

Supplement Table 1: Statistical method annotated using OBCS

Title	PMID	statistical method	statistical method	statistical method	statistical method	statistical method	statistical method	statistical method
CD4/CD8 Ratio and KT Ratio Predict Yellow Fever Vaccine Immunogenicity in HIV-Infected Patients.	27941965	mann-whitney U test	Fisher's exact test					
The 17D-204 Vaccine Strain-Induced Protection against Virulent Yellow Fever Virus Is Mediated by Humoral Immunity and CD4+ but not CD8+ T Cells	27463517	Student's t-test						
Characterization of Yellow Fever Virus Infection of Human and Non-human Primate Antigen Presenting Cells and Their Interaction with CD4+ T Cells	27191161	ANOVA	non-parametric test					
Sequential Infection with Common Pathogens Promotes Human-like Immune Gene Expression and Altered Vaccine Response.	27107939	one-way ANOVA						
Vaccination with Replication Deficient Adenovectors Encoding YF-17D Antigens Induces Long-Lasting Protection from Severe Yellow Fever Virus Infection in Mice.	26886513	mann-whitney U test	log-rank test					
Vaccine and Wild-Type Strains of Yellow Fever Virus Engage Distinct Entry Mechanisms and Differentially Stimulate Antiviral Immune Responses.	26861019	one-way ANOVA						
Siglec-1-positive plasmacytoid dendritic cells (pDCs) in human peripheral blood: A semi-mature and myeloid-like subset imbalanced during protective and autoimmune responses.	26674280	one-way ANOVA	mann-whitney U test					
Immunogenicity of Yellow Fever Vaccine Coadministered With MenAfriVac in Healthy Infants in Ghana and Mali.	26553692	ANOVA						
A randomised double-blind clinical trial of two yellow fever vaccines prepared with substrains 17DD and 17D-213/77 in children nine-23 months old.	26517656	Student's t-test	chi square test					
Low Thymic Activity and Dendritic Cell Numbers Are Associated with the Immune Response to Primary Viral Infection in Elderly Humans.	26459351	mann-whitney U test						

Analysis of a Reverse Transcription Loop-mediated Isothermal Amplification (RT-LAMP) for yellow fever diagnostic.	26459206	Receiver Operating Characteristic curve analysis (ROC curve analysis)						
CD4/CD8 Ratio Predicts Yellow Fever Vaccine-Induced Antibody Titers in Virologically Suppressed HIV-Infected Patients	26361176	Student's t-test	Wilcoxon signed-rank test	Pearson's chi square test	Fisher's exact test			
The Human NK Cell Response to Yellow Fever Virus 17D Is Primarily Governed by NK Cell Differentiation Independently of NK Cell Education.	26283480	paired t-test	repeated measure ANOVA	Wilcoxon signed-rank test	Holm-Bonferroni family-wise error rate correction method			
The role of pre-existing cross-reactive antibodies in determining the efficacy of vaccination in humans: study protocol for a randomized controlled trial.	25872531	Holm-Bonferroni family-wise error rate correction method						
Long-lasting stem cell-like memory CD8+ T cells with a naïve-like profile upon yellow fever vaccination.	25855494	two-way ANOVA						
Observational study on immune response to yellow fever and measles vaccines in 9 to 15-month old children. Is it necessary to wait 4 weeks between two live attenuated vaccines?	25843268	Student's t-test	mann-whitney U test					
Abacavir-reactive memory T cells are present in drug naïve individuals.	25674793	Wilcoxon signed-rank test	Fisher's exact test					
Mathematical modeling provides kinetic details of the human immune response to vaccination.	25621280	F test						
Pathophysiologic and transcriptomic analyses of viscerotropic yellow fever in a rhesus macaque model.	25412185	Fisher's exact test	Benjamini and Hochberg false discovery rate correction method					
Subdoses of 17DD yellow fever vaccine elicit equivalent virological/immunological kinetics timeline.	25022840	mann-whitney U test						
Immune activation alters cellular and humoral responses to yellow fever 17D vaccine.	24911151	mann-whitney U test	chi square test	correlation statistical analysis				

Specificities of human CD4+ T cell responses to an inactivated flavivirus vaccine and infection: correlation with structure and epitope prediction.	24789782	Wilcoxon signed-rank test	chi square test	Fisher's exact test	non-parametric test			
The 17D-204 Vaccine Strain-Induced Protection against Virulent Yellow Fever Virus Is Mediated by Humoral Immunity and CD4+ but not CD8+ T Cells. 27463517 Student's t-test CD44hi and CD62Llo were used by flow cytometry	24593023	Student's t-test						
Humanized monoclonal antibody 2C9-clgG has enhanced efficacy for yellow fever prophylaxis and therapy in an immunocompetent animal model.	24393669	one-way ANOVA	Holm-Bonferroni family-wise error rate correction method	log-rank test				
Early IFN-gamma production after YF 17D vaccine virus immunization in mice and its association with adaptive immune responses.	24324734	two-way ANOVA	mann-whitney U test	Holm-Bonferroni family-wise error rate correction method	pearson correlation coefficient calculation			
Vaccine activation of the nutrient sensor GCN2 in dendritic cells enhances antigen presentation.	24310610	Student's t-test						
Internal ribosome entry site-based attenuation of a flavivirus candidate vaccine and evaluation of the effect of beta interferon coexpression on vaccine properties.	24307589	log-rank test						
Dissection of antibody specificities induced by yellow fever vaccination.	23818856	two tailed test						
Recombinant yellow fever viruses elicit CD8+ T cell responses and protective immunity against Trypanosoma cruzi.	23527169	one-way ANOVA						
T-cell memory responses elicited by yellow fever vaccine are targeted to overlapping epitopes containing multiple HLA-I and -II binding motifs.	23383350	two tailed test	pearson correlation coefficient calculation					
17DD yellow fever vaccine: a double blind, randomized clinical trial of immunogenicity and safety on a dose-response study.	23364472	chi square test	Fisher's exact test					
Temporal dynamics of the primary human T cell response to yellow fevivirus 17D as it matures from an effector- to a memory-type response.	23338234	repeated measure ANOVA						

Immunogenicity of seven new recombinant yellow fever viruses 17D expressing fragments of SIVmac239 Gag, Nef, and Vif in Indian rhesus macaques.	23336000	Student's t-test	mann-whitney U test					
Immunogenicity and safety of yellow fever vaccine among 115 HIV-infected patients after a preventive immunisation campaign in Mali.	22627101	chi square test	Fisher's exact test					
Plasma HIV-RNA is the key determinant of long-term antibody persistence after Yellow fever immunization in a cohort of 364 HIV-infected patients.	22267015	mann-whitney U test	chi square test					
Elderly subjects have a delayed antibody response and prolonged viraemia following yellow fever vaccination: a prospective controlled cohort study.	22163273	mann-whitney U test	chi square test					
Pre-clinical efficacy and safety of experimental vaccines based on non-replicating vaccinia vectors against yellow fever. 21931732 ANOVA, Tukey-Kramer YFV plaque reduction neutralization assay (YFV-PRNT)	22156842	ANOVA						
Human leukocyte antigen (HLA) class I restricted epitope discovery in yellow fever and dengue viruses: importance of HLA binding strength.	22039500	mann-whitney U test	Fisher's exact test					
Priming effect of dengue and yellow fever vaccination on the immunogenicity, infectivity, and safety of a tetravalent dengue vaccine in humans.	21976579	one-way ANOVA						
Dengue-2 and yellow fever 17DD viruses infect human dendritic cells, resulting in an induction of activation markers, cytokines and chemokines and secretion of different TNF- α and IFN- α profiles.	21894381	one-way ANOVA						
Cytokine signatures of innate and adaptive immunity in 17DD yellow fever vaccinated children and its association with the level of neutralizing antibody.	21849284	ANOVA	Student's t-test	mann-whitney U test				
Immune correlates of protection against yellow fever determined by passive immunization and challenge in the hamster model.	21718741	one-way ANOVA	Holm-Bonferroni family-wise error rate correction method					

Infection of hepatocytes with 17-D vaccine-strain yellow fever virus induces a strong pro-inflammatory host response.	21697351	Student's t-test	mann-whitney U test					
Mutual interference on the immune response to yellow fever vaccine and a combined vaccine against measles, mumps and rubella.	21640779	Student's t-test	Pearson's chi square test					
An inactivated cell-culture vaccine against yellow fever.	21470010	ANOVA	Fisher's exact test	Holm-Bonferroni family-wise error rate correction method	log-rank test			
Biological and immunological characterization of recombinant Yellow Fever 17D viruses expressing a Trypanosoma cruzi Amastigote Surface Protein-2 CD8+ T cell epitope at two distinct regions of the genome.	21418577	ANOVA	mann-whitney U test					
Differential cytokine responses from primary human Kupffer cells following infection with wild-type or vaccine strain yellow fever virus.	21277609	paired t-test						
Development of antigen-specific memory CD8+ T cells following live-attenuated chimeric West Nile virus vaccination.	21216868	mann-whitney U test						
Sequential immunization with heterologous chimeric flavivirus induces broad-spectrum cross-reactive CD8+ T-cell responses	21199140	mann-whitney U test						
Characterization of main cytokine sources from the innate and adaptive immune responses following primary 17DD yellow fever vaccination in adults.	20732465	Wilcoxon signed-rank test						
Evaluation of yellow fever virus 17D strain as a new vector for HIV-1 vaccine development.	20600494	mann-whitney U test						
A mouse model for studying viscerotropic disease caused by yellow fever virus infection.	19816561	log-rank test	Student's t-test					
TLR expression and NK cell activation after human yellow fever vaccination.	19647065	one-way ANOVA	Friedman test					
Men with low vitamin A stores respond adequately to primary yellow fever and secondary tetanus toxoid vaccination.	18936231	Student's t-test	ANOVA					
Cell-mediated immunity induced by chimeric tetravalent dengue vaccine in naive or flavivirus-primed subjects.	18762226	Wilcoxon signed-rank test						

Toll-like receptor-mediated induction of type I interferon in plasmacytoid dendritic cells requires the rapamycin-sensitive PI(3)K-mTOR-p70S6K pathway.	18758466	Student's t-test						
Intradermally administered yellow fever vaccine at reduced dose induces a protective immune response: a randomized controlled non-inferiority trial.	18431480	Student's t-test	paired t-test	chi square test	Wilcoxon signed-rank test			
Detection of Th1/Th2 cytokine signatures in yellow fever 17DD first-time vaccinees through ELISpot assay.	18378159	Fisher's exact test						
Innate immunity phenotypic features point toward simultaneous raise of activation and modulation events following 17DD live attenuated yellow fever first-time vaccination.	18243433	paired t-test						
Construction and characterization of recombinant flaviviruses bearing insertions between E and NS1 genes.	17971212	Student's t-test						
Multiple vaccine and pyridostigmine bromide interactions in the common marmoset Callithrix jacchus: immunological and endocrinological effects.	17715228	ANOVA						
Immunogenicity of WHO-17D and Brazilian 17DD yellow fever vaccines: a randomized trial.	17316925	intent-to-treat analysis						
Activation/modulation of adaptive immunity emerges simultaneously after 17DD yellow fever first-time vaccination: is this the key to prevent severe adverse reactions following immunization?	17309541	paired t-test	pearson correlation coefficient calculation					
Phenotypic and molecular analyses of yellow fever 17DD vaccine viruses associated with serious adverse events in Brazil.	17255244	ANOVA	Student's t-test					
The quality of travel clinics in the Netherlands.	17107429	chi square test						
Neutralizing antibody response to booster vaccination with the 17d yellow fever vaccine.	16494976	chi square test	Fisher's exact test					
Yellow fever virus strains Asibi and 17D-204 infect human umbilical cord endothelial cells and induce novel changes in gene expression.	16150475	Student's t-test						

West Nile virus infection and serologic response among persons previously vaccinated against yellow fever and Japanese encephalitis viruses.	16011430	Fisher's exact test						
Response of Volta Children to Jet Inoculation of Combined Live Measles, Smallpox and Yellow Fever Vaccines"	15772332	paired t-test						
Interindividual variation in the response by fibrinogen, C-reactive protein and interleukin-6 to yellow fever vaccination.	15205588	Wilcoxon signed-rank test	mann-whitney U test	chi square test				
Neurovirulence of yellow fever 17DD vaccine virus to rhesus monkeys.	14599790	Student's t-test	Kolmogorov-Smirnov test					
Chimeric live, attenuated vaccine against Japanese encephalitis (ChimeriVax-JE): phase 2 clinical trials for safety and immunogenicity, effect of vaccine dose and schedule, and memory response to challenge with inactivated Japanese encephalitis antigen.	14551893	ANOVA	Student's t-test	Fisher's exact test				
Yellow fever vaccination as a model to study the response to stimulation of the inflammation system.	12616977	Wilcoxon signed-rank test	Friedman test					
Chlamydia antibody response in healthy volunteers immunized with nonchlamydial antigens: a randomized, double-blind, placebo-controlled study.	12594639	Student's t-test	log-rank test					
Viremia and immunogenicity in nonhuman primates of a tetravalent yellow fever-dengue chimeric vaccine: genetic reconstructions, dose adjustment, and antibody responses against wild-type dengue virus isolates.	12093182	ANOVA	Student's t-test					
Antibody response to 17D yellow fever vaccine in Ghanaian infants.	11731813	Student's t-test	chi square test					
Influence of the IL-1Ra gene polymorphism on in vivo synthesis of IL-1Ra and IL-1beta after live yellow fever vaccination.	11531955	ANOVA	F test					
Tolerance and immunogenicity of the simultaneous administration of virosome hepatitis A and yellow fever vaccines.	10575170	Fisher's exact test	Student's t-test					
Recent immunization against measles does not interfere with the sero-response to yellow fever vaccine.	10195613	ANOVA	chi square test					

Interference assessment of yellow fever vaccine with the immune response to a single-dose inactivated hepatitis A vaccine (1440 EL.U.). A controlled study in adults.	8879097	Fisher's exact test						
The effect of chloroquine prophylaxis on yellow fever vaccine antibody response: comparison of plaque reduction neutralization test and enzyme-linked immunosorbent assay.	1996743	two tailed test	chi square test					
Association of IDDM and attenuated response of 2',5'-oligoadenylate synthetase to yellow fever vaccine.	2573556	mann-whitney U test						
The association of enhancing antibodies with seroconversion in humans receiving a dengue-2 live-virus vaccine.	4067313	one tailed test						
Limitations of the complement-fixation test for distinguishing naturally acquired from vaccine-induced yellow fever infection in flavivirus-hyperendemic areas.	7406113	chi square test						
Yellow fever vaccine induces integrated multilineage and polyfunctional immune responses	19047440	quantile normalization	background correction data transformation	LIMMA data analysis	log2 transformation	independent component analysis (ICA)	Gene Set Enrichment Analysis	
Distinct gene expression profiles in peripheral blood mononuclear cells from patients infected with vaccinia virus, yellow fever 17D virus, or upper respiratory infections.	17651872	lowess transformation	log2 transformation	Benjamini and Hochberg false discovery rate correction method	statistical hypothesis test	Gene Set Enrichment Analysis		
Systems biology approach predicts immunogenicity of the yellow fever vaccine in humans	19029902	robust multi-array average normalization	log2 transformation	Benjamini and Hochberg false discovery rate correction method	one-way ANOVA	Principal Component Analysis (PCA)	Student's t-test	network analysis
Genome-wide RNA profiling of long-lasting stem cell-like memory CD8 T cells induced by Yellow Fever vaccination in humans	26484272	quantile normalization	background correction data transformation	LIMMA data analysis	Principal Component Analysis (PCA)			
Lot-to-lot consistency of a tetravalent dengue vaccine in healthy adults in Australia: A randomised study	26279339	paired t-test						
Modelling the immunological response to a tetravalent dengue vaccine from multiple phase-2 trials in Latin America and South East Asia.	26051515	multiple linear regression analysis						

Initial viral load determines the magnitude of the human CD8 T cell response to yellow fever vaccination.	25713354	least square regression analysis						
Immune response to the mumps component of the MMR vaccine in the routine of immunisation services in the Brazilian National Immunisation Program	24821058	multiple linear regression analysis						
Cell-specific type I IFN signatures in autoimmunity and viral infection: what makes the difference?	24391825	chi square test						
Merck Ad5/HIV induces broad innate immune activation that predicts CD8+ T-cell responses but is attenuated by preexisting Ad5 immunity	23151505	permutation	robust multi-array average normalization	log2 transformation	paired t-test	false discovery rate correction method (FDR)	network analysis	
Synthetic double-stranded RNA induces innate immune responses similar to a live viral vaccine in humans.	22065672	quantile normalization	LIMMA data analysis	log2 transformation	Benjamini and Hochberg false discovery rate correction method			