

UNIVERSIDAD PERUANA CAYETANO HEREDIA

Research projects funded by federal funds of the United States of America, through contracts and subcontracts subscribed between Universidad Peruana Cayetano Heredia and National Institute of Health (NIH) and universities of the United States of America, respectively, for the period from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

Research projects funded by federal funds of the United States of America, through contracts and subcontracts subscribed between Universidad Peruana Cayetano Heredia and National Institute of Health (NIH) and universities of the United States of America.

Audit Report to the Statements of Expenditures for the period from 1 January 2021 to 31 December 2021.

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US\$ = U.S. dollar

I. INDEPENDENT AUDITOR'S REPORT

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

1. We have audited the Statements of Expenditures of seventy five Research Projects (hereinafter referred to as the Projects) of **Universidad Peruana Cayetano Heredia** (an educational non-profit entity), which are funded by federal funds of the United States of America, through contracts and subcontracts between Universidad Peruana Cayetano Heredia and the National Institute of Health (hereinafter referred to as NIH) and several Universities of the United States of America, respectively, for the period from 1 January 2021 to 31 December 2021.

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/expense basis. This responsibility includes designing, implementing and maintaining the internal control relevant for 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 these 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 North 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 auditor's report (continued)

Internal Control Compliance Report

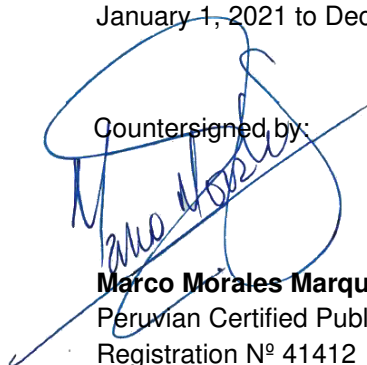
4. The Administration Directorate General of **Universidad Peruana Cayetano Heredia** is responsible for establishing and keeping an effective internal control. When planning and performing our audit, we consider the internal control that may have a direct and material effect on the expenditures to determine 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 2021 to 31 December 2021.

Opinion

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, 2021 to December 31, 2021.

Countersigned by:



Marco Morales Marquina (Partner)
Peruvian Certified Public Accountant
Registration N° 41412

Panez, Chacaliza y Asociados Sociedad Civil de R.L.

Septiembre 15, 2022
Lima, Peru

UNIVERSIDAD PERUANA CAYETANO HEREDIA

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

For the period from 1 January 2021 to 31 December 2021

II. INTRODUCCION

This report presents the audit results of the following Research Projects, for the period from 1 January 2021 to 31 December 2022:

Proyecto 1: Program for advanced research capacities for aids in Peru (Paracas) harnessing implementation science.

Proyecto 2: Addressing hypertension and diabetes through community-engaged systems in Puno, Peru (Andes study).

Proyecto 3: Improving diagnostic and management tolls for neurocysticercosis (Peru - JHU TMRC Program).

Proyecto 4: Peru infectious diseases epidemiology research training consortium.

Proyecto 5: Development and validation of a model based on agents to promote cysticercosis control.

Proyecto 6: Transversal study to detect cases of subarachnoid neurocysticercosis at community level.

Proyecto 7: Fend for TB.

Proyecto 8: Prevalence and incidence of neonatal hsv (herpes simplex) in pre-term infants.

Proyecto 9: An immune system for the city: a new paradigm for control of urban disease vectors.

Proyecto 10: 1/2-regional geohealth hub centered in Peru - Peru.

Proyecto 11: Cooperasalud, technical support program in prevention and control of HIV to the Armed Forces of Peru

Proyecto 12: HIV prevention and care for Peruvian msm and transgender women.

Proyecto 13: A mobile phone short message service intervention to increase retention in HIV (Weltel Peru).

Proyecto 14: Combined albendazole and praziquantel in subarachnoid NCC, CCC, lead application.

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

Proyecto 16: Patient-centered intervention to prevent tuberculosis among children < 5 years old.

Proyecto 17: University of California global health institute program for fellows and scholars.

Proyecto 18: Syphilis immunology and biology to improve clinical management and vaccine design.

Proyecto 19: Implementation of the ring strategy for the control of Neurocysticercosis integrated with the community.

Proyecto 20: The effect of strongyloides stercoralis on htlv-1 disease progression.

Proyecto 21: Training in infectious diseases in Peru - time for capacity strengthening in clinical research (training in parasitic diseases and central nervous system infections).

Proyecto 22: The eating behavior with sugar of the vector of malaria nyssorhynchus darlingi and the development of attractive toxic sugar bait (ATSB) to increase the intervention success in Peru.

Proyecto 23: Markers of triclabendazole resistant fasciolosis the highlands of Peru.

Proyecto 24: Alternative Therapeutic Approaches for the Control of Brain Inflammation.

Proyecto 25: Syphilis immunology and biology to improve clinical management and vac.

- Proyecto 26: Study of immune modulation in the neurocysticercosis of taenia solium through the use of a new post oncosfera in vitro model.
- Proyecto 27: Using burden of treatment as a clinical indicator of barriers to multimorbidity management in Peru: a mixed methods approach.
- Proyecto 28: Spatiotemporal adaptation of anopheles darlingi in diverse ecological settings.
- Proyecto 29: Planning an MD-MSc combined degree program focused on translational research.
- Proyecto 30: Co-flu Peru: Natural history of SARS-COV-2 in comparison with the influenza virus: a multicenter study focused in the south hemisphere and the equatorial regions
- Proyecto 31: Translational research development for endemic infectious diseases of Amazonia.
- Proyecto 32: Liver cystic echinococcosis: pre-clinical assessment of a novel, single step percutaneous treatment procedure (intracystic albendazole sulfoxide injection).
- Proyecto 33: Close the gap between the identification and the treatment of the cervical abnormalities in Lima
- Proyecto 34: Research training in chronic, non-communicable respiratory diseases in Peru.
- Proyecto 35: Immunology of asymptomatic malaria and the effects of immunity on plasmodium transmission.
- Proyecto 36: Predictors of cardiomyopathy progression in a chagas disease cohort in Bolivia.
- Proyecto 37: Tuberculosis research project upch-osu.
- Proyecto 38: Infectious diseases training program in Bolivia: south - south training with Peru.
- Proyecto 39: Demonstration project to apply the principles and practices of the universal prevention curriculum (UPC) to schools in Peru 2 years.
- Proyecto 40: Administrative supplement to syphilis immunology and biology to improv.
- Proyecto 41: A prospective study of acute flaccid myelitis (afm) to define natural history, risk factors, and pat.
- Proyecto 42: Novel nanoparticulate diagnostics for cerebral toxoplasmosis and chagas in HIV patients living in Latin America.
- Proyecto 43: Ictus: Interdisciplinary cerebrovascular diseases training program in South America.
- Proyecto 44: International cohort study of children born to women infected with zika virus during pregnancy.
- Proyecto 45: CCASANET 2020 - 2022
- Proyecto 46: Household air pollution and health: a multicountry LPG intervention trial.
- Proyecto 47: International technology transfer center - Peru.
- Proyecto 48: Combined albendazole plus praziquantel in subarachnoid NCC, DCC application.
- Proyecto 49: Chaka: strengthening research support structures in the andean region.
- Proyecto 50: CCASANET: The Caribbean, Central and South America Network
- Proyecto 51: Natural infection of norovirus and sapovirus in a birth cohort in a peruvian periurban community.
- Proyecto 52: Core B data management.
- Proyecto 53: Population assessment of Alzheimer's and related dementias in rural northern Peru northern Peru.
- Proyecto 54: Isolation and identification of CXCR4 and CXCR7 agonists from traditional phytopharmaceuticals as potential novel drugs for mental disorders.
- Proyecto 55: Enabling infectious disease research capacity in the peruvian amazon.
- Proyecto 56: Project of febrile illness surveillance in the andean and amazon countries (pisaac).
- Proyecto 57: Fogarty global health fellows coordinating center (The UJMT global consortium: building research capacity through mentored training).
- Proyecto 58: Prevalence of vertebral fracture and bone low density in Peruvian women with VIH.
- Proyecto 59: Orphan GPCR ligands from ethnobotanical sources as novel drugs for mental disorders.

- Proyecto 60: 2/2 - regional geohealth hub centered in Peru - US.
Proyecto 61: Knowledge, practices, and attitudes towards children oral health.
Proyecto 62: HIV risk and psychosocial health among transgender women in Peru.
Proyecto 63: Colonization of the intestine with pathogens with antimicrobial resistance.
Proyecto 64: Improving participation in vector controls campaigns through behavioral economics.
Proyecto 65: Evaluation of urgencies, emergencies and essential neurosurgical in Peru.
Proyecto 66: Statistical methods for correlated outcome and covariate errors in studies of HIV/AIDS.
Proyecto 67: Effectivity of the intervention with text message in the collection of medicine and retention in the care of young adults living with HIV in a hospital of Lima.
Proyecto 68: Placental colonization by treponema pallidum, congenital syphilis & novel vaccine.
Proyecto 69: Clinical trial comparing the effectiveness of cefixime versus penicillin g for treatment of early syphilis.
Proyecto 70: Peruvian / Brazilian amazon center of excellence in malaria (transmission dynamics of residual malaria in the amazon).
Proyecto 71: Iquitos insectary and transmission biology
Proyecto 72: Characterization of infectious agent that causes leishmaniasis tegumentaria.
Proyecto 73: Use of bisphosphonates to reduce the calcification process in animal models of cysticercosis.
Proyecto 74: Acceptability, feasibility, and preliminary impact of a web-based, HIV prevention toolkit with cisgender Male couples in Lima.
Proyecto 75: Improving national knowledge and awareness of fungal infections in Peru.

III. GENERAL INFORMATION OF THE RESEARCH PROJECTS

3.1 Legal incorporation of Universidad Peruana Cayetano Heredia

The Universidad Peruana Cayetano Heredia was created by Supreme Decree N° 018 dated 22 September 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 Funding of Research Projects

The funding 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 fundings are performed in two ways: directly between UPCH and NIH; and indirectly, through a subcontract where NIH finances a university in the United States of North America which at the same time subcontracts the research services of UPCH. The duration of our review is from 1 January 2021 to 31 December 2021.

3.3 Consolidated Statements of expenditures of the Research Projects

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

(*) According to the details provided in the Research Projects, these have different annual budget duration, therefore it is not possible to perform a comparison between budget versus implementation. Consequently, we present the expenditures executed in accordance to the previously indicated in the Terms of Reference in the period from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

From the Research Projects funded by federal funds of the United States of America, under contracts and subcontracts subscribed between Universidad Peruana Cayetano Heredia and the funding bodies.

For the period from 1 January 2021 to 31 December 2021.

	Direct Costs							Indirect Costs	Total	
	Employees 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	72,718	15,552	105,460	7,023	118,295	3,488	14,859	-	7,872	345,267
Project 2	68,901	-	-	4	258,516	2,570	-	-	11,492	341,483
Project 3	206,647	10,800	-	25,489	26,217	1,279	26,425	-	12,363	309,220
Project 4	61,969	-	104,275	78,332	-	3,347	27,405	3,923	6,803	286,054
Project 5	122,225	2,174	-	35,152	-	3,548	46,658	44,285	21,842	275,884
Project 6	131,375	-	385	30,178	-	20,101	48,807	20,693	23,084	274,623
Project 7	123,469	-	-	47,682	-	4,524	2,941	2,084	9,461	190,161
Project 8	158,660	21	-	3,480	-	975	1,090	4,841	15,711	184,778
Project 9	103,521	17,358	2,109	3,870	-	14,143	17,301	-	12,494	170,796
Project 10	52,475	1,082	3,255	-	92,222	-467	4,835	-	8,646	162,048
Project 11	101,798	28,206	404	16,874	-	3,786	8,282	-	151	159,501
Project 12	125,229	7,991	1,201	90	-	715	18,394	77	3,010	156,707
Project 13	132,614	399	6,686	589	-	-	10,128	571	2,873	153,860
Project 14	127,359	212	-	9,285	-	501	6,257	1,633	6,330	151,577
Project 15	97,557	-	883	25,479	-	12,037	7,296	1,002	5,187	149,441

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	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 16	126,535	-	-	727	-	1,370	950	-	9,838	139,420
Project 17	7,862	-	34,843	22,741	-	3,148	43,495	8,349	9,607	130,045
Project 18	68,617	2,865	561	25,028	-	1,469	11,834	14,693	15	125,082
Project 19	88,573	8,317	2,817	3,193	-	4,602	6,221	3,528	7,347	124,598
Project 20	89,026	5,000	-	7,975	-	14	1,500	7,717	8,475	119,707
Project 21	29,721	1,320	24,801	19,211	23,212	2,776	11,696	294	5,519	118,550
Project 22	60,708	700	-	8,204	-	4,724	32,425	23	10,513	117,297
Project 23	47,599	17,396	-	27,452	-	2,244	7,656	-	8,263	110,610
Project 24	70,357	2,548	387	14,417	-	809	10,171	1,424	8,055	108,168
Project 25	42,309	10,363	-	5,903	-	593	15,352	21,013	5,308	100,841
Project 26	57,817	14,986	1,507	4,717	-	1,653	6,203	4,770	6,055	97,708
Project 27	69,470	14,214	-	1,631	-	23	2,748	-	4,887	92,973
Project 28	44,013	400	-	7,392	-	8,601	27,995	201	2,087	90,689
Project 29	64,314	-	7,200	-224	-	-	13,375	-	5,202	89,867
Project 30	71,351	-	-	2,415	-	6,057	1,011	3,195	4,888	88,917

UNIVERSIDAD PERUANA CAYETANO HEREDIA

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	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
Research Projects										
Project 31	26,595	-	8,301	10,310	-	6,691	31,373	1,518	3,826	88,614
Project 32	22,494	32,071	1,721	5,017	-	98	12,908	3,469	3,246	81,024
Project 33	66,136	-	1,600	495	-	1,118	760	-	2,400	72,509
Project 34	25,458	-	30,581	4,054	-	-	-	-	3,260	63,353
Project 35	40,747	-	-	2,752	-	6,575	4,601	1,385	2,428	58,488
Project 36	27,856	-	-	18,493	-	477	7,479	-	4,036	58,341
Project 37	7,091	166	1,095	2,496	-	440	4,720	31,203	10,215	57,426
Project 38	12,513	-	19,540	-	-	2,779	7,871	1,500	2,111	46,314
Project 39	17,143	9,327	-	-	-	139	6,823	-	3,592	37,024
Project 40	16,241	-	-	16,684	-	-	71	-	3,127	36,123
Project 41	25,768	-	-	116	-	245	7,552	85	1,892	35,658
Project 42	23,310	-	-	-	-	-	8,853	-	1,891	34,054
Project 43	12,535	-	3,580	5,020	-	-	8,880	-	1,962	31,977
Project 44	9,408	-	-	-	17,543	7	15	913	1,034	28,920
Project 45	23,475	-	-	2,222	-	-	1,687	-	2	27,386

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

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For the period from 1 January 2021 to 31 December 2021.

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	Employees 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	23,595	-	-	-	-	-	-	2,259	25,854
Project 47	16,262	4,851	-	1,801	-	-	-	2,647	25,561
Project 48	17,793	-	-	97	-	-	927	-	22,769
Project 49	14,054	195	3,069	106	-	33	-	-	21,591
Project 50	13,419	4,915	-	-	-	-	47	-	19,929
Project 51	764	-	-	11,429	-	3	3,172	-	17,020
Project 52	12,018	-	-	473	-	998	327	-	14,587
Project 53	10,209	437	-	-	-	-	-	-	11,732
Project 54	4,849	4,174	240	752	-	-	488	-	11,614
Project 55	10,863	-	-	-	-	-	-	-	11,367
Project 56	7,960	3,000	-	-	-	-	-	-	10,995
Project 57	399	-	-	713	-	-	1,137	7,500	9,749
Project 58	-	-	-	-	-	-	302	8,217	8,520
Project 59	34	7,283	390	-	-	-	72	-	7,779
Project 60	388	-	13,886	-	-	-	-6,640	-	7,634

UNIVERSIDAD PERUANA CAYETANO HEREDIA

CONSOLIDATED STATEMENT OF EXPENDITURES

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For the period from 1 January 2021 to 31 December 2021.

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	Employees 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	-	-	6,600	-	-	-	-	-	6,600
Project 62	5,245	-	-	-	-	-	-	1,231	6,476
Project 63	2,017	-	230	205	-	-	2,773	733	6,148
Project 64	3,029	-	-	15	-	1,001	1,886	-	5,931
Project 65	-	-	400	435	-	918	1,047	-	2,820
Project 66	1,924	-	-	-	-	-	-	20	1,944
Project 67	1,329	-	-	-	-	-	-	-	1,329
Project 68	182	-	-	845	-	-	-	-	1,027
Project 69	-	-	-	-	-	-	876	-	86
Project 70	34	-	-	-	-	-	832	-	866
Project 71	-	-	-	773	-	-	-	-	773
Project 72	386	-	-	-	-	-	-	-	386
Project 73	-	-	-	-	-	-	10	-	250
Project 74	-	-	-	-	-	-	134	-	134
Project 75	-	-	-	-	-	-	-	35	35

3.4 Statement of individual expenditure of the Research Projects

The statements of expenditure corresponding to the management from 1 January 2021 to 31 December 2021 funded directly or indirectly by NIH, are the following:

Project 1

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gotuzzo Herencia, Jose Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	72,718
Training	105,460
Travel expenses	3,488
Consulting	15,552
Equipment and/or supplies	7,023
Contract expenses	118,295
Other	14,859
Total direct costs	337,395
Total indirect costs- Overhead	7,872
Total costs	345,267

Project execution period: From June 2020 to December 2024.

Project General Objective: The objective of this research is to create young Peruvian Researchers in the health area with the necessary tools to conduct investigations independently and successfully in the different fields of HIV required to ensure the appropriate care of people living with HIV and eventually achieve the goal of eliminating the transmission of HIV.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 2

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Malaga, German.
Dr. Hartinger, Stella.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	68,901
Travel expenses	2,570
Equipment and/or supplies	4
Contract expenses	258,516
Total Direct costs	329,991
Total Indirect costs- Overhead	11,492
Total costs	341,483

Project execution period: From September 2020 to August 2022.

Project General Objective: Project based on a multi-component community intervention to address arterial hypertension (HT) and diabetes mellitus 2 (DM-2), in rural communities in the city of Puno. The intervention will be evaluated to verify its effectiveness and ensure future adoption across the country in real world settings. Develop strategies and knowledge to support greater acceptance through effective implementation and extension of intervention, program and policies at regional and national level, working with our partners and stakeholders, including political, economic and social elements.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 3

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. García Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	206,647
Travel expenses	1,279
Consulting	10,800
Equipment and/or supplies	25,489
Contract expenses	26,217
Other	26,425
Total direct costs	296,857
Total indirect costs- Overhead	12,363
Total Costs	309,220

Project execution period: From April 2017 to March 2022.

Project General Objective: The main objective is providing a fully functional research network, as well as take advantage of our research network in Peru in this endemic disease.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 4

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Peru infectious diseases epidemiology research training consortium

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Lescano Guevara, Andrés Guillermo

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	61,969
Training expenses	104,275
Travel expenses	3,347
Equipment and/or supplies	78,332
Laboratory and patient care services	3,923
Others	27,405
Total direct costs	279,251
Total indirect costs- Overhead	6,803
Total costs	286,054

Project execution period: From September 2005 to December 2024.

Project General Objective: In the first stage of our grant, "Peru Infectious Diseases Epidemiology Research Training Consortium & quot: The consortium NAMRU- 6-UPCH-JHBSPH-USUHS has contributed to the construction of the sustainable research capacity in Peru. Two master graduates and a Phd student back in Peru and are studying the key epidemiological and ecological aspects of the pandemic and seasonal flu and three students are finishing the courses. Also, we established a self-sustaining case, epidemiology masters funded in Peru, which is provided by more than 30 phd from Peru / Abroad and Phd candidates, many financed by research and formation scholarships of NIH. We have trained 43 students in two successive groups, and the students of the first group have published 13 articles in magazines reviewed by peers within a year of training, big progress has been made, but substantial efforts are still necessary.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 5

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Development and validation of a model based on agents to promote cysticercosis control

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	122,225
Travel expenses	3,548
Consulting	2,174
Equipment and/or supplies	35,152
Laboratory and patient care services	44,285
Others	46,658
Total direct costs	254,042
Total indirect costs- Overhead	21,842
Total costs	275,884

Project execution period: From July 2019 to June 2024.

Project General Objective: The brain (cysticercosis, NCC) is a main cause of Preventable Epilepsy, due to swine infection and slow development in poor rural zones. A Validated Control Strategy with increased interventions has been requested For T. Solium In several countries for 2020. A Group Of New Diagnosis, Medicines and a Vaccine for Pigs have make this objective reachable. However, the high cost of the prospective field trials and the existence of just a few Research Groups with Experience and the infrastructure required to perform this job has led to a critic to identify which strategy control have more probabilities to succeed. There is an urgent need to move this action forward. The key to reach the goal 2020 is the development of an Accurate Transmission Model that can identify those interventions that have higher likelihood of success for subsequent tests in prospective field tests. The Ideal model would be constructed on a flexible platform that allows In-Silico tests of combinations of all the intervention approaches available and includes modifiable parameters to allow adapting to a variety of endemic regions. Such Model Will serve as a valuable tool.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 6

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Transversal study to detect cases of subarachnoid neurocysticercosis at community level

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	131,375
Training	385
Travel expenses	20,101
Equipment and/or supplies	30,178
Laboratory and patient care services	20,693
Other	48,807
Total direct costs	251,539
Total indirect costs- Overhead	23,084
Total costs	274,623

Project execution period: From July 2018 to June 2023.

Project General Objective: The objective of this research is to validate a new screening test for the antigen detection (AG) in urine for NCCSA in an endemic population, with confirmation through brain magnetic resonance, to understand the underlying prevalence of NCCSA and the performance of community level test. 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 (POC) that can be mass-produced.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 7

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Fend for TB

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Ugarte Gil, Cesar

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	123,469
Travel expenses	4,524
Equipment and/or supplies	47,682
Laboratory and patient care services	2,084
Others	2,941
Total direct costs	180,700
Total indirect costs- Overhead	9,461
Total costs	190,161

Project execution period: From June 2020 to May 2025.

Project General Objective: The objective of this research is to provide biological samples as well as quality clinical information for TB investigations of the FEND group for TB in order to evaluate the diagnostic accuracy and operational characteristics of new in vitro diagnostic tests in the context of endemic countries.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 8

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 or the United States of America, under subcontract with University of Alabama.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Carcamo Cavagnaro, Cesar Paul.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	158,660
Travel expenses	975
Consulting	21
Equipment and/or supplies	3,480
Services of laboratory and patient care	4,841
Others	1,090
Total direct costs	169,067
Total indirect costs- Overhead	15,711
Total costs	184,778

Project execution period: From August 2016 to December 2022.

Project General Objective: The objective of this research is to estimate the incidence of neonatal herpes through the combination of two components. The first Will allow to determine the prevalence of infection by HSV confirmed by PCR in neonates with the diagnosis of suspicion of sepsis or meningitis (SSM). The second component will estimate the SSM incidence of in a prospective group of newborns.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 9

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with the University of Pennsylvania.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Paz Soldan Parlette, Valerie Andrea.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	103,521
Training	2,109
Travel expenses	14,143
Consulting	17,358
Equipment and/or supplies	3,870
Others	17,301
Total Direct cost	158,302
Total Indirect cost- Overhead	12,494
Total cost	170,796

Project execution period: From July 2020 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 cell to the landscape scale, and will test the new approach against a conventional one using a random cluster design in an ongoing vector control program of Chagas disease in the city of Arequipa.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 10

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

1/2-regional geohealth hub centered in Peru - Peru

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gonzales Rengifo, Gustavo Francisco

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	52,475
Training	3,255
Travel expenses	-467
Consulting expenses	1,082
Contract expenses	92,222
Other	4,835
Total Direct cost	153,402
Total Indirect cost- Overhead	8,646
Total cost	162,048

Project execution period: From September 2015 to July 2022.

Project General Objective: The objective of this project is i) to conduct an intervention study of indoor air pollution and use of biomass.

- to evaluate the relation between outdoor air pollution and cardiorespiratory disease in Lima, Peru.
- Prepare a predictive model of the impact of climate change on diarrheal diseases and vector-borne diseases (dengue, chagas and malaria)

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 11

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Cooperasalud, technical support program in prevention and control of HIV to the Armed Forces of Peru

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Caceres palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	101,798
Training	404
Travel expenses	3,786
Consulting	28,206
Equipment and/or supplies	16,874
Other	8,282
Total Direct cost	159,350
Total Indirect cost- Overhead	151
Total cost	159,501

Project execution period: From November 2019 to November 2023.

Project General Objective: The objective of this research is to strengthen the resources and strategies of prevention and control of HIV in the Armed Forces of Peru.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 12

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

HIV prevention and care for Peruvian MSM and transgender women.

Research Project funded by federal funds or the United States of America, under subcontract with The Regents of the University of California.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	125,229
Training	1,201
Travel expenses	715
Consulting expenses	7,991
Equipment and/or supplies	90
Services of laboratory and patient care	77
Others	18,394
Total Direct cost	153,697
Total Indirect cost- Overhead	3,010
Total cost	156,707

Project execution period: From February 2016 to December 2021.

Project General Objective: The objective is to improve the attention quality in prevention and treatment of HIV address to the HSH and transwomen population in the intervention zone; in the context of proper attention to the population needs, taking as framework a health approach of right to health care in the context of continuous prevention and attention of HIV.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 13

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 or the United States of America, under direct contract with National Institute of Health - NIH.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Menacho Alvirio, Luis Alberto.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	132,614
Training expenses	6,686
Consulting expenses	399
Equipment and/or supplies	589
Laboratory and patient care services	571
Other	10,128
Total Direct cost	150,987
Total Indirect cost- Overhead	2,873
Total cost	153,860

Project execution period: From August 2020 to July 2025.

Project General Objective: The objectives of this research are:

- 1) Develop an SMS-based intervention to be delivered with WeITel to increase retention in HIV care among HIV + MSM in Peru.
- 2) Determine the efficacy of the intervention to increase retention in HIV care compared to standard of care.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 14

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with National Institute of Health - NIH.

For the period from 1 January 2021 to 31 December 2021.

Researcher: Dr. García Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	127,359
Travel expenses	501
Consulting	212
Equipment and/or supplies	9,285
Laboratory and patient care services	1,633
Other	6,257
Total Direct cost	145,247
Total Indirect cost- Overhead	6,330
Total cost	151,577

Project execution period: From September 2015 to July 2022.

Project General Objective: The objective of the study is the proportion of patients with disappearance of their parasitic lesions in neuroimaging six months after the start of treatment. Secondary outcomes include decreased volume of parasitic masses measured by MRI at 3 and 6 months after the start of treatment, clinical improvement assessed as the proportion of patients 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 circulating parasite antigen levels at 3 and 6 months after the start of treatment, and the proportion of patients whose lesions resolve and do not relapse at 12 months after treatment.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

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 funded by federal funds or the United States of America, under subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	97,557
Training	883
Travel expenses	12,037
Equipment and/or supplies	25,479
Laboratory and patient care services	1,002
Other	7,296
Total direct costs	144,254
Total Indirect costs- Overhead	5,187
Total costs	149,441

Project execution period: From April 2019 to March 2024.

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

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 16

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Otero Vegas, Larissa.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	126,535
Travel expenses	1,370
Equipment and/or supplies	727
Other	950
Total Direct cost	129,582
Total Indirect cost- Overhead	9,838
Total cost	139,420

Project execution period: From September 2018 to February 2023.

Project General Objective: Objective 1: Develop an intervention package to increase the information, motivation and memory to complete the isoniazid preventive therapy (TPI) in children < 5 years to those prescribed with TPI.

Objective 2: Determine the feasibility and acceptability and measure the effectivity of the intervention package in increasing the adherence and completion of TPI.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 17

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

University of California global health institute program for fellows and scholars

Research Project funded by federal funds of the United States of America, under subcontract with University of California, San Francisco.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Lescano Guevara, Andrés Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	7,862
Training	34,843
Travel expenses	3,148
Equipment and/or supplies	22,741
Laboratory and patient care services	8,349
Other	43,495
Total Direct cost	120,438
Total Indirect cost- Overhead	9,607
Total cost	130,045

Project execution period: From April 2012 to June 2022.

Project General Objective: Glocal is a program through the consortium of four universities in California, USA, funded by the National Institutes of Health of the USA with the objective of providing mentored research internships during 12 months in Peru in favor of North American or Peruvian researchers.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 18

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Syphilis immunology and biology to improve clinical management and vaccine design

Research Project funded by federal funds or the United States of America, under subcontract with University of Southern California.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	68,617
Training	561
Travel expenses	1,469
Consulting	2,865
Equipment and/or supplies	25,028
Laboratory and patient care services	14,693
Other	11,834
Total Direct cost	125,067
Total Indirect cost- Overhead	15
Total cost	125,082

Project execution period: Desde febrero 2021 hasta agosto 2022.

Project General Objective: This project is based on enrolling people with infection of syphilis and follow up with them to see how their lab values change and its clinic development after receiving treatment.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 19

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Implementation of the ring strategy for the control of Neurocysticercosis integrated with the community

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Lescano, Hector Hugo

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	88,573
Training	2,817
Travel expenses	4,602
Consulting	8,317
Equipment and/or supplies	3,193
Laboratory and patient care services	3,528
Other	6,221
Total Direct cost	117,251
Total Indirect cost- Overhead	7,347
Total cost	124,598

Project execution period: From August 2019 to July 2024.

Project General Objective: The main objective is to develop an adoptable approach for the TA as a program of T. solium control.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 20

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Montes Delgado, Martin.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	89,026
Travel expenses	14
Consulting expenses	5,000
Equipment and/or supplies	7,975
Laboratory and patient care services	7,717
Other	1,500
Total Direct cost	111,232
Total Indirect cost- Overhead	8,475
Total cost	119,707

Project execution period: Desde marzo 2018 hasta febrero 2023.

Project General Objective: The objective of this research is to prove two hypothesis:

- 1) The infection for SS leads to an increase of proviral charge of HTLV-1, infected cells and malignant transformation of T CD4+ cells. We will compare the proviral charge and infected T CD4+ number of cells in peripheral blood using dyeing for CADM1 and the loss of CD7 expression (early mark of malignant cell transformation). In the co-infection for HTLV-1/SS before and up to 6 months after the treatment for SS; co-infection cases with more than 5 years of follow up or controls; co-infected patients of HTLV-1/SS subsequently followed.
- 2) Early cell transformation (CADM1 positive, CD7 low) is driven by diverse mechanisms:
 - a) lymphoproliferation driven by virus (proviral charge, lymphoproliferation driven by antigens and spontaneous); bacterial translocation and swelling associated and/or expansion of T regulating cells. These studies will test the importance of infection for SS as co factoring in lymphoproliferation disorders, as well as exploring new possible therapeutical strategies against SS in patients with HTLV-1 and general population.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 21

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Training in infectious diseases in Peru - time for capacity strengthening in clinical research (training in parasitic diseases and central nervous system infections).

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	29,721
Training	24,801
Travel expenses	2,776
Consulting expenses	1,320
Equipment and/or supplies	19,211
Laboratory and patient care services	294
Contract expenses	23,212
Other	11,696
Total Direct cost	113,031
Total Indirect cost- Overhead	5,519
Total cost	118,550

Project execution period: From July 1999 to February 2026.

Project General Objective: The objective of this research is the training in infectious diseases that is essential to build the research infrastructure in Peru, so that they can study infectious diseases of local importance.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 22

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

The eating behaviour with sugar of the vector of malaria nyssorhynchus darlingi and the development of attractive toxic sugar bait (ATSB) to increase the intervention success in Peru

Research Project funded by federal funds of the United States of America, under subcontract with the Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	60,708
Travel expenses	4,724
Consulting	700
Equipment and/or supplies	8,204
Laboratory and patient care services	23
Others	32,425
Total Direct cost	106,784
Total Indirect cost- Overhead	10,513
Total cost	117,297

Project execution period: From April 2019 to March 2022.

Project General Objective: The objective of this Project is to provide innovative quantitative information on the time, place and frequency of feeding with sugar essential for the reproductive success of the male mosquito and for the female maximization of egg production and survival in the main vector of South American malaria, Nyssorhynchus darlingi. 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 increase local interventions against malaria that can lead to eradication in similar settings throughout the world.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 23

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Markers of triclabendazole resistant fasciolasis the highlands of Peru

Research Project funded by federal funds of the United States of America, under subcontract with National Institute of Health - NIH.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gotuzzo Herencia, Jose Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	47,599
Travel expenses	2,244
Consulting	17,396
Equipment and/or supplies	27,452
Other	7,656
Total Direct cost	102,347
Total Indirect cost- Overhead	8,263
Total cost	110,610

Project execution period: From August 2020 to July 2023.

Project General Objective: The objective of this research is:

Objective 1. Detect candidate genetic markers associated with Triclabendazole Resistance (TCBZ-R) in Peru.

Objective 2. To validate the genetic markers associated with TCBZ-R using independent cohorts and to determine if the genetic basis of resistance is conserved among the populations of parasites that infect animals and humans.

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

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 24

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Alternative Therapeutic Approaches for The Control of Brain Inflammation

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Arroyo Hurtado, Gianfranco.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	70,357
Training	387
Travel expenses	809
Consulting	2,548
Equipment and/or supplies	14,417
Laboratory and patient care services	1,424
Other	10,171
Total Direct cost	100,113
Total Indirect cost- Overhead	8,055
Total cost	108,168

Project execution period: Desde marzo 2019 hasta febrero 2024.

Project General Objective: This 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 ethn (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 ethn or mtx versus the standard anti-inflammatory regimen using the corticosteroid dexamethasone (dex), in the control of pericystic inflammation using the same endpoints as in Studies 2a and 2b. We hope that our findings provide the evidence base for further investigations with ethn or mtx in controlled studies in patients with NCC.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 25

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Syphilis immunology and biology to improve clinical management and vac.

Research Project funded by federal funds or the United States of America, under subcontract with University of California, Los Angeles.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	42,309
Travel expenses	593
Consulting	10,363
Equipment and/or supplies	5,903
Laboratory and patient care services	21,013
Other	15,352
Total Direct cost	95,533
Total Indirect cost- Overhead	5,308
Total cost	100,841

Project execution period: From September 2018 to August 2022.

Project General Objective: The objective of this project is based on enrolling people with infection of syphilis and follow up with them to see how their lab values change and its clinic development after receiving treatment.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 26

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Study of immune modulation in the neurocysticercosis of taenia solium through the use of a new post oncosfera in vitro model

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Verastegui Pimentel, Manuela.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	57,817
Training	1,507
Travel expenses	1,653
Consulting	14,986
Equipment and/or supplies	4,717
Laboratory and patient care services	4,770
Other	6,203
Total Direct cost	91,653
Total Indirect cost- Overhead	6,055
Total cost	97,708

Project execution period: From May 2020 to April 2025.

Project General Objective: The objective of this research is to propose a new in vitro model for the development of embryos of Taenia solium, developed by the group, which makes it possible 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 immune response, with a focus on recently described TGF- β mimic molecules that have been shown to play a significant role in parasite immunomodulation.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 27

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Miranda Montero, Juan Jaime.
Dra. Pesantes Villa, Maria Amalia .

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	69,470
Travel expenses	23
Consulting	14,214
Equipment and/or supplies	1,631
Other	2,748
Total Direct costs	88,086
Total Indirect costs - Overhead	4,887
Total Costs	92,973

Project execution period: From September 2020 to June 2022.

Project General Objective: The treatment burden questionnaire (TBQ) will be used 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 the healthcare workload. Sociodemographic characteristics and other indicators of clinical outcomes will also be evaluated. By collecting this information, we hope to better understand which patient-reported barriers to managing multimorbidity exist in Peru and which subgroups of patients, particularly those in different healthcare sectors and geographic settings, are at higher risk of experiencing high BOT.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 28

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Spatiotemporal adaptation of anopheles darlingi in diverse ecological settings

Research Project funded by federal funds of the United States of America, under direct subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	44,013
Travel expenses	8,601
Consulting	400
Equipment and/or supplies	7,392
Laboratory and patient care services	201
Other	27,995
Total Direct costs	88,602
Total Indirect costs - Overhead	2,087
Total Costs	90,689

Project execution period: From April 2020 to March 2024.

Project General Objective: This project will address three little-studied facets that will provide key details of how this vector maintains its dominant role in the transmission dynamics of Amazonian malaria to: 1) delineate the importance of anthropogenic breeding sites leading to high productivity and dispersal of mosquitoes near human habitation; 2) examine the rapid adaptation in modified landscapes of the location (indoor / outdoor) and night time of biting behavior; and 3) show how the preferences / changes of this species of mosquito interact with asymptomatic people of Plasmodium vivax to maintain hypo endemic transmission.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 29

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Planning an MD-MSc combined degree program focused on translational research.

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Montes Delgado, Martín.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	64,314
Training	7,200
Equipment and/or supplies	(224)
Other	13,375
Total Direct costs	84,665
Total Indirect costs - Overhead	5,202
Total Costs	89,867

Project execution period: From July 2020 to March 2023.

Project General Objective: " Objective 1: Develop an intervention package to increase information, motivation and memory to complete isoniazid preventive therapy (IPT) in children < 5 years who have been prescribed IPT. Objective 2: Determine the feasibility and acceptability and measure the effectiveness of the intervention package in increasing adherence and completion of the TPI."

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 30

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Co-flu Peru: Natural history of SARS-COV-2 in comparison with the influenza virus: a multicenter study focused in the south hemisphere and the equatorial regions

Research Project funded by federal funds of the United States of America, under subcontract with ST Jude Childrens Research Hospital.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Garcia Funegra, Patricia Jannet

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	71,351
Travel expenses	6,057
Equipment and/or supplies	2,415
Laboratory and patient care services	3,195
Other	1,011
Total Direct costs	84,029
Total Indirect Indirect costs- Overhead	4,888
Total Costs	88,917

Project execution period: From Jun 2020 to December 2022.

Project General Objective: The objectives of this research are:

1. Document the clinical evolution and serious illness risk factors in people infected by SARS-CoV-2.
2. Define the virological characteristics of the SARS-CoV-2 infection.
3. Define the magnitude, quality and longevity of the immune responses to SARS-CoV-2.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 31

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Translational research development for endemic infectious diseases of Amazonia

Research Project funded by federal funds or the United States of America, under subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021.

Researcher: Dra. Gamboa Vilela, Dionicia

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	26,595
Training	8,301
Travel expenses	6,691
Equipment and/or supplies	10,310
Laboratory and patient care services	1,518
Other	31,373
Total Direct costs	84,788
Total Indirect costs- Overhead	3,826
Total Costs	88,614

Project execution period: From November 2018 to February 2022.

Project General Objective: The goal of this new project infectious disease research training program, with focus on training candidates from Iquitos (Universidad Nacional de la Amazonia Peruana). This research training program explicitly focuses on augmenting and sustaining research capacity in emerging and major endemic infectious diseases in Peru, particularly those found in the Peruvian Amazon. This training program will be particularly focused on infectious diseases that are associated with substantial morbidity and mortality in the Peruvian Amazon.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 32

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Liver cystic echinococcosis: pre-clinical assessment of a novel, single step percutaneous treatment procedure (intracystic albendazole sulfoxide injection)

Research Project funded by federal funds or the United States of America, under direct contract with la National Institute Of Health - NIH.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Santivañez, Saúl.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	22,494
Training	1,721
Travel expenses	98
Consulting	32,071
Equipment and/or supplies	5,017
Laboratory and patient care services	3,469
Other	12,908
Total Direct costs	77,778
Total Indirect costs- Overhead	3,246
Total Costs	81,024

Project execution period: From March 2016 to February 2022.

Project General Objective: The objective of this research is to evaluate a new approach of percutaneous treatment of a single step that consists in the intracystic injection of Albendazol Sulfoxido (ABZ - SF), the active metabolite of ABZ. This procedure requires fewer resources and time than PAIR, it also has the advantage 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 minimum intracystic concentration of ABZ-SF necessary to achieve treatment success will be determined.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 33

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Close the gap between the identification and the treatment of the cervical abnormalities in Lima

Research Project funded by federal funds of the United States of America, under subcontract with Duke University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Garcia Funegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	66,136
Training	1,600
Travel expenses	1,118
Equipment and/or supplies	495
Other	760
Total Direct costs	70,109
Total Indirect costs- Overhead	2,400
Total Costs	72,509

Project execution period: From October 2019 to March 2022.

Project General Objective: The objective is to evaluate the feasibility and effectiveness (including a cost analysis) of the combination of the pocket colposcope and the thermocoagulator. The study will be carried out in two years

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 34

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with Johns Hopkins University- JHU.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Hartinger, Stella.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	25,458
Training	30,581
Equipment and/or supplies	4,054
Total Direct costs	60,093
Total Indirect costs- Overhead	3,260
Total Costs	63,353

Project execution period: From April 2020 to May 2024.

Project General Objective: The objective of this research is to develop research and training capacity to address environmental risk factors (ambient air pollution, household air pollution, smoking, occupational exposures) that drive the epidemic of chronic respiratory diseases (asthma, COPD, PID) in Peru.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under direct subcontract with Yale University

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	40,747
Travel expenses	6,575
Equipment and/or supplies	2,752
Laboratory and patient care services	1,385
Other	4,601
Total Direct costs	56,060
Total Indirect costs- Overhead	2,428
Total Costs	58,488

Project execution period: From April 2019 to March 2024.

Project General Objective: The main objective is to compare the inflammatory response and responsiveness of the innate immune cells of clinically ill and asymptomatic malaria patients. 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.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Predictors of cardiomyopathy progression in a chagas disease cohort in Bolivia

Research Project funded by federal funds of the United States of America, under subcontract with Johns Hopkins University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Verastegui Pimentel, Manuela.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	27,856
Travel expenses	477
Equipment and/or supplies	18,493
Other	7,479
Total Direct costs	54,305
Total Indirect costs- Overhead	4,036
Total Costs	58,341

Project execution period: From February 2014 to June 2024.

Project General Objective: The treatment, the biomarkers that will be used for the early detection of Chagas disease to the heart can reflect early changes in cardiac structure and function, substances such as type B natriuretic peptide released in response to heart disease or a substance such as transforming growth factor, implicated in cardiac pathogenesis at the cellular level. The main outcome measure will be the progression of Chagasic cardiomyopathy over 4 years of follow-up. We set out 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 adults have T cruzi 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 >50% of cardiac patients are expected to have chagas disease to the heart.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 37

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Tuberculosis research project UPCH-OSU

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Ugarte Gil, Cesar.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	7,091
Training	1,095
Travel expenses	440
Consulting	166
Equipment and/or supplies	2,496
Laboratory and patient care services	31,203
Other	4,720
Total Direct costs	47,211
Total Indirect costs- Overhead	10,215
Total Costs	57,426

Project execution period: From January 2021 to March 2022.

Project General Objective: The objective of this research is to use the CDC's new data collection and systematization tools. This will allow critical data to be collected to assess and inform better epidemiological models of canine rabies transmission. In addition, the data collected will be used to refine the tools developed by the CDC and increase their usefulness in areas affected by rabies.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 38

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with Johns Hopkins University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. García Lescano, Héctor Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	12,513
Training	19,540
Travel expenses	2,779
Laboratory and patient care services	1,500
Other	7,871
Total Direct costs	44,203
Total Indirect costs– Overhead	2,111
Total Costs	46,314

Project execution period: From May 2015 to December 2024.

Project General Objective: The objective of this research is to develop and build a long-term sustainable training program in long-term in tropical infectious diseases in Bolivia.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 39

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Demonstration project to apply the principles and practices of the universal prevention curriculum (UPC) to schools in Peru 2 years

Research Project funded by federal funds or the United States of America, under direct contract with American Embassy Lima.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Salazar Silva, Fernando.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	17,143
Training	139
Consulting	9,327
Other	6,823
Total Direct costs	33,432
Total Indirect costs– Overhead	3,592
Total Costs	37,024

Project execution period: From February 2018 to June 2021.

Project General Objective: The objectives of this research are:

Objective 1: Develop the Training and Technical Assistance Series for UPC Coordinators and Implementers.

Objective 2: Evaluation of the effects of training at the UPC on substance use.

Objective 3: Research study on the implementation of evidence-based interventions. Institutionalize the UPC model.

Objective 4: Increase and expand the availability of evidence-based drug prevention programs.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 40

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Administrative supplement to syphilis immunology and biology to improv

Research Project funded by federal funds or the United States of America, under direct contract with University of California, Los Angeles - UCLA.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Cáceres Palacios, Carlos Fernando

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	16,241
Equipment and/or supplies	16,684
Other	71
Total Direct costs	32,996
Total Indirect costs- Overhead	3,127
Total Costs	36,123

Project execution period: From September 2018 to August 2021.

Project General Objective: The objective of this research is based on enrolling people with infection of syphilis and follow up with them to see how their lab values change and its clinic development after receiving treatment.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 41

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

A prospective study of acute flaccid myelitis (AFM) to define natural history, risk factors, and pat.

Research Project funded by federal funds of the United States of America, under subcontract with Universidad de Alabama.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Ochoa Woodell, Theresa Jean.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	25,768
Travel expenses	245
Equipment and/or supplies	116
Laboratory and patient care services	85
Other	7,552
Total Direct costs	33,766
Total Indirect costs- Overhead	1,892
Total Costs	35,658

Project execution period: From July 2019 to June 2023.

Project General Objective: The objective of this Research is to describe the clinical spectrum of acute flaccid myelitis (AFM) in pediatric patients and its possible association with infectious processes.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 42

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Novel nanoparticulate diagnostics for cerebral toxoplasmosis and chagas in HIV patients living in Latin America

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Zimic Peralta, Mirko

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	23,310
Other	8,853
Total Direct costs	32,163
Total Indirect costs- Overhead	1,891
Total Costs	34,054

Project execution period: From June 2018 to May 2023.

Project General Objective: The objective of this project is to help define the clinical spectrum of the neurological disease associated with HIV in Latin America.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 43

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Ictus: Interdisciplinary cerebrovascular diseases training program in South America.

Research Project funded by federal funds of the United States of America, under direct subcontract with University of Washington.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. García Lescano, Héctor Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	12,535
Training	3,580
Equipment and/or supplies	5,020
Other	8,880
Total Direct costs	30,015
Total Indirect costs- Overhead	1,962
Total Costs	31,977

Project execution period: From June 2016 to May 2024.

Project General Objective: The objective of this research is to reduce the mortality in cerebrovascular diseases in Peru.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 44

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

International cohort study of children born to women infected with zika virus during pregnancy.

Research Project funded by federal funds of the United States of America, under subcontract with WESTAT.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Ochoa Woodell, Theresa.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	9,408
Travel expenses	7
Laboratory and patient care services	913
Contract expenses	17,543
Other	15
Total Direct costs	27,886
Total Indirect costs- Overhead	1,034
Total Costs	28,920

Project execution period: From March 2019 to March 2022.

Project General Objective: The objective of this Project is to determine the long-term neurodevelopmental outcomes among children born to women with documented ZIKV infection during pregnancy.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 45

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

CCASANET 2020 - 2022

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gotuzzo Herencia, Jose Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	23,475
Equipment and/or supplies	2,222
Other	1,687
Total Direct costs	27,384
Total Indirect costs– Overhead	2
Total Costs	27,386

Project execution period: From February 2021 to January 2022.

Project General Objective: The goal of this project is to create and maintain a shared repository of HIV data for the Caribbean and Central and South America, and use the combined data to answer questions about the characteristics of the regional HIV epidemic.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with Johns Hopkins University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Hartinger Peña, Stella Maria

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	23,595
Travel expenses	-
Consulting	-
Equipment and/or supplies	-
Laboratory and patient care services	-
Other	-
Total Direct costs	23,595
Total Indirect costs- Overhead	2,259
Total Costs	25,854

Project execution period: From September 2016 to June 2021.

Project General Objective: The objective of this research is to carry out an LPG intervention in 3,200 households in four resource settings (India, Guatemala, Peru, and Rwanda) to deliver rigorous evidence regarding potential health benefits. In Peru, what we will do is recruit 800 pregnant, non-smoking, women aged 18-42 years (<20 weeks gestation confirmed by ultrasound), and randomly assign half to receive gas stoves and one month supply of gas during the study. period. Controls will receive the same stoves and gas supply at the end of the study. We anticipate that 25% of households will have a second, non-pregnant one. Adult female who is also a non-smoker. And she will also sign up to assess cardiopulmonary results. Our hypothesis is that the households with the biomass stoves showed better health outcomes compared to the control households.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 47

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

International technology transfer center - Peru

Research Project funded by federal funds of the United States of America, under subcontract with DAP.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Piazza Ferrand, Marina.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	16,262
Consulting	4,851
Equipment and/or supplies	1,801
Total Direct costs	22,914
Total Indirect costs – Overhead	2,647
Total Costs	25,561

Project execution period: From July 2021 to June 2022.

Project General Objective: Contract between the Medication Counseling Program and the Cayetano Heredia Peruvian University.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 48

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Combined albendazole plus praziquantel in subarachnoid NCC, DCC application

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Lescano Guevara, Andres Guillermo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	17,793
Equipment and/or supplies	97
Other	927
Total Direct costs	18,817
Total Indirect costs- Overhead	3,952
Total Costs	22,769

Project execution period: From September 2015 to July 2022.

Project General Objective: The main objective is to establish a Data Coordination Center (DCC) for the NIH / NINDS clinical trial application 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 months of follow-up each.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 49

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Chaka: strengthening research support structures in the Andean region

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Cabrera Matta, Ailin

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	14,054
Training	3,069
Travel expenses	33
Consulting	195
Equipment and/or supplies	106
Total Direct costs	17,457
Total Indirect costs- Overhead	4,134
Total Costs	21,591

Project execution period: From May 2016 to April 2022.

Project General Objective: The objective of this project is to develop a generation of administrators qualified in the management of research projects at the Universidad Peruana CAYETANO HEREDIA, and to catalyze a career in research administration, which will help develop an enabling environment and systems for health research.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 50

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

CCASANET: Caribbean, Central and South America Network.

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gotuzzo Herencia, Jose Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	13,419
Consulting	4,915
Other	47
Total Direct costs	18,381
Total Indirect costs– Overhead	1,548
Total Costs	19,929

Project execution period: From July 2016 to April 2022.

Project General Objective: The goal of this Project is to create and maintain a shared repository of HIV data from the Caribbean and Central and South America and use the combined data to answer questions about the characteristics of the regional HIV epidemic.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 51

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Natural infection of norovirus and sapovirus in a birth cohort in a peruvian periurban community

Research Project funded by federal funds of the United States of America, under subcontract with Johns Hopkins University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Zimic Peralta, Mirko.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	764
Travel expenses	3
Equipment and/or supplies	11,429
Other	3,172
Total Direct costs	15,368
Total Indirect costs- Overhead	1,652
Total Costs	17,020

Project execution period: From June 2015 to March 2021.

Project General Objective: The objective of this project is to characterize the epidemiology of Norovirus (NV) and Sapovirus (SV) in Peruvian children. As well as evaluate the people who acquired protective immunity to NV in a setting of frequent exposure.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 52

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Core B data management

Research Project funded by federal funds of the United States of America, under subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	12,018
Travel expenses	998
Equipment and/or supplies	473
Other	327
Total Direct costs	13,816
Total Indirect costs– Overhead	771
Total Costs	14,587

Project execution period: From April 2019 to March 2024.

Project General Objective: The objective of this Project is to support the design of study, preparation/validation of reporting forms of cases, data clearing and analysis.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract University of Washington.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Lescano, Hector Hugo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	10,209
Consulting	437
Total Direct costs	10,646
Total Indirect costs indirectos – Overhead	1,086
Total Costs	11,732

Project execution period: From August 2019 to May 2022.

Project General Objective: e objective of this research is based on population studies of cognitive impairment and dementia in rural communities by establishing a baseline of cognitive status.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 54

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Vaisberg Wolach, Abraham Jaime.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	4,849
Training	240
Consulting	4,174
Equipment and/or supplies	752
Other	488
Total Direct costs	10,503
Total Indirect costs- Overhead	1,111
Total Costs	11,614

Project execution period: From October 2020 to July 2023.

Project General Objective: The general objective of this proposal is to identify molecular pathways of neuronal function that are promising new intervention targets, by isolating at least two novel neuroactive compounds from plants used in Traditional Peruvian Medicine for the treatment of mental disorders.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 55

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Enabling infectious disease research capacity in the Peruvian amazon

Research Project funded by federal funds of the United States of America, under subcontract with Tulane University -NIH.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Lescano Guevara, Andrés Guillermo

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	10,863
Total Direct costs	10,863
Total Indirect costs- Overhead	504
Total Costs	11,367

Project execution period: From November 2018 to February 2023.

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

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 56

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 of the United States of America, under contract with CDC.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gotuzzo Herencia, Jose Eduardo.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	7,960
Consulting	3,000
Total Direct costs	10,960
Total Indirect costs– Overhead	35
Total Costs	10,995

Project execution period: From September 2021 to August 2025.

Project General Objective: The objective of this research is to determine the etiology and epidemiology of influenza-like illnesses and severe acute respiratory illnesses, with a special focus on COVID-19 in strategically selected regions of Peru and Ecuador, improve laboratory capacity for the diagnose disease, produce timely and accurate surveillance data, and develop a workforce that can continue these measures.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 57

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Fogarty global health fellows coordinating center (The UJMT global consortium: Building research capacity through mentored training)

Research Project funded by federal funds of the United States of America, under subcontract with University Of North Carolina at Chapel Hill.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Zimic Peralta, Mirko.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	399
Equipment and/or supplies	713
Laboratory and patient care services	7,500
Other	1,137
Total Direct costs	9,749
Total Indirect costs- Overhead	-
Total Costs	9,749

Project execution period: From July 2017 to June 2021.

Project General Objective: The consortium of members from University North Carolina at Chapel Hill, Johns Hopkins University, Morehouse School of Medicine, and Tulane University have supported training with mentors in 28 low- and middle-income family affiliated countries in commitment to problem solving. global health. more than half of our postdoctoral fellows have taken academic positions after completing the program; many have successfully competed for research funding, including from NIH, to become independently funded Researchers.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 58

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Prevalence of vertebral fracture and bone low density in Peruvian women with VIH

Research Project funded by federal funds of the United States of America, under subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Garcia Funegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Laboratory and patient care services	8,217
Other	302
Total Direct costs	8,519
Total Indirect costs- Overhead	1
Total Costs	8,520

Project execution period: From September 2019 to June 2021.

Project General Objective: The objective of this research is to enroll a cohort of HIV-positive women and HIV-negative women with the community in Lima, Peru, and compare the prevalence of vertebral fracture and bone mineral low density, identifying similarities and differences in regard to risk factors associated in both groups.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 59

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Orphan GPCR ligands from Ethnobotanical Sources as Novel Drugs for Mental Disorders

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Vaisberg Wolach, Abraham Jaime.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	34
Training	390
Consulting	7,283
Other	72
Total Direct costs	7,779
Total Indirect costs- Overhead	-
Total Costs	7,779

Project execution period: From July 2018 to May 2022.

Project General Objective: The objective of this research is to identify the molecular pathways of neuronal function that are promising new intervention targets, by isolating at least two novel neuroactive compounds from plants used in Traditional Peruvian Medicine for the treatment of mental disorders.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 60

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

2/2 - regional geohealth hub centered in Peru - US

Research Project funded by federal funds of the United States of America, under subcontract with University of Emory.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gonzales Rengifo, Gustavo
Francisco.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	388
Training	13,886
Other	(6,640)
Total Direct costs	7,634
Total Indirect costs- Overhead	-
Total Costs	7,634

Project execution period: From September 2015 to March 2022.

Project General Objective: The objective of this Project is to support the training of doctoral students, as well as the development of postgraduate programs within Peru. We will provide scholarships for Peruvian Researchers to carry out their doctoral studies at Johns Hopkins University (Baltimore, USA) and the University of Chile. Once the required coursework is completed, participants will identify a thesis on an environmental health topic of interest and write a proposal for its research. The thesis must be based on original research based on Peru, worthy of being published.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 61

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Knowledge, practices, and attitudes towards children oral health

Research Project funded by federal funds of the United States of America, under subcontract with Universidad De California.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Lescano, Andres

	Project Execution (*)
	US\$
Direct costs	
Training	6,600
Total Direct costs	6,600
Total Indirect costs– Overhead	-
Total Costs	6,600

Project execution period: From July 2021 to June 2022.

Project General Objective: The objective of this research is to identify the possible barriers and facilitators to include children's oral health in the routine pediatric control carried out by nurses within the framework of the National Program for the Control and Growth of Children Under 5 Years of Age (CRED), especially during the first three years of life.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 62

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

HIV risk and psychosocial health among transgender women in Peru

Research Project funded by federal funds of the United States of America, under subcontract with The Children's Hospital Corporation D/B/A Boston CH.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Silva Santisteban, Portella Alfonso.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	5,245
Total Direct costs	5,245
Total Indirect costs- Overhead	1,231
Total Costs	6,476

Project execution period: From August 2019 to December 2022.

Project General Objective: The objective of this research in this phase consist in formative/qualitative research to explore the issues related to the psychosocial vulnerability of young trans women.

* survey and sample collections that are carried out 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 consider the results of the first phase.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Colonization of the intestine with pathogens with antimicrobial resistance

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Pajuelo Travezaño, Mónica

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	2,017
Training	230
Equipment and/or supplies	205
Laboratory and patient care services	733
Other	2,773
Total Direct costs	5,958
Total Indirect costs- Overhead	190
Total Costs	6,148

Project execution period: From May 2020 to April 2022.

Project General Objective: To characterize the epidemiology of extended-spectrum b-lactamase-producing Enterobacteriaceae (ESBL-E) and Campylobacter (CIP-C) resistant to ciprofloxacin in Peruvian children. To quantify the prevalence of intestinal colonization with ESBL-E and CIP-C in healthy children from different parts of Peru. To assess whether the prevalence of ESBL-E and CIP-C differ in children by age (0-3 months, 3-6 months, 6-12 months, 12-24 months) to inform future epidemiological studies seeking to identify risk factors for exhibition.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 64

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving participation in vector controls campaigns through behavioral economics

Research Project funded by federal funds of the United States of America, under subcontract with University of Pennsylvania.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dra. Paz Soldan, Valerie.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	3,029
Travel expenses	1,001
Equipment and/or supplies	15
Other	1,886
Total Direct costs	5,931
Total Indirect costs- Overhead	-
Total Costs	5,931

Project execution period: From June 2014 to May 2021.

Project General Objective: The objective of the Project is to carry out randomized fieldwork with three interventions to increase the participation of residents in vector control campaigns carried out in the city of Arequipa in conjunction with MINSA, through calls, messages text and reminders. Likewise, training for community leaders so that they promote and motivate participation in campaigns.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 65

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Evaluation of urgencies, emergencies and essential neurosurgical in Peru

Research Project funded by federal funds of the United States of America, under contract with University of Harvard.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Garcia Funegra, Patricia Jannet.

	Project Execution (*)
	US\$
Direct costs	
Training	400
Travel expenses	918
Equipment and/or supplies	435
Other	1,047
Total Direct costs	2,800
Total Indirect costs- Overhead	20
Total Costs	2,820

Project execution period: From July 2019 to June 2022.

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

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 66

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Otero Vegas, Larissa.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	1,924
Total Direct costs	1,924
Total Indirect costs- Overhead	20
Total Costs	1,944

Project execution period: From January 2018 to January 2023.

Project General Objective: The objective of this project is to plan the development of a pragmatic clinical trial to evaluate the optimal duration of the treatment of tuberculosis in co-infected patients with HIV as well as a reminder pills box, to increase the treatment adhesion.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 67

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Effectivity of the intervention with text message in the collection of medicine and retention in the care of young adults living with HIV in a hospital of Lima

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gonzalez Lagos, Elsa.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	1,329
Total Direct costs	1,329
Total Indirect costs- Overhead	-
Total Costs	1,329

Project execution period: From August 2019 to August 2021.

Project General Objective: The objective of this Project is interventions with text messages (SMS) to improve the retention in care of patients with HIV, which have presented heterogeneous results, probably due to the different characteristics when designing and implementing them. Using data routinely collected in the largest HIV program in Lima, we retrospectively evaluated the efficacy of a pilot one-way platform SMS intervention in a one-arm cohort. This sought to improve adherence to medical appointments and collection of antiretroviral therapy (TARV).

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Placental colonization by treponema pallidum, congenital syphilis & novel vaccine

Research Project funded by federal funds of the United States of America, under subcontract with Rutgers University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Carcamo Cavagnaro, Cesar Paul.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	182
Equipment and/or supplies	845
Total Direct costs	1,027
Total Indirect costs- Overhead	
Total Costs	1,027

Project execution period: From August 2015 to 01 January 2021.

Project General Objective: The objective is to determine the impact of the adaptive immune response by antibodies against syphilis both in colonization of the placenta as well as in the clinical presentations of congenital syphilis in pregnant women.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

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 of the United States of America, under subcontract with University of Southern California.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Caceres Palacios, Carlos Fernando.

	Project Execution (*)
	US\$
Direct costs	
Other	876
Total Direct costs	876
Total Indirect costs– Overhead	86
Total Costs	962

Project execution period: From July 2021 to June 2026.

Project General Objective: The main objective is to evaluate the efficacy of cefixime in the treatment of early syphilis in comparison with penicillin G benzathine and to determine the predictors of treatment failure among the participants.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 70

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 funded by federal funds of the United States of America, under subcontract with University of California, San Diego.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Gamboa Vilela, Dionicia.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	34
Other	832
Total Direct costs	866
Total Indirect costs – Overhead	-
Total Costs	866

Project execution period: From July 2017 to March 2024.

Project General Objective: The objective of this research is to identify risk factors for residual malaria infection and disease at both the individual and household level, will supply parasite samples for detailed population-level molecular analyses and epidemiological data to develop new mathematical models of malaria transmission.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 71

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Iquitos insectary and transmission biology

Research Project funded by federal funds of the United States of America, under subcontract with Yale University.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Vinetz, Joseph

	Project Execution (*)
	US\$
Direct costs	
Equipment and/or supplies	773
Total Direct costs	773
Total Indirect costs – Overhead	-
Total Costs	773

Project execution period: From September 2018 to August 2019.

Project General Objective: The studies imply the maintenance of a laboratory insectarium in Iquitos, Peru, and experimental infections by mosquitos with Plasmodium vivax. The funds are used for the maintenance of the laboratory, give support to the research staff in the laboratory in Iquitos, purchase of relevant supplies, identify sources of infections for experimental infections and lab analysis of experimental data.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

UNIVERSIDAD PERUANA CAYETANO HEREDIA**STATEMENT OF EXPENDITURE****Characterization of infectious agent that causes leishmaniasis tegumentaria**

Research Project funded by federal funds of the United States of America, under contract with American Embassy - Namru 6.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Llanos Cuentas, Elmer Alejandro.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	386
Total Direct costs	386
Total Indirect costs- Overhead	-
Total Costs	386

Project execution period: From November 2019 to May 2020.

Project General Objective: The objective of this research aims to characterize the different species of leishmaniasis tegumentaria of the patients that go to the Unit of Leishmaniasis and Malaria (ULM) of the Institute of Tropical Medicine Alexander Von Humboldt.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 73

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Use of bisphosphonates to reduce the calcification process in animal models of cysticercosis

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

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Bustos Palomino, Javier Arturo.

	Project Execution (*)
	US\$
Direct costs	
Other	10
Total Direct costs	10
Total Indirect costs- Overhead	250
Total Costs	260

Project execution period: From March 2015 to February 2021.

Project General Objective: The objective of this research is to evaluate whether Bisphosphonates decrease the likelihood and degree of residual calcification from the degeneration of the muscular and cerebral cyst of brain degeneration and cysts in animal models. Standardize experimental intramuscular infection in rodents (rats, guinea pigs, and rabbits) to allow a reproducible practical model for further study. To evaluate the cyst calcification process after antiparasitic treatment in the 2 best models obtained in the previous phase, as well as a previously standardized model of intracranial infection in rats. Once the calcification process has been defined, the efficacy of three different bisphosphonates (etidronate, alendronate, and ibandronate) to reduce calcification in the brain and muscle of rodents will be evaluated. In the final study, the findings in naturally infected pigs will be replicated in order to obtain a more natural model that can be extrapolated to human NCC.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 74

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

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

Research Project funded by federal funds of the United States of America, under subcontract with The Florida International University Board Of Trus.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Alfonso Silva, Santisteban Portella.

	Project Execution (*)
	US\$
Direct costs	
Other	134
Total Direct costs	134
Total Indirect costs- Overhead	-
Total Costs	134

Project execution period: From July 2021 to June 2024

Project General Objective: To test an intervention for gay male couples to determine if it helps them prevent HIV/STIs. Intervention is a website with 5 modules designed for gay couples.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

Project 75

UNIVERSIDAD PERUANA CAYETANO HEREDIA

STATEMENT OF EXPENDITURE

Improving national knowledge and awareness of fungal infections in Peru (INKA).

Research Project funded by federal funds or the United States of America, under direct contract with CDC.

For the period from 1 January 2021 to 31 December 2021

Researcher: Dr. Banda Flores, Claudia Lizette.

	Project Execution (*)
	US\$
Direct costs	
Employees' benefits	-
Training	-
Travel expenses	-
Consulting	-
Equipment and/or supplies	-
Laboratory and patient care services	-
Other	-
Total Direct costs	-
Total Indirect costs- Overhead	35
Total Costs	35

Project execution period: From September 2021 to September 2026.

Project General Objective: The objective of this research in the near future is to improve fungal diagnostic capabilities in a network of reference laboratories in the country and expand these efforts to the Andean region in South America.

(*) It includes the duration of our review, from 1 January 2021 to 31 December 2021.

IV. BACKGROUND AND SCOPE OF THE 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 2021 to 31 December 2021. 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.

Scope of the audit

The scope of our audit work includes the review of all the expenditures transactions from 1 January 2021 to 31 December 2021. As part of a preliminary review and to determine an appropriate control environment, we review the following documents:

- Agreements subscribed between Universidad Peruana Cayetano Heredia and the National Institute of Health – NIH.
- Subcontracts subscribed between 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 of 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 (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 Audit 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 1 January 2021 to 31 December 2021. 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 requirement 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.

The 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 reviewed and evaluated the internal control of Universidad Peruana Cayetano Heredia, in regard to the Research Projects, in order to obtain enough understanding of the design of policies and control procedures, and if such policies and procedures have been applied.

The most important audit procedures applied for the evaluation of internal control is detailed as follows:

- a. Obtain 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 such effects, we evaluated among other things the control systems to:
- i. Ensure that the charges to the program are appropriate and are duly documented.
 - ii. Acquisition of goods and services.
 - iii. The administration of the staff functions such as time control, salaries and benefits.
 - iv. The administration and disposition of goods (such as equipment and supplies, among others) acquired for the Research Projects; and
 - v. Ensure the compliance with the terms of the subcontracts, laws and regulations applicable that have a collective and material impact in the STATEMENT OF EXPENDITURE.

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. On a selective basis, we identified the terms of the contracts, subcontracts, the laws and regulations applicable, and we determine which if not observed, may have a direct and material effect on the STATEMENT OF EXPENDITURE. 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 have evaluated the inherent and control risk regarding the occurrence of a material non-compliance for each compliance requirement.
 - iii. We determine the nature, opportunity, and duration of the audit procedures to perform tests that determine if there are errors, irregularities and illegal acts, that provide a reasonable safety of detecting intentional or non-intentional non-compliance cases in regard to the terms of applicable subcontracts, regulations and laws that may have a material effect in the STATEMENT OF EXPENDITURE.
- 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 samples 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 sample of deliveries to be reported, 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 the 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 determined a non-statistical selection of documents as sample of contractual expenses, where we have:
 - i. Confirmed that the invoice is accompanied by the details of the expenses incurred and that these were approved by the Administration General Department – DGA to be submitted to the funding entity.
 - 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 costscnters and used for the purposes established according to the University board of directors.
- i. We determined a non-statistical selection of documents as sample of assets 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 funding of the projects, have been properly coded and inventoried by the University and registered in the accounting.
- j. We determined the opened and closed projects in 2020, 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 costscnter.

VIII. OPPORTUNITIES OF IMPROVEMENT AND RECOMMENDATIONS

8.1 CONSOLIDATED REPORT OF THE EXPENDITURE STATEMENT OF THE PROJECTS

During our review process, we have evidenced the need to automate the consolidated report of expenditures, which is being prepared manually.

Although the University has been using diverse technology tools that help in the management and administration of the projects, to date, the consolidated report of expenditure is prepared manually, which increases possibility of reporting inaccurate data and generates greater use of resources from the University.

Recommendation:

We recommend automating the consolidated report expenditure to the financial information system used by the University and guarantee this way the integrity of the data and the security of the information in the processing of these.

Comments from Universidad Peruana Cayetano Heredia:

The University is currently evaluating alternatives to migrate to a comprehensive information platform that allows to automate processes, reduce resources and access to real-time information.

The University is in the final stage of choosing the provider for the Oracle Cloud ERP solution already defined in the Project Management or Grants Management module.

IX. FOLLOW-UP TO RECOMMENDATIONS FROM PREVIOUS YEARS

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

Recommendations	Year	Current Situation
1. Cost of staff in the Research Project	2016	In process (*)
2. There is no uniformity in the closing procedure of cost centers when Universidad Peruana Cayetano Heredia is subcontracted.	2019	Implemented
4. Access to the PProyectos platform.	2020	Implemented
5. Allocation of components in the PProyectos platform.	2020	Implemented

(*) As of today, this process has not been implemented yet.