tuberculosis among children < 5 years old

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health -NIH.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Otero Vegas, Larissa

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	133,262
Consulting	-
Training	61
Equipment and/or supplies	2,005
Contract expenses	-
Travel expenses	-
Others	5,934
Laboratory and patient care services	132
Total direct costs	141,394
Total Indirect Costs - Overhead	10,765
Total Costs	152,159

Project execution period: From September 2018 to April 2023.

Project General Objective: Develop an intervention package to increase information, motivation, and memory to complete preventive therapy with isoniazid (IPT) in children <5 years who have been prescribed IPT.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 22

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Closing the gap between the identification and treatment of cervical anomalies in Lima

Research project financed by federal funds from the United States of America, under subcontract with Duke University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	71,128
Consulting	1,628
Training	6,300
Equipment and/or supplies	27,225
Contract expenses	-
Travel expenses	11,544
Others	16,670
Laboratory and patient care services	606
Total direct costs	135,101
Total Indirect Costs - Overhead	9,728
Total Costs	144,829

Project execution period: From April 2019 to April 2023.

Project General Objective: to evaluate the feasibility and effectiveness (including a cost analysis) of the combination of the pocket colposcope and the thermocoagulator.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 23

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

A mobile phone short message service intervention to increase retention in HIV (Weltel Peru)

Research project funded by federal funds from the United States of America, under direct contract with National Institute of Health -NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Menacho Alvirio, Luis Alberto

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	119,598
Consulting	3,254
Training	5,000
Equipment and/or supplies	53
Contract expenses	-
Travel expenses	-
Others	9,408
Laboratory and patient care services	664
Total direct costs	137,977
Total Indirect Costs - Overhead	170
Total Costs	138,147

Project execution period: From August 2020 to July 2025.

Project General Objective: To determine the effectiveness of SMS-based intervention delivered via a web-based system in increasing retention in HIV care compared to standard care. We will conduct a randomized controlled trial. The primary outcome will be retention in HIV care within 1 year of enrollment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Spatially responsive mass vaccination strategies for urban rabies

Research project financed by federal funds from the United States of America, under subcontract with the University of Pennsylvania.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Paz Soldán Parlette, Valerie Andrea.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	81,132
Consulting	11,000
Training	600
Equipment and/or supplies	5,821
Contract expenses	-
Travel expenses	2,899
Others	8,383
Laboratory and patient care services	-
Total direct costs	109,835
Total Indirect Costs - Overhead	7,474
Total Costs	117,309

Project execution period: From April 2022 to March 2027.

Project General Objective: This proposal aims to produce an urgently needed novel approach for the control of urban rabies and other vaccine-preventable diseases through vaccination strategies incorporating spatial optimization and queuing theory, with current practice.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

The effect of strongyloides stercoralis on HTLV-1 disease progression.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health - NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Montes Delgado, Martin.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	90,466
Consulting	3,000
Training	-
Equipment and/or supplies	1,608
Contract expenses	-
Travel expenses	-
Others	4,110
Laboratory and patient care services	8,143
Total direct costs	107,327
Total Indirect Costs – Overhead	9,059
Total Costs	116,386

Project execution period: From March 2018 to February 2023.

Project General Objective: The specific objectives of this project will test two hypotheses: 1) Strongyloides infection stercoralis leads to a higher HTLV-1 proviral load, a higher number of infected cells, and early transformation of infected CD4+ T cells. We will compare the proviral load and the number of infected CD4+ T cells in the peripheral blood using CADM1 staining and loss of CD7 (an early marker of transformation). In patients coinfecting with HTLV-1/SS before and up to six months after treatment for strongyloidiasis; cases of coinfection with >5 years of follow-up or controls; Patient coinfecting with HTLV-1/SS followed prospectively. 2) Early cell transformation (CADM1 positive, CD7 low) is driven by the following mechanisms: a) Virus-driven lymphoproliferation (proviral load, spontaneous and antigen-driven lymphoproliferation); bacterial translocation and associated inflammation and/or expansion of regulatory T cells. These studies will test the importance of SS infection as a cofactor in lymphoproliferative disorders and will explore a rationale for more aggressive approaches to SS in HTLV-1 patients as well as in general populations.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Proteome-wide characterization of t cell epitopes from mycobacterium tuberculosis in vaccination and active infection

Research project funded by federal funds from the United States of America, under direct subcontract with La Jolla Institute for Immunology.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Ugarte Gil, Cesar.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	64,663
Consulting	-
Training	-
Equipment and/or supplies	8,924
Contract expenses	-
Travel expenses	-
Others	15,286
Laboratory and patient care services	12,420
Total direct costs	101,293
Total Indirect Costs - Overhead	6,837
Total Costs	108,130

Project execution period: From September 2021 to September 2023.

Project General Objective: This proposal deals with the discovery and validation of T cell epitopes presented by HLA class II that are derived from Mycobacterium tuberculosis. We will screen a library of 21,200 peptides in individuals with active TB disease, as well as individuals who have been vaccinated with BCG, all from the US, Peru, Moldova, Sri Lanka, and Sweden. These peptides will represent each individual ORF in the MTB genome, 2-10 per ORF depending on size, variants not fully conserved between the MTB strains considered, peptides contained only in BCG vaccine strains but not in MTB, and peptides from 15 MER overlapping by 10 covering 12 antigens currently

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Using the mycobacterium tuberculosis genome to predict tuberculosis pathology

Research project financed by federal funds from the United States of America, under subcontract with The John Hopkins University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Zimic Peralta, Mirko Juan.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	42,169
Consulting	379
Training	-
Equipment and/or supplies	18,382
Contract expenses	-
Travel expenses	-
Others	16,569
Laboratory and patient care services	20,500
Total direct costs	97,999
Total Indirect Costs - Overhead	4,074
Total Costs	102,073

Project execution period: From April 2021 to March 2025.

Project General Objective: Combine genome sequencing data of the tuberculosis (TB) pathogen at the population level with radiological data and determine the bacterial genomic form of the pathology in tuberculosis in Peru at the population level for 20 years and infer phylogenetically what genetic background is associated with the acquisition of drug resistance; then confirm these findings in the laboratory and in a similar collection of Moldovan datasets of >3000 strains.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Markers of triclabendazole resistant fasciolasis the highlands of Peru

Research project funded by federal funds from the United States of America, under subcontract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gotuzzo Herencia, Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	50,057
Consulting	9,900
Training	-
Equipment and/or supplies	19,960
Contract expenses	-
Travel expenses	2,852
Others	10,935
Laboratory and patient care services	-
Total direct costs	93,704
Total Indirect Costs - Overhead	3,417
Total Costs	97,121

Project execution period: From August 2019 to July 2023.

Project General Objective:

Triclabendazole Resistance (TCBZ-R) in Peru. Aim

2. Validate the genetic markers associated with TCBZ-R using independent cohorts and determine if the genetic basis of resistance is conserved between populations of parasites that infect animals and humans. Aim

3. Define the transcriptional alterations associated with TCBZ-R in Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 29

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Immunology of asymptomatic malaria and the effects of immunity on plasmodium transmission

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Torres Fajardo, Katherine Jessica.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	45,313
Consulting	1,397
Training	-
Equipment and/or supplies	8,658
Contract expenses	-
Travel expenses	11,694
Others	13,988
Laboratory and patient care services	5,809
Total direct costs	86,859
Total Indirect Costs - Overhead	8,086
Total Costs	94,945

Project execution period: From April 2019 to March 2024.

Project General Objective: The main objective is to compare the inflammatory response and response capacity of innate immune cells of clinically ill and asymptomatic patients with malaria. The defined biomarkers are validated, and we question whether asymptomatic patients are prone to developing diseases in recurrent infections. The results of these experiments are to identify innate immune biomarkers as well as B and T cell responses that predict disease outcome and mosquito transmission.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

HIV risk and psychosocial health among transgender women in Peru

Research project financed by federal funds from the United States of America, under subcontract with The Childrens Hospital Corporation D/B/A Boston Ch.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Alfonso Silva, Santisteban Portella

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	52,924
Consulting	386
Training	427
Equipment and/or supplies	11,463
Contract expenses	-
Travel expenses	-
Others	7,232
Laboratory and patient care services	15,947
Total direct costs	88,379
Total Indirect Costs - Overhead	4,794
Total Costs	93,173

Project execution period: From August 2019 to July 20223. Addendum

Project General Objective: A first phase that consists of formative/qualitative research to explore issues related to the psychosocial vulnerability of young trans women. Likewise, surveys and collection of samples to determine the prevalence of HIV, hepatitis B and C and associated factors. The design of the implementation and instruments of the second phase will be carried out taking into account the results of the first phase.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 31

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Gut microbial and metabolic mediators of rotavirus vaccine response

Research project financed by federal funds from the United States of America, under subcontract with Children's Hospital Los Angeles.

For the period from January 1, 2022 to December 31, 2022.

Investigator: Dr. Ochoa Woodell, Theresa Jean.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	70,692
Consulting	-
Training	-
Equipment and/or supplies	3,604
Contract expenses	-
Travel expenses	-
Others	8,274
Laboratory and patient care services	4,272
Total direct costs	86,842
Total Indirect Costs - Overhead	4,478
Total Costs	91,320

Project execution period: From October 2021 to March 2023. Addendum

Project General Objective: The general objective of this multicenter study (USA, Panama, and Peru) is to investigate the role and effect of intestinal bacteria in the response to the rotavirus vaccine according to the country and the different socioeconomic conditions of the population.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 32

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Using burden of treatment as a clinical indicator of barriers to multimorbidity management in Peru: A mixed methods approach

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health -NIH.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Miranda Montero, Juan Jaime.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	60,903
Consulting	17,240
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	1,952
Others	916
Laboratory and patient care services	823
Total direct costs	81,834
Total Indirect Costs - Overhead	8,269
Total Costs	90,103

Project execution period: From September 2020 to June 2023.

Project General Objective: The Treatment will be used burden Questionnaire (TBQ) to evaluate BOT in patients with multimorbidity in Peru. Semi-structured interviews will also be conducted. Participants will be recruited from a variety of clinical and geographic settings. The TBQ will be applied to measure the total BOT as well as the BOT related to different dimensions of healthcare workload. Sociodemographic characteristics and other indicators of clinical outcomes will also be assessed. By collecting this information, we hope to better understand what patient-reported barriers to multimorbidity management exist in Peru and what subgroups of patients, particularly those in different healthcare sectors and geographic settings, are at higher risk of experiencing high BOT.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 33

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Clinical trial comparing the effectiveness of cefixime versus penicillin G for treatment of early SY

Research project funded by federal funds from the United States of America, under subcontract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gallo López-Aliaga Carla Maria.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	57,816
Consulting	10,000
Training	-
Equipment and/or supplies	321
Contract expenses	-
Travel expenses	-
Others	15,345
Laboratory and patient care services	-
Total direct costs	83,482
Total Indirect Costs - Overhead	4,525
Total Costs	88,007

Project execution period: From July 2021 to June March 2026.

Project General Objective: Evaluate the efficacy of Cefixime in the treatment of early Syphilis in comparison with penicillin G Benzathine and determine the predictors of treatment failure among the participants.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 34

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Multidisciplinary training program on neuropsychiatry and behavioral disorders in first nations (neufin): Neufin 2

Research project financed by federal funds from the United States of America, under subcontract with University of Southern California.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Caceres Palacios Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	31,110
Consulting	1,980
Training	40,539
Equipment and/or supplies	120
Contract expenses	-
Travel expenses	3,193
Others	2,381
Laboratory and patient care services	-
Total direct costs	79,323
Total Indirect Costs - Overhead	7,418
Total Costs	86,741

Project execution period: From September 2021 to July 2026.

Project General Objective: We will continue developing capacities and training Quechua neuroscientists in clinical research applications of neuroimaging, genetics, epidemiology, neuropsychology and neuromodulation. We will also create customized training environments and an online innovation ecosystem to support the capacity and professional development of Quechua neuroscientists after completing their initial degree.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Spatiotemporal adaptation of anopheles darling in diverse ecological settings

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Herrera Varela, Manuela.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	44,517
Consulting	-
Training	-
Equipment and/or supplies	7,146
Contract expenses	-
Travel expenses	7,157
Others	18,316
Laboratory and patient care services	-
Total direct costs	77,136
Total Indirect Costs - Overhead	9,246
Total Costs	86,382

Project execution period: From April 2019 to March 2024.

Overall Project Objective : This Project will address three under-studied facets that will provide key details of how this vector maintains its dominant role in Amazon malaria transmission dynamics by: 1) outlining the importance of anthropogenic breeding sites leading to a high productivity and dispersal of mosquitoes near human habitation; 2) to examine the rapid adaptation in modified landscapes of location (indoor/outdoor) and nocturnal timing of biting behavior; and 3) show how the preferences/changes of this mosquito species interact with Plasmodium asymptomatic people. vivax to maintain hypoendemic transmission.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

How land use change transforms the landscape of vector-borne disease

Research project financed by federal funds from the United States of America, under subcontract with Stanford University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara Andrés Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	28,676
Consulting	-
Training	-
Equipment and/or supplies	13,263
Contract expenses	-
Travel expenses	15,576
Others	11,646
Laboratory and patient care services	1,039
Total direct costs	70,200
Total Indirect Costs - Overhead	4,655
Total Costs	74,855

Project execution period: From September 2021 to August 2025.

Project General Objective: The proposed research addresses the dynamic relationship between land-use change and vector-borne diseases by understanding how changes in environmental conditions affect the vector, host, and pathogen traits they drive. the broadcast. First, how environmental mechanisms translate into variations in observable disease incidence across large gradients in land use remains an understudied link between ecology, land use policy, and public health. Second, how these emergent large-scale dynamics of disease incidence across land use and over time. Third, a case study in the Peruvian Amazon will explain how the effects of environmental change on vector, host, and pathogen populations are combined to determine the effects of land use on vector-borne diseases at the local scale. How does land use change affect the distributions of vectors, hosts and pathogens and the characteristics that drive transmission? Create mechanistic models of the effects of climate and land cover factors on vector, host, and pathogen traits that drive transmission. How important is land use change to the dynamics of vector-borne disease incidence observed on a large scale in the field?

Use field data on the incidence of human vector-borne diseases and environmental covariates to test the relationship between land use and disease. Using statistical models from econometrics, test the hypotheses generated in Objective 1 and explore scale-dependent environmental effects on disease incidence. Through what socioeconomic, behavioral, and ecological mechanisms does land use affect the transmission of vector-borne diseases in the field? Conduct field studies across a land-use gradient in the Peruvian Amazon to understand local relationships between land-use change and vector-borne diseases. Conduct pathogen detection and vector abundance surveys, human behavior and sociodemographic surveys, and obtain human incidence data from the Ministry of Health. Measure links between local land use and disease by comparing vector and disease data within situ and remotely sensed environmental data, behavioral and sociodemographic data, and incidence of human disease at health posts.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 37

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

1/2 - Regional geohealth hub centered in Peru

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Hartinger Peña, Stella Maria.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	46,377
Consulting	3,000
Training	511
Equipment and/or supplies	17,764
Contract expenses	-
Travel expenses	2,955
Others	-
Laboratory and patient care services	-
Total direct costs	70,607
Total Indirect Costs - Overhead	2010
Total Costs	72,617

Project execution period: From June 2022 to February 2022.

Project General Objective: Develop capacities in the investigation of air pollution in Peru and study its association with cardiovascular and respiratory conditions-including COVID-19- and Alzheimer's Disease (AD) where the association with air pollution is not well established.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

HIV prevention and care for peruvian MSM and transgender women

Research project financed by federal funds from the United States of America, under subcontract with the regents of The University of California.

For the period from January 1, 2022 to December 31, 2022.

Investigator: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	54,966
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	1,766
Laboratory and patient care services	-
Total direct costs	56,732
Total Indirect Costs – Overhead	2,909
Total Costs	59,641

Project execution period: From February 2016 to December 2022.

Project General Objective: The health component of the Pride+ intervention has the general objective of improving the quality of HIV prevention and treatment care aimed at the MSM and trans women population in the intervention area; in the context of adequate attention to the needs of the population, taking as a framework an approach of the right to health in the context of the continuum of HIV prevention and care.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 39

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Predictors of cardiomyopathy progression in a chagas disease cohort in Bolivia

Research project financed by federal funds from the United States of America, under direct contract with The John Hopkins University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Verastegui Pimentel, Manuela.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	40,820
Consulting	-
Training	-
Equipment and/or supplies	13,218
Contract expenses	-
Travel expenses	-
Others	370
Laboratory and patient care services	877
Total direct costs	55,285
Total Indirect Costs – Overhead	4,102
Total Costs	59,387

Project execution period: From February 2014 to June 2023.

Overall Project Objective : We intend to examine biomarkers in multiple categories simultaneously to allow a full assessment of their relative usefulness, individually and in combination, in a cohort study recruited from two populations, (1) hyperendemic villages where >95% of the Adults have T. cruzi infection and 17% of infected individuals > 30 years of age have electrocardiographic abnormalities characteristic of Chagasic cardiomyopathy and (2) a large public hospital in the city of Santa Cruz, where it is expected that > 50% of heart patients have Chagas heart disease. The primary outcome measure will be the progression of Chagasic cardiomyopathy over 4 years of follow-up.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 40

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Infectious diseases training program in Bolivia: south - south training with Peru

Research project financed by federal funds from the United States of America, under subcontract with The John Hopkins University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	21,728
Consulting	-
Training	14,560
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	2,970
Others	14,878
Laboratory and patient care services	-
Total direct costs	54,136
Total Indirect Costs - Overhead	3,623
Total Costs	57,759

Project execution period: From May 2015 to December 2023.

Project General Objective: The general objective of our proposal is to develop and build a long-term sustainable training program in tropical infectious diseases in Bolivia. Our goal is to meet the needs of marginalized areas, train a group of professionals, strengthen local institutions, and improve research methodologies, in order to improve the quality and impact of research.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Coflu - Natural history of SARS-COV-2 in comparison with the virus.

Research project financed by federal funds from the United States of America, under subcontract with St jude Children's Research Hospital.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	34,959
Consulting	-
Training	-
Equipment and/or supplies	589
Contract expenses	-
Travel expenses	-
Others	4,323
Laboratory and patient care services	11,617
Total direct costs	51,488
Total Indirect Costs - Overhead	2,775
Total Costs	54,263

Project execution period: From June 2020 to December 2022.

Project General Objective: 1. Document clinical outcomes and risk factors for mild, moderate, and severe disease in people with SARS-CoV-2 infection or influenza. 2. Define the magnitude, quality, and longevity of immune responses to SARS-CoV-2 or influenza infection. 3. Characterize the levels and duration of viral shedding in people infected with SARS-CoV-2 or influenza. Characterizing phenotypic and genotypic changes in SARS-CoV-2 and influenza viruses during the course of infection using next-generation sequencing

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

D43 Chronic Non-communicable CVDS and comorbidities in Peru.

Research project financed by federal funds from the United States of America, under subcontract with the University of Washington.

For the period from January 1, 2022 to December 31, 2022.

Researcher: Dr. Hatinger Peña, Stella Maria.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	28,386
Consulting	-
Training	20,769
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	79
Laboratory and patient care services	-
Total direct costs	49,234
Total Indirect Costs - Overhead	2,303
Total Costs	51,537

Project execution period: From March 2022 to March 2027.

Project General Objective: Develop the research careers of fellows in the area of cardiovascular diseases, implementation science and environmental exposure; provide intensive training opportunities and build capacity in a range of scientific disciplines and skills relevant to achieving research independence. The long-term goal of this program is to build a sustainable and collaborative research training infrastructure to develop Peruvian research scientists capable of designing and delivering interventions that address unmet health needs, including the translation of evidence-based interventions and the implementation and dissemination of effective policies to improve public health in Peru.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Translational research development for endemic infectious diseases of Amazonia.

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gamboa Vilela, Dionicia Baziliza

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	1,798
Consulting	-
Training	-
Equipment and/or supplies	11,334
Contract expenses	-
Travel expenses	1,206
Others	30,531
Laboratory and patient care services	-
Total direct costs	44,869
Total Indirect Costs - Overhead	6,634
Total Costs	51,503

Project execution period: From November 2018 to February 2023.

Project General Objective: The objective of this new training program in research in infectious diseases of the Project, with a focus on the training of candidates from Iquitos (National University of the Peruvian Amazon). This research training program is explicitly focused on increasing and maintaining research capacity in emerging and endemic infectious diseases primarily in Peru, particularly those found in the Peruvian Amazon. This training program will focus especially on infectious diseases associated with significant morbidity and mortality in the Peruvian Amazon.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 44

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Prevalence and incidence of neonatal HSV (Herpes Simplex) in pre-term infants.

Research project funded by federal funds from the United States of America, under a subcontract with the University of Alabama

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Cárcamo Cavagnaro, Cesar Paul

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	41,076
Consulting	-
Training	-
Equipment and/or supplies	503
Contract expenses	-
Travel expenses	-
Others	415
Laboratory and patient care services	-
Total direct costs	41,994
Total Indirect Costs - Overhead	2,779
Total Costs	44,773

Project execution period: From August 2016 to December 2022.

Project General Objective: Estimate the incidence of neonatal herpes by combining two components. The first will make it possible to determine the prevalence of HSV infection confirmed by PCR in neonates with a suspected diagnosis of sepsis or meningitis (MSS). The second component will estimate the incidence of SSM in a prospective cohort of newborns.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Planning an MD-MSc combined degree program focused on translational research to build the next generation of Physician-Scientists in Peru.

Research project financed by federal funds from the United States of America, under direct contract with National Institute of Health.

For the period from January 1, 2022 to December 31, 2022.

Researcher: Dr. Montes Delgado, Martin.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	37,738
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	961
Laboratory and patient care services	-
Total direct costs	38,699
Total Indirect Costs – Overhead	5,782
Total Costs	44,481

Project execution period: From July 2020 to March 2023.

Project General Objective: 1) develop the curricular design of the master's degree; 2) address at both academic institutions the feasibility of accommodating dual accreditation requirements for a combined MD-MSc program; 3) develop the induction program for MD/MSc teachers, stimulating good tutoring practices towards the youngest learners; 4) pilot implementation of the curricular components of the master's degree; 5) Analyze strategies to optimize learner retention and the transition to scientific independence, with the participation of Peruvian stakeholders. After completing this planning process, we will be in an exceptional position to develop and implement a robust and highly competitive D43 application that will become a milestone in the capacity building of Peruvian doctors and scientists. As FIC alumni who returned to UPCH 15 years ago, we are eager to contribute to substantially enriching the research environment for our brilliant physician-scientists-in-training.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Novel nanoparticle diagnostics for Cerebral toxoplasmosis and Chagas in HIV patients living in Latin America.

Research project financed by federal funds from the United States of America, under subcontract with The John Hopkins University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Zimic Peralta, Mirko Juan

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	20,147
Consulting	-
Training	705
Equipment and/or supplies	12,627
Contract expenses	-
Travel expenses	1,738
Others	6,311
Laboratory and patient care services	-
Total direct costs	41,528
Total Indirect Costs - Overhead	1,712
Total Costs	43,240

Project execution period: From June 2018 to May 2023.

Project General Objective: This project will help define the clinical spectrum of HIV-associated neurological disease in Latin America. The project will use innovative diagnostic techniques to distinguish between CNS Chagas disease, TBM, TE and other CNS infections. Where multiple pathogens are endemic and rapidly fatal, more rapid, sensitive, and specific tests could speed up initiation of specific therapy, thus achieving speedy patient recovery. A definitive diagnosis of CNS TE, TBM, and Chagas disease in an accessible body fluid, such as urine, could allow immediate initiation of effective treatment and avoid more expensive and invasive diagnostic tests.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 47

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Enabling infectious disease research capacity in the Peruvian Amazon.

Research project funded by federal funds from the United States of America, under subcontract with Tulane University - National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	30,522
Consulting	-
Training	-
Equipment and/or supplies	6,559
Contract expenses	-
Travel expenses	-
Others	3,000
Laboratory and patient care services	-
Total direct costs	40,081
Total Indirect Costs – Overhead	1,985
Total Costs	42,066

Project execution period: From November 2018 to February 2024.

Project General Objective: This project proposes a collaborative research training program that strengthens the capacity of an institution in a low or medium-income country to carry out research on infectious diseases that focuses on 1) endemic or life-threatening emerging diseases of infectious diseases 2) neglected tropical diseases 3) frequent infections as co-infections in HIV-infected individuals or 4) infections associated with noncommunicable diseases that are of public health importance in low- and middle-income countries.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

One-health approach to study human Fasciola Hepatica transmission and inform strategic control.

Research project funded by federal funds from the United States of America, under subcontract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Montes Delgado, Martin.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	21,512
Consulting	-
Training	-
Equipment and/or supplies	8,925
Contract expenses	-
Travel expenses	3,016
Others	578
Laboratory and patient care services	-
Total direct costs	34,031
Total Indirect Costs - Overhead	7,287
Total Costs	41,318

Project execution period: From April 2022 to March 2027.

Project General Objective: To determine the critical steps in the transmission of F. hepatica infection to humans by analyzing environmental, temporal-spatial data, and the distribution of the infection in the different hosts using a one-health approach.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Eating behavior with sugars of the Nyssorhynchus Malaria vector Darlingi and the development of attractive and effective toxic sugar baits (ATSBs) to increase intervention success in Peru.

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gamboa Vilela, Dionicia Baziliza

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	33,860
Consulting	-
Training	-
Equipment and/or supplies	3,795
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	37,655
Total Indirect Costs - Overhead	2,499
Total Costs	40,154

Project execution period: From April 2019 to March 2023.

Project General Objective: The objective of this Project is to provide innovative quantitative information on the time, place and frequency of feeding with essential sugar for the reproductive success of the male mosquito and for the female maximization of egg production and survival. in the main South American malaria vector, nyssorhynchus darling. Our studies in the field and in a biosphere in the Peruvian Amazon will allow us to develop, for the first time in a tropical forest environment, an attractive toxic bait to augment local malaria interventions that can lead to eradication in similar settings throughout. the world.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving response to Malaria outbreaks in Amazon-basin countries.

Research project financed by federal funds from the United States of America, under subcontract with Duke University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	23,919
Consulting	-
Training	-
Equipment and/or supplies	185
Contract expenses	-
Travel expenses	8,653
Others	5,283
Laboratory and patient care services	-
Total direct costs	38,040
Total Indirect Costs – Overhead	1,921
Total Costs	39,961

Project execution period: From September 2021 to August 2026.

Project General Objective: Malaria is an endemic disease in areas of the Amazon in countries such as Peru, Brazil and Ecuador. A better knowledge of the distribution of climatic, ecological, social and community factors will allow the optimization of malaria outbreak prediction systems; as well as the timely and effective implementation of public health interventions
Objective: Improve the prediction of malaria incidence as part of an early warning system to inform interventions aimed at malaria control. Methodology: It is developed according to the 2 main specific objectives: 1) Evaluate the relationship between infrastructure, socioeconomic networks and migration across the international border (Brazil-Peru, Ecuador-Peru) with the incidence of malaria; First, the extraction of public data will be carried out in order to create a district database in the three countries and evaluate their relationships with malaria. Next, a community network sampling and key informant survey will be designed in two international transportation corridors to characterize community networks. Subsequently, malaria transmission patterns through community networks and whether connectivity at the district level predicts these community networks will be assessed. 2) Evaluate scenarios of potential interventions along the borders to jointly reduce malaria, first a selection of the communities and data collection will be made. Agent-based models (ABMs) will then be calibrated and validated. Subsequently, the results of the ABMs will be analyzed. Finally, there will be a dissemination of the information provided by the ABMs.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 51

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Genomic epidemiology of campylobacter in poultry to enable the effective control of human campylobacteriosis in a middle-income country.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Schiaffino Salazar, Francesca.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	32,872
Consulting	-
Training	-
Equipment and/or supplies	637
Contract expenses	-
Travel expenses	4,236
Others	-
Laboratory and patient care services	-
Total direct costs	37,745
Total Indirect Costs - Overhead	2,055
Total Costs	39,800

Project execution period: From August 2022 to June 2027.

Project General Objective: This project will investigate the genomic diversity of MDR Campylobacter colonization in chickens. This will be done with the overall goal of decreasing the MDR Campylobacter burden in human populations, through adequate control of Campylobacteriosis in poultry production and food processing. We believe that there are sufficient genomic features to identify distinct Campylobacter populations among small-scale and industrial-scale poultry products that may contribute significantly to human host-attribution disease models. We need to go beyond the epidemiology of risk factors within an environment harboring unlimited sources of Campylobacter, to effectively identify opportunities for disease control strategies and interventions in the avian and human host to decrease the burden of human Campylobacteriosis.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Research training in chronic, non-communicable respiratory diseases in Peru.

Research project funded by federal funds from the United States of America, under subcontract with The John Hopkins University

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Hartinger Peña, Maria Stella

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	9,675
Consulting	-
Training	26,188
Equipment and/or supplies	1,403
Contract expenses	-
Travel expenses	-
Others	150
Laboratory and patient care services	-
Total direct costs	37,416
Total Indirect Costs – Overhead	2,377
Total Costs	39,793

Project execution period: From April 2020 to May 2023.

Project General Objective: The objective of this training program is to provide high caliber multidisciplinary training opportunities to young Peruvian researchers in research on environmental exposure and chronic respiratory diseases. Specifically, this program will focus on building research and training capacity to address environmental risk factors (ambient air pollution, household air pollution, smoking, occupational exposures) that are driving the epidemic of chronic respiratory diseases (asthma, COPD, EPI) in Peru. In addition, the program will provide intensive training opportunities and build training capacity in a variety of scientific disciplines (clinical epidemiology, exposure assessment, efficacy trials, implementation science) relevant to addressing this emerging threat.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Knowledge, practices, and attitudes towards child oral health.

Research project financed by federal funds from the United States of America, under subcontract with the University of California.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	707
Consulting	2,719
Training	22,362
Equipment and/or supplies	125
Contract expenses	-
Travel expenses	4,072
Others	7,443
Laboratory and patient care services	-
Total direct costs	37,428
Total Indirect Costs – Overhead	1,345
Total Costs	38,773

Project execution period: From July 2021 to June 2023.

Project General Objective: Identify the possible barriers and facilitators to include child oral health in the routine pediatric control carried out by nurses within the framework of the National Program for Control and Growth of Children Under 5 Years (CRED), especially during the first three years of life.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 54

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Plasmodium infection decreases pre-existing Covid-19 antibody titers and compromises immunity in communities at high risk for Malaria in the Peruvian Amazon.

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Torres Fajardo, Katherine Jessica.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	31,483
Consulting	-
Training	35
Equipment and/or supplies	3,314
Contract expenses	-
Travel expenses	328
Others	1,740
Laboratory and patient care services	16
Total direct costs	36,916
Total Indirect Costs - Overhead	1,771
Total Costs	38,687

Project execution period: From July 2021 to June 2022.

Project General Objective: Analyze whether malaria can compromise the natural response of pre-existing antibodies against SARS-CoV-2, to improve the management of COVID-19 in communities of the Peruvian Amazon. We hypothesize that acute malaria and asymptomatic malaria accelerate the loss of pre-existing natural IgG antibodies against SARS-CoV-2 in people living in the Peruvian Amazon. For this reason, this study will aim to determine the dynamics of the specific levels of IgG antibodies against SARS-CoV-2 proteins (Receptor binding domain, stabilized protein S ectodomain, S2 ectodomain and SARS nucleocapsid CoV-2) and Plasmodium (PvMSP8 and PvMSP10) during malaria infection in people from communities with high malaria risk in the Peruvian Amazon. In addition, the B cell response to SARS-CoV-2 and Plasmodium infection will be determined one month after malaria infection.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

CCASNET 2021-2026

Research project financed by federal funds from the United States of America, under subcontract with Vanderbilt University Medical Center.
For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gotuzzo Herencia, Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	29,603
Consulting	4,000
Training	-
Equipment and/or supplies	1,116
Contract expenses	-
Travel expenses	-
Others	1,844
Laboratory and patient care services	-
Total direct costs	36,563
Total Indirect Costs - Overhead	-
Total Costs	36,563

Project execution period: From July 2021 to April 2026.

Project General Objective: CCASANET: Network of the Caribbean, Central and South America for the epidemiology of HIV. This project creates and maintains a shared repository of HIV data from the Caribbean and Central and South America and uses the combined data to answer questions about the characteristics of the regional HIV epidemic.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

A prospective study of Acute Flaccid Myelitis (AFM) to define natural.

Research project financed by federal funds from the United States of America, under a subcontract with the University of Alabama.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Ochoa Woodell, Theresa Jean.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	23,910
Consulting	209
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	7,898
Laboratory and patient care services	126
Total direct costs	32,143
Total Indirect Costs – Overhead	692
Total Costs	32,835

Project execution period: From July 2019 to June 2023.

Project General Objective: Prospective, observational and multicenter study that seeks to describe the clinical spectrum of acute flaccid myelitis (AFM) in pediatric patients and its possible association with infectious processes. This study will enroll patients with suspected AFM and their household contacts. Biological samples will be collected from the enrolled subjects to constitute a biorepository, which will serve for future studies aimed at studying the etiology, pathophysiology and genetics of AFM; as well as for the development of diagnostic methods, vaccines and treatment for this condition.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 57

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

University of California global health institute program for fellows and scholars.

Research project financed by federal funds from the United States of America, under subcontract with the University of California.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	4,925
Consulting	2,400
Training	1,988
Equipment and/or supplies	309
Contract expenses	-
Travel expenses	542
Others	15,713
Laboratory and patient care services	1,535
Total direct costs	27,412
Total Indirect Costs - Overhead	1,374
Total Costs	28,786

Project execution period: From April 2012 to June 2023.

Project General Objective: Glocal is a program of a consortium of four universities in California, USA, funded by the US National Institutes of Health with the objective of providing 12-month mentored research internships in Peru to researchers North Americans or Peruvians.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Ictus: Interdisciplinary cerebrovascular diseases training program in South America.

Research project financed by federal funds from the United States of America, under subcontract with the University of Washington.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	29,973
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	3,429
Others	47
Laboratory and patient care services	-
Total direct costs	26,449
Total Indirect Costs - Overhead	847
Total Costs	27,296

Project execution period: From June 2014 to May 2023.

Project General Objective: Continue building a cadre of Peruvian doctors to reduce mortality and morbidity from cerebrovascular disease in Peru. Improve research in the management of cerebrovascular disease and post-cerebrovascular patient rehabilitation in Peru through workshops, didactic courses and training at the master's level in research methodology with precepts for young Peruvian doctors. Support clinical research projects with mentors in Peru for all mid- and long-term physicians-in-training to obtain data for thesis papers, publications, and future grant applications in the fields of cerebrovascular and post-stroke rehabilitation. Improving the quality of stroke care and post-stroke rehabilitation in Peru through implementation science.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Core B Data Management

Research project financed by federal funds from the United States of America, under subcontract with Yale University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gamboa Vilela, Dionicia Baziliza

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	10,965
Consulting	-
Training	-
Equipment and/or supplies	2,610
Contract expenses	-
Travel expenses	1,835
Others	3,573
Laboratory and patient care services	-
Total direct costs	18,983
Total Indirect Costs - Overhead	2,271
Total Costs	21,254

Project execution period: From April 2019 to March 2024.

Project General Objective: The objective of this project is to support study design, development/validation of case report forms, data cleaning, and analysis.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 60

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Acceptability, feasibility, and preliminary impact of a web-based, HIV prevention toolkit with Cisge.

Research project financed by federal funds from the United States of America, under subcontract with The Florida International University Board of Trus.

For the period from January 1, 2022 to December 31, 2022.

Investigator: Dr. Alfonso Silva, Santisteban Portella

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	12,017
Consulting	-
Training	-
Equipment and/or supplies	136
Contract expenses	-
Travel expenses	-
Others	6,928
Laboratory and patient care services	879
Total direct costs	19,960
Total Indirect Costs - Overhead	263
Total Costs	20,223

Project execution period: From July 2021 to June 2024.

Project General Objective: Testing an intervention for gay male couples to see if it helps them prevent HIV/STIs. The intervention is a website with 5 modules designed for gay couples.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 61

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Evaluation of urgencies, emergencies, and essential neurosurgical care in Peru.

Research project financed by federal funds from the United States of America, under subcontract with Harvard University.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	7,554
Consulting	-
Training	-
Equipment and/or supplies	734
Contract expenses	-
Travel expenses	198
Others	4,743
Laboratory and patient care services	5,066
Total direct costs	18,295
Total Indirect Costs – Overhead	25
Total Costs	18,320

Project execution period: From July 2019 to June 2023.

Project General Objective: (1) Characterize the neurological and neurocognitive sequelae after SARS-CoV-2 infection of different severities over time; (2) assess the trajectory of neurocognitive test scores after SARS-CoV-2 infection; and (3) to assess viral shedding and differences in humoral and cellular immune responses after SARS-CoV-2 infection in relation to reported neurological and neurocognitive symptoms and neurocognitive test scores.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 62

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Combined albendazole plus praziquantel in subarachnoid NCC, DCC application.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	15,818
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	1,667
Laboratory and patient care services	-
Total direct costs	17,485
Total Indirect Costs - Overhead	86
Total Costs	17,571

Project execution period: From September 2015 to July 2022.

Project General Objective: The idea is to establish a Data Coordination Center (DCC) for the NIH/NINDS clinical trial request entitled "A Randomized Trial of combined Albendazole Plus Praziquantel for subarachnoid Cysticercosis of the Sylvian Fissure or the Basal Cisterns". In the aforementioned five-year study, a total of 164 subjects, the subjects will be enrolled in a randomized, double-blind clinical trial with 12-month follow-up each.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Integrating smartphone photography for Trachoma, smartphone visual acuity assessment, and mobile autorefraction to enhance community-based public health monitoring.

Research project financed by federal funds from the United States of America, under subcontract with the regents of The University of California

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	16,797
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	16,797
Total Indirect Costs - Overhead	412
Total Costs	17,209

Project execution period: From September 2021 to August 2023.

Project General Objective: In this project, we propose to add modules for other trachoma-related conditions, add the ability to collect data on other outcomes such as photography and conjunctival swabs, take advantage of smartphone barcode scanning capabilities to facilitate sample management and incorporate Peek Acuity to measure visual acuity. All these improvements to the Tropical Data application could improve its use as a survey instrument by health ministries around the world. Objective Evaluate the feasibility of a mobile application that integrates the Cellscope and other functionalities in the Tropical Data platform using different types of smartphones, in a variety of field conditions and communities.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 64

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Orphan GPCR ligands from ethnobotanical sources as novel drugs for mental disorders.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Vaisberg Wolach, Abraham Jaime

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	7,427
Consulting	-
Training	-
Equipment and/or supplies	1,587
Contract expenses	-
Travel expenses	5,841
Others	221
Laboratory and patient care services	-
Total direct costs	15,076
Total Indirect Costs - Overhead	1,887
Total Costs	16,963

Project execution period: From July 2018 to May 2023.

Project General Objective: To take advantage of the knowledge of traditional medicine to direct the discovery of novel therapies for mental disorders that will eventually help to unravel the still poorly understood biological processes behind the appearance of these diseases.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

CCASANET: Caribbean, Central and South America Network 2016-2021

Research project financed by federal funds from the United States of America, under subcontract with Vanderbilt University Medical Center.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Gotuzzo Herencia, Eduardo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	15,513
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	16
Laboratory and patient care services	-
Total direct costs	15,529
Total Indirect Costs - Overhead	518
Total Costs	16,047

Project execution period: From June 2017 to April 2022.

Project General Objective: CCASANET: Network of the Caribbean, Central and South America for the epidemiology of HIV. This project creates and maintains a shared repository of HIV data from the Caribbean and Central and South America and uses the combined data to answer questions about the characteristics of the regional HIV epidemic.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

How the Covid-19 pandemic affected the life and work of ACS.

Research project financed by federal funds from the United States of America, under subcontract with the University of Arizona.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Blas Blas, Magaly Marlitz

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	2,742
Consulting	1,612
Training	-
Equipment and/or supplies	176
Contract expenses	-
Travel expenses	6,074
Others	2,441
Laboratory and patient care services	-
Total direct costs	13,045
Total Indirect Costs - Overhead	10
Total Costs	13,055

Project execution period: From August 2021 to June 2022.

Project General Objective: The objective of this study is to investigate how the pandemic affected the life and work of community health agents - ACS.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 67

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

CCASNET 2020-2022

Research project funded by federal funds from the United States of America, under subcontract with Vanderbilt University Medical Center

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Gotuzzo Herencia, Eduardo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	1,963
Consulting	4,250
Training	-
Equipment and/or supplies	2,368
Contract expenses	-
Travel expenses	-
Others	8
Laboratory and patient care services	-
Total direct costs	8,589
Total Indirect Costs - Overhead	10
Total Costs	8,599

Project execution period: From February 2020 to January 2023.

Project General Objective: Network of the Caribbean, Central and South America for the epidemiology of HIV. This project creates and maintains a shared repository of HIV data from the Caribbean and Central and South America and uses the combined data to answer questions about the characteristics of the regional HIV epidemic.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Statistical methods for correlated outcome and covariate errors in studies of HIV/AIDS.

Research project financed by federal funds from the United States of America, under subcontract with Vanderbilt University Medical Center.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Otero Vegas, Larissa.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	6,532
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	6,532
Total Indirect Costs - Overhead	508
Total Costs	7,040

Project execution period: From January 2019 to January 2023.

Project General Objective: Plan the development of a pragmatic clinical trial to evaluate the optimal duration of Tuberculosis treatment in patients co-infected with HIV, as well as a reminder pill box, to increase adherence to treatment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Colonization of the intestine with pathogens with antimicrobial resistance.

Research project funded by federal funds from the United States of America, under subcontract with Tufts University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. straw Travezaño, Monica Jhenny.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	2,822
Consulting	-
Training	-
Equipment and/or supplies	3,414
Contract expenses	-
Travel expenses	-
Others	172
Laboratory and patient care services	-
Total direct costs	6,408
Total Indirect Costs – Overhead	419
Total Costs	6,827

Project execution period: From May 2020 to August 2022.

Project General Objective: To address the basic epidemiological questions about the prevalence or ESBL-E and CIP-C in healthy children under 2 years of age in Peru, we will carry out a cross-sectional pilot study stratified by age in three peri-urban communities of Peru: (1) Villa El Salvador, a slum in Lima, Peru, where we have worked since the 1980s, (2) Iquitos, where we have worked since the early 2000s, and (3) Arequipa. We will assess the presence of culturable ESBL-E and CIP-C in the children's feces and determine whether the prevalence differs by age and study site. We will collect stool samples from study subjects and sociodemographic information.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Impact of El Niño on environmental mercury and human exposure.

Research project funded by federal funds from the United States of America, under subcontract with University at Albany - State University Of New York.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Miranda Montero, Juan Jaime

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	5,271
Consulting	-
Training	-
Equipment and/or supplies	147
Contract expenses	-
Travel expenses	12
Others	124
Laboratory and patient care services	-
Total direct costs	5,554
Total Indirect Costs – Overhead	331
Total Costs	5,885

Project execution period: From March 2019 to June 2023.

Project General Objective: In this proposal, we are going to test our main hypothesis that El Niño is associated with increased MeHg exposure in nearby ASM communities.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

Project 71

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Long-term mental health symptoms and psychological rehabilitation among Peruvian Covid-19 survivors.

Research project financed by federal funds from the United States of America, under subcontract with The University of North Carolina At Chapel Hill.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Lescano Guevara, Andrés Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	5,760
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	5,760
Total Indirect Costs – Overhead	-
Total Costs	5,760

Project execution period: From June 2022 to May 2023.

Project General Objective: After COVID-19, people are at greater risk of developing mental health disorders.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

1/2-regional geohealth hub centered in Peru

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Gonzales Rengifo, Gustavo Francisco

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	4,461
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	671
Laboratory and patient care services	-
Total direct costs	5,132
Total Indirect Costs - Overhead	582
Total Costs	5,714

Project execution period: From September 2015 to March 2022.

Project General Objective: Carry out an intervention study of intradomiciliary air pollution and use of biomass. To evaluate the relationship between outdoor air pollution and cardiorespiratory disease in Lima, Peru. Develop a predictive model of the impact of climate change on diarrheal diseases and vector-borne diseases (Dengue, Chagas and Malaria).

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Tuberculosis research project UPCH-OSU.

Research project funded by federal funds from the United States of America, under subcontract with The Ohio State University.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Ugarte Gil, Cesar

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	5,589
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	5,589
Total Indirect Costs - Overhead	-
Total Costs	5,589

Project execution period: From January 2021 to June 2023.

Project General Objective: Evaluate the diagnostic validity of Xpert Xpress SARS-CoV-2 by comparing it with a composite reference standard (RT-PCR, tomography, epidemiological clinical history and clinical symptoms).

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Chaka: Strengthening research support structures in the Andean region.

Research project financed by federal funds from the United States of America, under contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra, Patricia Jannet

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	1,879
Consulting	-
Training	-
Equipment and/or supplies	25
Contract expenses	-
Travel expenses	-
Others	1
Laboratory and patient care services	-
Total direct costs	1,905
Total Indirect Costs - Overhead	2,328
Total Costs	4,233

Project execution period: From April 2016 to April 2022.

Project General Objective: Develop a generation of administrators qualified in managing research projects at the Universidad Peruana Cayetano Heredia, and catalyze a career in research administration, which will help develop an enabling environment and systems for health research.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Hepatic cystic echinococcosis: preclinical evaluation of a new percutaneous treatment approach.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Santivañez Salazar, Saul Javier.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	-
Total Indirect Costs - Overhead	3,765
Total Costs	3,765

Project execution period: From March 2016 to February 2022.

Project General Objective: To evaluate a new one-step percutaneous treatment approach that consists of the intracystic injection of albendazole sulfoxide (ABZ – SF), the active metabolite of ABZ. This procedure requires less resources and time than the PAIR, it also has advantages that it would not be contraindicated by the presence of cysto -biliary fistulas, and it should also be safer than oral therapy with ABZ since it avoids the systemic toxicity associated with a prolonged oral therapy with ABZ. This project includes 3 consecutive phases: In the first phase, two different doses of ABZ-SF are compared to determine the highest safe dose; Finally, in the third phase, the intracystic concentration will be determined. amount of ABZ-SF necessary to achieve treatment success.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving the diagnosis of HIV-associated neurocognitive disorder (hand) in Latin America: A multimodal approach to hand in Peru.

Research project financed by federal funds from the United States of America, under subcontract with the University of North Carolina.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Garcia Fúnegra Patricia Jannet

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	650
Contract expenses	-
Travel expenses	-
Others	2,113
Laboratory and patient care services	-
Total direct costs	2,763
Total Indirect Costs - Overhead	-
Total Costs	2,763

Project execution period: From July 2022 to June 2023.

Project General Objective: Adapt a digital tool (in tablets) that is currently used for the early screening of Alzheimer's and validate its use in TNAV in Peru. As a secondary objective, TNAV risk factors will be identified that will be used to build a predictive statistical model for TNAV in Peru that can identify modifiable factors. As a final objective, the tools will be implemented, evaluated and optimized through iterative rounds of interviews with PLWHA care providers.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Population assessment of Alzheimer's and related dementias in rural northern Peru.

Research project financed by federal funds from the United States of America, under subcontract with the University of Washington.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. García Lescano, Héctor Hugo

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	1,819
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	1,819
Total Indirect Costs - Overhead	317
Total Costs	2,136

Project execution period: From August 2019 to May 2023.

Project General Objective: Population studies of cognitive impairment and dementia in rural communities through the establishment of a baseline of cognitive status.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

The effects of Covid-19 on adolescents in the Loreto Amazon Region: How the pandemic has impacted educational achievement and their sexual and reproductive health.

Research project financed by federal funds from the United States of America, under subcontract with the University of Arizona.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Blas Blas, Magaly Marlitz.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	1,836
Others	154
Laboratory and patient care services	-
Total direct costs	1,990
Total Indirect Costs - Overhead	10
Total Costs	2,000

Project execution period: From August 2021 to June 2022.

Project General Objective: For this research we will evaluate the impact that COVID-19 has had on education and adolescent pregnancy in peri-urban areas of the Loreto region, in the districts of Nauta, Parinari and Saquena. We will focus on the effect school closures have had on adolescents and the long-term impacts on their reproductive health.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Peruvian/Brazilian Amazon center of excellence in Malaria (transmission dynamics of residual Malaria in the Amazon).

Research project financed by federal funds from the United States of America, under subcontract with The University of California San Diego.

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Gamboa Vilela, Dionicia Baziliza

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	745
Laboratory and patient care services	-
Total direct costs	745
Total Indirect Costs - Overhead	209
Total Costs	954

Project execution period: From July 2017 to March 2024.

Project General Objective: The main objective is to identify the risk factors for infection and residual disease of Malaria, both at the individual and family level, it will provide samples of parasites for detailed molecular analyzes of the population and epidemiological data to develop new mathematical models of malaria transmission.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Isolation and identification of CXCR4 and CXCR7 agonists from traditional phytopharmaceuticals as potential novel drugs for mental disorders.

Research project financed by federal funds from the United States of America, under direct contract with National Institutes of Health.

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Vaisberg Wolach, Abraham Jaime.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	289
Contract expenses	-
Travel expenses	-
Others	-
Laboratory and patient care services	-
Total direct costs	289
Total Indirect Costs - Overhead	-
Total Costs	289

Project execution period: From October 2020 to July 2023.

Project General Objective: Take advantage of the knowledge of traditional medicine to guide the discovery of molecules that act on novel targets that can improve the current treatment of mental disorders, thus providing better adherence, long-term results and functionality of the patient. The discovery of such molecules could also help to unravel the still poorly understood biological processes that underlie the emergence of these multidimensional, genetically complex and severely disabling diseases.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Syphilis immunology and biology to improve clinical management and vaccine design.

Research project financed by federal funds from the United States of America, under subcontract with the University of California

For the period from January 1, 2022 to December 31, 2022

Investigator: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	82
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	94
Laboratory and patient care services	-
Total direct costs	176
Total Indirect Costs - Overhead	-
Total Costs	176

Project execution period: From September 2018 to August 2022.

Project General Objective: The study is based on enrolling people with syphilis infection and following them to see how their laboratory values and clinical development change after receiving treatment.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Household air pollution and health: A multicountry LPG intervention trial.

Research project financed by federal funds from the United States of America, under subcontract with The John Hopkins University

For the period from January 1, 2022 to December 31, 2022

Researcher: Dr. Hartinger Peña, Stella Maria

	Project Execution (*)
	US\$
Direct costs	
Employee Benefits	-
Consulting	-
Training	-
Equipment and/or supplies	-
Contract expenses	-
Travel expenses	-
Others	57
Laboratory and patient care services	-
Total direct costs	-
Total Indirect Costs - Overhead	57
Total Costs	57

Project execution period: From September 2016 to June 2021.

Project General Objective: Provide intensive training opportunities in a variety of relevant scientific disciplines in the areas of environmental exposure and chronic and infectious lung diseases. Additionally, PulmPerú is focused on generating evidence of great impact worldwide, knowing and using strict methodologies to generate innovative and quality research for health in Peru together with young researchers.

(*) Covers the period subject to review, from January 1, 2022 to December 31, 2022.

IV. BACKGROUND AND SCOPE OF WORK

Our work was to perform an audit for the review of the expenses of Research Projects financed by federal funds of the United States of America, For the period from 1 January 2022 to 31 December 2022. The audit included the exam of the Expenditures Statements of each Research Project, performed in accordance with the Generally Accepted Government Auditing Standards (GAGAS), International Audit Standards (IAS) and the compliance supplement of the Office of Management and Budget – OMB of the United States of America – Circular A 133. Accordingly, we applied the procedures, standards, and guidelines of Universidad Peruana Cayetano Heredia's policies in regard to procedures, justification and control of the Research Projects' expenditures and other audit procedures that we may consider necessary.

Audit Scope

The scope of our audit work includes the review of all the expenditures transactions from January 1, 2022 to December 31, 2022. As part of a preliminary review and to determine the appropriate control environment, we reviewed the following documents:

- Agreements signed between the Universidad Peruana Cayetano Heredia and the National Institute of Health – NIH and the Center for Disease Control (CDC).
- Sub-agreements signed between the Universidad Peruana Cayetano Heredia and the universities of the United States of America, which are financed by NIH and subcontract the UPCH's services in order to carry out research.
- Progress reports of the projects.
- Organization charts.
- Accounting systems.
- Policies and procedures for acquisitions, purchases and contracting.

The review of the Statements of Expenditures of each project financed by NIH, including the budgeted amounts, reported expenses and compliance of the procedures established in the contracts and subcontracts.

The review of the proper justification of expenses incurred by the audited projects, which have original documentation that may support the expenses.

The review of the procedures of purchase, goods acquisition, tenders and quotes

The review of the staff contracting procedures in payroll and social benefits.

The review of the procedures of services provided by third parties, contracts, technical reports, service conformity certificates, according to the nature of the service.

As part of our audit, we considered the following standards:

- Standard Statement of Work for financial audits of non-US organizations contracted.
- Generally Accepted Government Auditing Standards of the United States of America (GAGAS).
- Compliance supplement of the Office of Management and Compliance (OMB - Office of Management and Budget) of the United States of America - Circular A 133.
- International Auditing Standards (IAS).

V. FINANCIAL, ACCOUNTING AND ADMINISTRATIVE VERIFICATION

5.1 Main accounting Policies

The main policies adopted by Universidad Peruana Cayetano Heredia during the preparation and presentation of the Statements of expenditures of the Research Projects have been applied consistently and are the following:

- a. Preparation basis of the Statements of expenditures
Statements of expenditures are expressed in U.S. dollars and have been prepared based on the execution/expense, which implies that these are recognized when met.
- b. Foreign currency and Exchange rate
Accounting transactions are registered in the currency of the Research Projects (U.S. dollars), for the preparation purposes of the Research Projects' statements of expenditures.

For the translation of the expenses made in local currency to U.S. dollars, the exchange rate at the date where the expense was registered.

5.2 Expenditures review of Research Projects

The date of the expense's documentation corresponds to the period subject to review from January 1, 2022 to December 31, 2022. These expenses documentation of Research Projects was verified to see if they had included the expenses made with the funds provided to the Research Projects, matter of our audit.

Formal requirements of the expenses

We verified all the original documents; invoices, receipts and other supporting documentation of expenses including within each entry, where the information is organized by expense date, and are also registered in the Statement of expenditures and the accounting registries of Universidad Peruana Cayetano Heredia.

We verified expenses from contracting staff devoted partial or totally to the Project, including salaries, social insurance, bonuses, vacations, severance payment and other labor benefits according to law.

We verified that national staff contracting complied with national regulations and according to employment contracts duly certified by the Labor Ministry and Employment Promotion, which specify obligations, contracting modality, professional category and salary.

We verified that employees' payroll payments are made monthly for each entity providing the corresponding payments stubs as established by the pay Labor Law, complying with the payment of bonuses, severance payment, vacations, and insurance Essalud. The allocation of employees' salary depends on whether this person is an administrative employee or in charge of research functions as administrative employees have fixed salary and research receive a fixed part and other amount corresponding to research projects in which they participate.

We verified that the monthly provisions of social benefits: bonuses, severance payment and vacations were performed.

The withholdings for pension funds, insurances and taxes are made according to the calculation detailed and are paid to the collecting entity (AFPs, SUNAT) within the timeline established by the Peruvian Labor Law.

Universidad Peruana Cayetano Heredia keeps files where it is possible to find in an orderly way: employees' contracts, payment stubs properly signed, with payment certificates of social benefits, withholding certificates for taxes, social security payments, tax payments, payroll payment and pension funds payment.

We verified that the staff file has request of staff recruitment, staff contracts, verification list for the contracts, staff unique file, police record, domicile certificate, copy of the National identity DNI or certificate of alien, resume, copy of degree and/or titles, diplomas, certificates of studies.

We verified that the staff contracts are duly signed, digitalized and filed in a file synchronized to the cloud of Universidad Peruana Cayetano Heredia.

We verified that travel expenses are supported by the liquidation of food, accommodation, transportation and trips made only for staff with labor purposes with justifying list and invoices, receipts and affidavits.

We verified sufficiently and properly the existence of the expense, confirming the reality and quality of the expense corresponding to a transaction or action verifying the proof of work done, products received, or services provided regularly, of acceptable quality and at agreed and reasonable prices and costs.

VI. INTERNAL CONTROL

We review and evaluate the internal control of Universidad Peruana Cayetano Heredia, in regard to the Research Projects, to obtain a sufficient understanding of the design of policies and control procedures, and if such policies and procedures have been applied.

The main audit procedures applied for the evaluation of internal control are detailed as follows:

- a. We obtained enough understanding of the internal control in order to plan the audit and determine the nature, opportunity and scope of the tests to be performed.
- b. We evaluated the inherent risk and the risk of control, and we determined the combined risk. The inherent risk is the susceptibility of an assertion, such as the balance of an account, a material incorrect statement, assuming that there are no policies nor procedures in the internal control regarding the assertion. Control risk is the risk that implies that a material wrong statement may occurred in an assertion and may not be timely prevented or detected by the internal control of Universidad Peruana Cayetano Heredia, its policies or procedures. The combined risk is the risk of not detecting a material error that exists in an assertion. The combined risk is founded in the efficiency of the audit procedure and its application by the auditor.
- c. We summarize the risk evaluations for each material assertion in the working papers. The risk evaluation has considered the following general categories where each assertion shall be classified:
 - Integrity
 - Existence
 - Accuracy
 - Valuation
 - Obligation
 - Presentation

- d. We evaluate the control environment, the sufficiency of the accounting system and the control procedures. It was emphasized in the policies and procedures applicable to policies and procedures regarding the capacity of Universidad Peruana Cayetano Heredia to register, process, summarize and report financial information consistent with the assertions contained in each account of the Statement of accountability.

For these purposes, we evaluate, among others, the control systems to:

- i. Ensure that charges to the program are appropriate and are duly documented.
- ii. The acquisition of goods and services.
- iii. The administration of the staff functions such as time control, salaries and benefits.
- iv. The administration disposition of goods (such as equipment and supplies, among others) acquired for the Research Projects; and
- v. Ensure compliance with the terms of subcontracts, applicable laws and regulations applicable that have a collective and material impact in the State of expenditures.

VII. COMPLIANCE WITH THE TERMS OF CONTRACTS, SUBCONTRACTS, LAWS AND APPLICABLE REGULATIONS

To perform the compliance evaluation with the terms of the contracts, subcontracts, laws and regulations applicable, we design and audit plan that considered among other aspects, the development of the following procedures:

- a. We identify on a selective basis the terms of contracts, subcontracts, relevant laws and regulations, and determine which, if not observed, could have a direct and significant effect on the State of Expenditures. For those effects:
 - i. We have enumerated all the impartial and specific clauses of the program included in the subcontracts which cumulatively, if not complied with, may have a direct and material effect on the Statement of Expenditure.
 - ii. We assess the inherent and control risk of a significant non-compliance occurring for each compliance requirement.
 - iii. We determine the nature, timing, and extent of audit procedures to test for errors, irregularities, and illegal acts, providing reasonable assurance of detecting cases of intentional or unintentional noncompliance with subcontract terms, regulations, and applicable laws that could have a material effect on the State of expenditures.
- b. Based on our sample, we determined if the payments were made in accordance with the terms applicable to the contracts, subcontracts, laws, and regulations.
- c. Based on our sample, we determined if the funds were spent for non-authorized purposes or are not in accordance with the terms applicable to the subcontracts.
- d. Based on our sample, we determined if the reports of the Statement of expenditures of the Project, advances and reimbursement requests contain information that is supported by the accounting books and registries.
- e. We determine a non-statistical selection of documents as a sample of expenses, where we have:
 - i. Verified if the incurred expenses for the research projects have been authorized and/or approved by the main researcher, presenting the proper supporting documentation.

- ii. Verified that the internal controls applied by the University for the acquisition of goods and services were compiled in accordance with the levels of approval and minimum amount required of quotes.
 - iii. Validated that there are contracts for the acquisition of a good or service, that the deadlines established are met and the existence of service conformity or reception of the good.
 - iv. Verified the existence of the original payment receipts (Invoices, receipts, tickets, others).
 - v. Verified that the documents that support the expense do not have amendments.
- f. We determined a non-statistical selection of documents as a sample of deliveries to be rendered, where we have:
- i. Verified if the deliveries to report for the research projects have been authorized and/ or approved by the main researcher, presenting properly the supporting documentation.
 - ii. Validated that all money has been transferred and reported in the estimated time by the requesting person.
 - iii. Verified the transfer to the Universidad Peruana Cayetano Heredia account, to reimburse the excess of delivery to be reported.
- g. We determine a non-statistical selection of documents as a sample of contractual expenses, where we have:
- i. Verifying that the detail of the expenses incurred is attached to the invoice and that these have been approved by the General Directorate of Administration for their sending to the financier.
 - ii. Validated that the deadlines established in the subcontract were complied with, for the presentation of the operating reports to the funding entity.
- h. We determined a non-statistical selection of documents for the Projects, where we have:
- i. Confirmed the compliance of the submittance of operating and financial reports to the funding entity through the system Era-commons.
 - ii. Verified that the Overhead estimation is in accordance to the guidelines of NIH, and transferred to the Indirect costs centers and used for the purposes established according to the University board of directors.
- i. We determined a non-statistical selection of documents as a sample of asset acquisition, where we have:
- i. Verified the compliance of the NIH standards in the classification of assets in expenses higher than US\$ 5,000, other minor expenses would be considered supplies.
 - ii. Validated that the assets acquired with the financing of the, have been properly coded and inventoried by the University and recorded in accounting.

- j. We determined the Projects opened and closed in 2022, where we have:
 - i. Review the opening procedures of the projects and that the beginning dates match with the contracts and subcontracts.
 - ii. Review the contracts, subcontracts, and addendum to determine the closure date of each of the research project.
 - iii. Verified the compliance of the Board of directors of Projects' closure.
 - iv. Verified the Accounting closure of the project's Indirect costs center.

VIII. OPPORTUNITIES OF IMPROVEMENT AND RECOMMENDATIONS

8.1 Information about projects in the R2 system

During our review process, we have evidenced the existence of information that is not reconciled with the project contracts and the expense report. Below, we show the identified cases:

Project completion addendum date		
Project No.	According to System R2	According to contract
12	-	09/30/2023
9	09/29/2023	09/30/2023

Recommendation:

We recommend implementing review procedures in order to verify the correct transfer of information about the projects managed by the University, which will allow having reports with accurate and updated information.

Comments from the Universidad Peruana Cayetano Heredia:

It has been considered opportune to correct the data in the system as soon as applicable. Likewise, the Universidad Peruana Cayetano Heredia, through the Technology Department, where all computer support for the Institution has been centralized, has developed various automated reports, through SQL Server Reporting Services, within which is the one referred to Statements of Surrender of Project cost centers, including Federal Funds. All this data is extracted directly from the accounting base.

Auditor Comments:

implemented.

IX. FOLLOW-UP TO RECOMMENDATIONS FROM PREVIOUS YEARS

Below are the recommendations resulting from previous years and their current situation:

Recommendation	Year	Situation current
1. Cost of personnel in the Research Project	2016	In process (*)
5. Consolidated report on the status of project surrender	2021	implemented

(*) To date this process has not yet been implemented.

Comments from the Universidad Peruana Cayetano Heredia:

Universidad Peruana Cayetano Heredia has resumed the adequacy of the software acquired in 2018 and has carried out internal performance tests. Likewise, it has been implementing an ERP system that includes a research management module and it was necessary to confirm the feasibility of having a time control module in said system. For this reason, an activity plan has been developed for updating and implementing the software; This includes contacting the potential update service provider to:

- Management of activities (in evaluation process)
- User Management
- Reports
- Others

This activity plan considers a 4-month update period, which includes the testing stage and its subsequent implementation for the recording of times in systematized control sheets by the researchers of the different projects.

Finally, and as complementary information, the dedication record of the researchers in their projects is recorded in the application documents. For example, on NIH-funded projects, the dedication percentage and salary cap are listed in "other support" category.