

Research Toward a Cure January 12, 2018

Table 1. Current Clinical Trials

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
ADOPTIVE IMMUNOTHERAPY				
Reconstitution of HIV-specific immunity against HIV	NCT02563509	Guangzhou 8th People's Hospital	Phase I/II	December 2017
HXTC : HIV 1 antigen expanded specific T cell therapy	NCT02208167 (closed to enrollment)	University of North Carolina, Chapel Hill	Phase I	December 2017
ANTIBODIES				
vedolizumab (anti- $\alpha_4\beta_7$ integrin antibody)	NCT03147859	Ottawa Hospital Research Institute	Phase II	December 2018
VRC01 in acute HIV infection	NCT03036709	Nittaya Phanuphak, MD, PhD	Phase II	June 2018
3BNC117 (broadly neutralizing monoclonal antibody)	NCT02446847 (closed to enrollment)	Rockefeller University	Phase I/II	March 2018
3BNC117	NCT02588586 (closed to enrollment)	Rockefeller University	Phase I/II	March 2018
VRC01 in infants	NCT03208231 (not yet open for enrollment)	NIAID	Phase I/II	January 2020
10-1074 (broadly neutralizing monoclonal antibody)	NCT02511990 (closed to enrollment)	Rockefeller University	Phase I	December 2017
3BNC117-LS (long-acting broadly neutralizing monoclonal antibody)	NCT03254277	Rockefeller University	Phase I	October 2019
3BNC117 + 10-1074	NCT02825797	Rockefeller University	Phase I	June 2018
AAV8-VRC07 (broadly neutralizing monoclonal antibody delivered by AAV vector)	NCT03374202	NIAID	Phase I	March 2019
PGDM1400 +/- PGT121	NCT03205917	International AIDS Vaccine Initiative	Phase I	July 2019
PGT121	NCT02960581 (enrolling by invitation only)	International AIDS Vaccine Initiative	Phase I	March 2018
vedolizumab (anti- $\alpha_4\beta_7$ integrin antibody)	NCT02788175	NIAID	Phase I	May 2020
VRC01LS (long-acting broadly neutralizing monoclonal antibody)	NCT02840474	NIAID	Phase I	August 2018
VRC01 in acute HIV infection	NCT02591420	NIAID	Phase I	April 2018

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Table 1. Current Clinical Trials (Cont.)

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ANTI-FIBROTIC				
losartan	NCT01852942 (closed to enrollment)	University of Minnesota	Phase II	July 2018
telmisartan	NCT02170246	Yale University	Phase I	February 2019
ANTI-INFLAMMATORY				
canakinumab (IL-1 β inhibitor)	NCT02272946	University of California, San Francisco	Phase II	June 2018
ANTI-PROLIFERATIVE				
mycophenolate mofetil (MMF)	NCT03262441	Fred Hutchinson Cancer Research Center	Phase I	August 2020
ANTIRETROVIRAL THERAPY				
dolutegravir in reservoirs	NCT02924389	Emory University	Phase N/A	June 2020
ABX464	NCT02990325	Abivax S.A.	Phase I/II	March 2018
COMBINATIONS				
maraviroc, dolutegravir, dendritic cell vaccine, auranofin, nicotinamide	NCT02961829 (closed to enrollment)	Federal University of São Paulo	Not listed	March 2019
Perturbing of HIV reservoir with immune stimulation: Fluarix, Pneumovax vaccines	NCT02707692	University of California, San Diego	Not listed	January 2021
Impact of Sirolimus and maraviroc on CCR5 expression and the HIV-1 reservoir in HIV+ kidney transplant recipients	NCT02990312	University of Maryland	Phase IV	July 2020
ROADMAP: romidepsin + 3BNC117	NCT02850016	Rockefeller University	Phase IIa	December 2018
Adoptive transfer of haploidentical natural killer cells and IL-2	NCT03346499	University of Minnesota - Clinical and Translational Science Institute	Phase II	March 2018
eCLEAR: romidepsin + 3BNC117	NCT03041012	Aarhus University Hospital	Phase II	August 2019
panobinostat + pegylated interferon-alpha2a	NCT02471430	Massachusetts General Hospital	Phase II	February 2020
Research In Viral Eradication of HIV Reservoirs (RIVER): ART, ChAdV63.HIVconsv & MVA.HIVconsv vaccines, vorinostat	NCT02336074 UK CPMS18010 (closed to enrollment)	Imperial College London	Phase II	July 2018

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COMBINATIONS (Cont.)				
disulfiram + vorinostat	NCT03198559 (suspended for review of adverse events)	The Peter Doherty Institute for Infection and Immunity	Phase I/II	July 2027
SB-728mR-T (autologous CD4 T cells genetically modified at the CCR5 gene) + cyclophosphamide	NCT02225665 (closed to enrollment)	Sangamo BioSciences	Phase I/II	June 2018
AGS-004 + vorinostat	NCT02707900	NIAID	Phase I	December 2019
CD4-ZETA gene-modified T cells +/- interleukin-2 (IL-2)	NCT01013415 (closed to enrollment)	University of Pennsylvania	Phase I	July 2021
DCV3 (dendritic cell-based vaccine pulsed with autologous inactivated HIV) + pegylated interferon	NCT02767193	Judit Pich Martínez, Fundació Clínic per la Recerca Biomèdica	Phase I	June 2018
MVA.HIVconsv + romidepsin	NCT02616874 (closed to enrollment)	IrsiCaixa	Phase I	October 2017
SB-728mR-T + cyclophosphamide	NCT02388594 (closed to enrollment)	University of Pennsylvania	Phase I	December 2018
vorinostat + HXTC: HIV 1 antigen expanded specific T cell therapy	NCT03212989	Julia Sung, MD, University of North Carolina, Chapel Hill	Phase I	June 2021
vorinostat +/- tamoxifen in postmenopausal women	NCT03382834	NIAID	Phase I	November 2019
CYTOKINES				
interleukin-2 (IL2)	NCT03308786 (not yet open for enrollment)	Case Western Reserve University	Phase II	December 2018
GENE THERAPIES				
Cal-1: Dual anti-HIV gene transfer construct	NCT01734850 (closed to enrollment) NCT02390297 (long term safety phase)	Calimmune	Phase I/II	October 2017 January 2032
VRX496 (gene-modified autologous CD4 T cells)	NCT00295477 (closed to enrollment)	University of Pennsylvania	Phase I/II	December 2020
Chimeric Antigen Receptor (CAR)-T cell therapy	NCT03240328 (not yet open for enrollment)	Guangzhou 8th People's Hospital	Phase I	December 2018

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Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
GENE THERAPIES (Cont.)				
SB-728mR-HSPC (autologous hematopoietic stem/progenitor cells genetically modified at the CCR5 gene)	NCT02500849	City of Hope Medical Center	Phase I	July 2018
MazF-T (redirected MazF-CD4 autologous T cells)	NCT01787994 (closed to enrollment)	Takara Bio/University of Pennsylvania	Phase I	December 2017
C34-CXCR4 (autologous CD4 T cells gene-modified to express HIV-inhibiting peptide C34)	NCT03020524	University of Pennsylvania	Phase I	January 2018
GENE THERAPIES FOR HIV-POSITIVE PEOPLE WITH CANCERS				
Stem cells gene-modified with CCR5 shRNA/TRIM5alpha/TAR decoy	NCT02797470	AIDS Malignancy Consortium	Phase I/II	September 2019
Stem cells gene-modified with C46/CCR5/P140K	NCT02343666	Fred Hutchinson Cancer Research Center	Phase I	August 2020
Stem cells gene-modified with Cal-1	NCT02378922 (suspended)	Fred Hutchinson Cancer Research Center	Phase I	June 2019
CRISPR CCR5 modified CD34+ cells	NCT03164135	307 Hospital of PLA (Affiliated Hospital of Academy to Military Medical Sciences)	Not listed	May 20, 2021
Stem cells gene-modified to encode multiple anti-HIV RNAs (rHIV7-shI-TAR-CCR5RZ)	NCT02337985	City of Hope Medical Center	Not listed	June 2031
Stem cells gene-modified to encode multiple anti-HIV RNAs (rHIV7-shI-TAR-CCR5RZ) + busulfan	NCT01961063 (closed to enrollment)	City of Hope Medical Center	Not listed	October 2030
Stem cells gene-modified to encode multiple anti-HIV RNAs (rHIV7-shI-TAR-CCR5RZ)	NCT00569985 (closed to enrollment)	City of Hope Medical Center	Not listed	July 2018
HORMONES				
somatotropin (human growth hormone)	NCT03091374	McGill University Health Center	Phase II	June 2019
IMAGING STUDIES				
Radiolabeled broadly neutralizing anti-HIV antibody 3BNC117 + Copper-64 radio isotope followed by MRI/PET scanning to detect HIV in vivo	NCT03063788 (not yet open for enrollment)	Bayside Health	Phase I	December 2017

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Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
IMMUNE CHECKPOINT INHIBITORS				
durvalumab (anti-PD-L1 antibody) in solid tumors	NCT03094286	Spanish Lung Cancer Group	Phase II	April 2022
nivolumab (anti-PD-1 antibody) + ipilimumab (anti-CTLA-4 antibody) in treating patients with advanced HIV associated solid tumors	NCT02408861	National Cancer Institute (NCI)	Phase I	December 2020
pembrolizumab (anti-PD-1 antibody) in treating patients with HIV and relapsed, refractory, or disseminated malignant neoplasms	NCT02595866	National Cancer Institute (NCI)	Phase I	April 2018
pembrolizumab (anti-PD-1 antibody) single dose	NCT03239899	National Institute of Neurological Disorders and Stroke (NINDS)	Phase I	December 2020
JANUS KINASE INHIBITORS				
ruxolitinib	NCT02475655	NIAID	Phase II	February 2018
LATENCY-REVERSING AGENTS				
Chidamide	NCT02902185 (closed to enrollment)	Tang-Du Hospital	Phase II/III	December 2018
Poly-ICLC (TLR-3 agonist)	NCT02071095 (closed to enrollment)	Nina Bhardwaj, MD/Campbell Foundation/Oncovir, Inc.	Phase I/II	June 2017
romidepsin (HDAC inhibitor)	NCT01933594 (closed to enrollment)	AIDS Clinical Trials Group/NIAID/Gilead	Phase I/II	May 2018
vesatolimod (TLR-7 agonist) in ART-treated HIV controllers	NCT03060447	Gilead Sciences	Phase Ib	September 2018
vesatolimod (formerly GS-9620) (TLR-7 agonist)	NCT02858401 (closed to enrollment)	Gilead Sciences	Phase Ib	November 2019
ALT-803 (recombinant human super agonist interleukin-15 complex)	NCT02191098	University of Minnesota - Clinical and Translational Science Institute	Phase I	December 2017
Kansui (traditional Chinese medicine containing ingenols)	NCT02531295 (suspended)	UCSF	Phase I	December 2019

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mTOR INHIBITORS				
Impact of Everolimus on HIV persistence post kidney or liver transplant	NCT02429869 (closed to enrollment)	UCSF	Phase IV	January 2018
Sirolimus	NCT02440789 (closed to enrollment)	ACTG	Phase I/II	January 2018
metformin	NCT02659306	McGill University Health Center	Phase I	April 2018
PROTEASOME INHIBITORS				
ixazomib	NCT02946047	Nathan W. Cummins, M.D.	Phase I/II	September 2019
STEM CELL TRANSPLANTATION				
HIVECT : HIV eradication through cord-blood transplantation	NCT02923076	Puerta de Hierro University Hospital	N/A	December 2018
IMPAACT P1107 : Cord blood transplantation using CCR5-Δ32 donor cells for the treatment of HIV and underlying disease	NCT02140944	IMPAACT/NIAID/Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)	N/A	March 2023
BMT CTN 0903 : Allogeneic transplant in individuals with chemotherapy-sensitive hematologic malignancies and coincident HIV infection	NCT01410344 (closed to enrollment)	National Heart, Lung, & Blood Institute/National Cancer Institute/Blood & Marrow Transplant Clinical Trials Network	Phase II	December 2018
Maraviroc in HIV-1+ individuals requiring allogeneic hematopoietic cell transplant	NCT03118661	Washington University School of Medicine	Phase I	May 2025
THERAPEUTIC VACCINES				
iHIVARNA-01 (TriMix & HIV antigen naked messenger RNA)	NCT02888756 (closed to enrollment)	Rob Gruters, Erasmus Medical Center	Phase IIa	June 2018
GTU-multiHIV + LIPO-5 (DNA + lipopeptide vaccines)	NCT01492985 (closed to enrollment)	French National Institute for Health and Medical Research/French National Agency for Research on AIDS and Viral Hepatitis (Inserm-ANRS)	Phase II	October 2017
GTU-MultiHIV B-clade + MVA HIV-B (DNA + viral vector vaccines)	NCT02972450 (not yet open for enrollment)	Inserm-ANRS	Phase II	July 2018
THV01 (lentiviral vector-based therapeutic vaccine)	NCT02054286 (closed to enrollment)	Theravectys S.A.	Phase I/II	March 2019

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Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
THERAPEUTIC VACCINES (Cont.)				
Ad26.Mos4.HIV + MVA-Mosaic or clade C gp140 + mosaic gp140	NCT03307915 (not yet open for enrollment)	Janssen Vaccines & Prevention B.V.	Phase I	February 2020
Ad26.Mos.HIV + MVA-Mosaic	NCT02919306 (closed to enrollment)	Janssen Vaccines & Prevention B.V.	Phase I	May 2019
DNA.HTI + MVA.HTI	NCT03204617 (closed to enrollment)	Aelix Therapeutics	Phase I	May 2018
MAG-pDNA + rVSV_{IN} HIV-1 Gag (DNA + viral vector vaccines)	NCT01859325 (closed to enrollment)	NIAID/Profectus Biosciences, Inc.	Phase I	August 2019
Recombinant adenovirus type 5 vaccine	NCT02762045	Centers for Disease Control and Prevention, China	Phase I	December 2017
TRADITIONAL CHINESE MEDICINE				
Triptolide wilfordii	NCT02219672	Peking Union Medical College	Phase III	July 2017
TREATMENT INTENSIFICATION/EARLY TREATMENT				
LEOPARD: Latency and early neonatal provision of antiretroviral drugs clinical trial	NCT02431975	Columbia University	Not listed	July 2020
New Era Study: Treatment with multi-drug class (MDC) HAART	NCT00908544 (closed to enrollment)	MUC Research GmbH	Not listed	November 2019
Antiretroviral regime for viral eradication in newborns	NCT02712801	National Center for Women and Children's Health, China CDC	Phase IV	December 2018
DGVTRU: Immediate initiation of antiretroviral therapy during "hyperacute" HIV infection	NCT02656511	UCSF	Phase IV	January 2018
AAHIV: Antiretroviral therapy for acute HIV infection	NCT00796263	South East Asia Research Collaboration with Hawaii	Phase III	July 2019
tenofovir/emtricitabine + dolutegravir or tenofovir/emtricitabine + darunavir/cobicistat	NCT02987530	Inserm-ANRS	Phase III	December 2019
VIRECURE: Impact of extremely early ART to reduce viral reservoir & induce functional cure of HIV infection	NCT02588820	David Garcia Cinca, Hospital Clinic of Barcelona	Phase III	November 2018

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Table 1. Current Clinical Trials (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
TREATMENT INTENSIFICATION/EARLY TREATMENT (Cont.)				
EIT: Early infant HIV treatment in Botswana	NCT02369406	Harvard School of Public Health	Phase II/III	February 2019
EARLIER: Early ART to limit infection and establishment of reservoir	NCT02859558	AIDS Clinical Trials Group	Phase II	December 2019
peginterferon alfa-2b	NCT02227277 (closed to enrollment)	The Wistar Institute	Phase II	January 2018
IMPAACT P1115: Very early intensive treatment of HIV-infected infants to achieve HIV remission	NCT02140255	IMPAACT/NIAID/NICHD	Phase I/II	April 2022

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Table 2. Observational Studies

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
Analytic treatment interruption (ATI) to assess HIV cure	NCT02437526 (enrolling by invitation only)	Mayo Clinic	N/A	May 2020
ANRS CO24 OncoVIHAC: Immune checkpoint inhibitors in HIV+ individuals with cancers	NCT03354936 (not yet open for enrollment)	Inserm-ANRS	N/A	June 2022
ANRS EP63: A chronological study of the formation of HIV cellular reservoirs through the expression of surface markers on CD4+ T lymphocytes, including CD32a	NCT03298360 (not yet open for enrollment)	Inserm-ANRS	N/A	September 2019
APACHE: Monitored antiretroviral pause in chronically infected HIV+ individuals with long-lasting suppressed viremia	NCT03198325	Ospedale San Raffaele	N/A	April 2018
Biomarkers to predict time to plasma HIV RNA rebound	NCT03001128	AIDS Clinical Trials Group	N/A	December 2020
CLEAC: Comparison of late versus early antiretroviral therapy in HIV-infected children	NCT02674867	Inserm-ANRS	N/A	December 2018
CODEX (the “Extreme” cohort)	NCT01520844	Inserm-ANRS	N/A	February 2018
Developing a functional cure for HIV disease: Clinical specimen collection from HIV+ individuals	NCT03215004	American Gene Technologies International Inc.	N/A	July 2018
EPIC4: Early Pediatric Initiation: Canada Child cure Cohort Study	CTN S 281	Canadian Institutes of Health Research (CIHR)/Canadian Foundation for AIDS Research (CANFAR)/International AIDS Society (IAS)	N/A	December 2018
Establish and characterize an acute HIV infection cohort in a high-risk population	NCT00796146	Southeast Asia Research Collaboration with Hawaii/Armed Forces Research Institute of Medical Sciences/Thai Red Cross AIDS Research Centre	N/A	July 2019
EURECA: Exploratory study of cellular reservoirs in blood	NCT02858414	Centre Hospitalier Universitaire de Besancon	N/A	December 2017
Genotyping FcγRs genes	NCT03130296	University Hospital, Strasbourg, France	N/A	April 2020

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Table 2. Observational Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
HCURE: Analysis of the impact of HCV treatment by last generation direct antiviral agents (DAA) on antiviral Immunity and HIV DNA reservoir in coinfecting HIV-HCV patients	NCT03244371	Assistance Publique Hopitaux De Marseille	N/A	February 2019
HEATHER: HIV reservoir targeting with early antiretroviral therapy	UK CPMS17589 (link currently broken)	University of Oxford/Medical Research Council/British HIV Association	N/A	September 2019
HIV-STAR: HIV sequencing after treatment interruption to identify the clinically relevant anatomical reservoir	NCT02641756 (closed to enrollment)	University Hospital, Ghent	N/A	December 2019
Host & viral factors associated with HIV elite control	UK CPMS16146 (link currently broken)	University College London Hospitals NHS Foundation Trust	N/A	May 2021
HSCT-HIV: Allogeneic hematopoietic stem cell transplantation in HIV-1 infected patients	NCT02732457	Kirby Institute	N/A	September 2019
Identification and quantification of HIV CNS latency biomarkers	NCT02989285	St Vincent's Hospital, Sydney	N/A	December 2020
ImmunoCo27: Co-adaptation between HIV and CD8 cellular immunity	NCT02886416	Inserm-ANRS	N/A	September 2018
Impact of a short-term analytical treatment interruption and re-initiation of antiretroviral therapy on immunologic and virologic parameters in HIV+ individuals	NCT03225118	NIAID	N/A	July 2020
Impact of ART adherence on HIV persistence and inflammation	NCT02797093	University of Colorado, Denver	N/A	September 2017
ISALA: Analytical treatment interruption in HIV positive patients	NCT02590354 (closed to enrollment)	Institute of Tropical Medicine, Belgium	N/A	November 2017
LoViReT: Low viral reservoir treated patients	NCT02972931 (not yet open for enrollment)	IrsiCaixa	N/A	December 2017
Post analytic treatment interruption study	NCT02761200	South East Asia Research Collaboration with Hawaii	N/A	June 2020
Quantitative measurement and correlates of the latent HIV reservoir in virally suppressed Ugandans	NCT02154035	NIAID	N/A	December 2019

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Table 2. Observational Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Estimated Study Completion Date
TESOVIR: Tracking and exploring the source of viral rebound (ART interruption)	NCT03117985	Centre Hospitalier Régional d'Orléans	N/A	February 2018
The use of leukapheresis to support HIV pathogenesis studies	NCT01161199	University of California, San Francisco	N/A	July 2020

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Table 3. Completed Studies

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
ADOPTIVE IMMUNOTHERAPY				
Early ART in combination with autologous HIV-specific cytotoxic T lymphocyte (CTL) infusion	NCT02231281	Yongtao Sun, MD, PhD, Tangdu Hospital, the Fourth Military Medical University	Phase III	N/A
ANTIBODIES				
CHERUB 001 Intravenous immunoglobulin in primary HIV infection	No clinicaltrials.gov entry	CHERUB (Collaborative HIV Eradication of viral Reservoirs: UK BRC)	N/A	HIV Med. 2017 Jul 18. doi: 10.1111/hiv.12524.
VRC01 (broadly neutralizing monoclonal antibody)	NCT02664415	National Institute of Allergy and Infectious Diseases (NIAID)	Phase II	IAS 2017, abstract TUAB0106LB (slides, video)
3BNC117	NCT02018510	Rockefeller University	Phase I	Nature. 2015 Jun 25;522(7557):487-91
VRC01	NCT02411539	NIAID	Phase I	N/A
VRC01	NCT02471326	NIAID	Phase I	N Engl J Med. 2016 Nov 24;375(21):2037-2050
VRC01	NCT02463227	NIAID	Phase I	N Engl J Med. 2016 Nov 24;375(21):2037-2050 CROI 2016, Abstract 32LB, Webcast
VRC01	NCT01950325	NIAID	Phase I	Sci Transl Med. 2015 Dec 23;7(319):319ra206
ANTI-FIBROTIC				
ACE inhibitors	NCT01535235	UCSF/amfAR	Phase IV	Pathogens and Immunity. 2017;2(3):310-34. doi: 10.20411/pai.v2i3.207

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ANTI-INFLAMMATORY				
CC-11050 (phosphodiesterase-4 inhibitor)	NCT02652546	NIAID	Phase I	N/A
ANTIRETROVIRAL THERAPY				
HIV reservoir dynamics after switching to dolutegravir in patients on a PI/r based regimen	NCT02513147	Hospital Universitari Vall d'Hebron Research Institute	Phase IV	N/A
raltegravir or efavirenz + tenofovir + emtricitabine	NCT00734344	University of Alabama at Birmingham	Phase IV	N/A
ABX464	NCT02735863	Abivax S.A.	Phase II	N/A
ANTIRETROVIRAL THERAPY IN HIV CONTROLLERS				
emtricitabine + rilpivirine + tenofovir	NCT01777997	AIDS Clinical Trials Group/NIAID	Phase IV	N/A
raltegravir + tenofovir + emtricitabine	NCT01025427	University of California, San Francisco	Phase IV	PLoS Pathog. 2013;9(10):e1003691
ASSEMBLY INHIBITOR				
BIT225	ACTRN12612000696897	Biotron Limited	Phase I	J Antimicrob Chemother. 2016 Mar;71(3):731-8
COMBINATIONS				
chemotherapy + maraviroc in people with non-Hodgkin lymphoma	NCT02486510	Fundacion para la Investigacion Biomedica del Hospital Universitario Ramon y Cajal	Phase 0	Terminated due to futility criteria
ERAMUNE-01 (antiretroviral intensification +/- interleukin-7)	NCT01019551	ORVACS/Cytheris SA/Merck Sharp & Dohme Corp./Pfizer	Phase II	AIDS. 2016 Jan;30(2):221-30
ERAMUNE-02 (DNA/Ad5 vaccine, ART intensification)	NCT00976404	Vical/GenVec/CHERUB/NIH Vaccine Research Center/ORVACS	Phase II	CROI 2014, Poster abstract 422
SB-728-T + cyclophosphamide	NCT01543152	Sangamo BioSciences	Phase I/II	CROI 2014, Abstract 141, Webcast CROI 2015, Poster abstract 434 CROI 2016, Poster abstract 358LB
Vacc-4x + romidepsin	NCT02092116	Bionor Immuno AS/Celgene	Phase I/II	Lancet HIV 2016, July 7, 2016

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COMBINATIONS (Cont.)				
Vacc-4x (peptide-based therapeutic vaccine) + lenalidomide	NCT01704781	Bionor Immuno AS	Phase I/II	IAS 2015 Towards an HIV Cure Symposium, Poster Abstract PE61
vorinostat + hydroxychloroquine + maraviroc (VHM)	NCT02475915 NCT02470351 (CNS substudy)	South East Asia Research Collaboration with Hawaii	Phase I/II	AIDS 2016, Abstract TUAX0101LB
MVA-B (viral vector vaccine) +/- disulfiram	NCT01571466	Hospital Clinic of Barcelona/HIVACAT	Phase I	J Antimicrob Chemother. 2015 Feb 26. pii: dkv046. PLoS One. 2015 Nov 6;10(11):e0141456.
GENE THERAPIES				
SB-728-T	NCT01252641	Sangamo BioSciences	Phase I/II	N/A
SB-728-T	NCT01044654	Sangamo BioSciences	Phase I	ICAAC 2014, Abstract H-643 ; 2013, Abstract H-1464c
SB-728-T	NCT00842634	Sangamo Biosciences/University of Pennsylvania	Phase I	N Engl J Med. 2014 Mar 6;370(10):901–10
Redirected high affinity Gag-specific T cells	NCT00991224	University of Pennsylvania/Adaptimmune	Phase I	N/A
HGTV43	No clinicaltrials.gov entry	Enzo Biochem	Phase I	AIDS 2006, Abstract MOPDA06
GENE THERAPIES FOR HIV-POSITIVE PEOPLE WITH CANCERS				
Stem cells gene-modified with M87o vector encoding HIV-inhibiting C46 peptide	NCT00858793	Universitätsklinikum Hamburg-Eppendorf	Phase I/II	N/A
IMMUNE CHECKPOINT INHIBITORS				
BMS-936559 (anti-PD-L1 antibody)	NCT02028403	National Institute of Allergy and Infectious Diseases (NIAID)	Phase I	CROI 2016, Abstract 25, Webcast
IRON CHELATORS				
deferiprone	NCT02456558	ApoPharma	Phase I	N/A

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LATENCY-REVERSING AGENTS				
disulfiram (acetaldehyde dehydrogenase inhibitor)	NCT01286259	University of California, San Francisco/ Johns Hopkins University/amfAR	Not specified	Clin Infect Dis. 2014 58 (6): 883–90
vorinostat (HDAC inhibitor)	NCT01365065	Bayside Health/Merck	Phase II	PLoS Pathog. 2014;10(10):e1004473
valproic acid (HDAC inhibitor)	NCT00289952	McGill University/Canadian Foundation for AIDS Research/CIHR Canadian HIV Trials Network	Phase II	HIV Med. 2012 May;13(5):291–6
valproic acid	NCT00614458	University of North Carolina at Chapel Hill/NIAID/Abbott/Merck Sharp & Dohme Corp.	Phase II	PLoS One. 2010 5(2): e9390
MGN1703 toll-like receptor 9 (TLR-9) agonist	NCT02443935	University of Aarhus	Phase Ib/IIa	Clin Infect Dis. 2017 Mar 9
Chidamide (HDAC inhibitor)	NCT02513901	Tang-Du Hospital	Phase I/II	N/A
disulfiram	NCT01944371	University of California, San Francisco/Monash University/amfAR	Phase I/II	CROI 2015, Poster abstract 428LB
panobinostat (HDAC inhibitor)	NCT01680094	University of Aarhus/Massachusetts General Hospital/Monash University/Karolinska Institutet/Novartis/amfAR	Phase I/II	The Lancet HIV. 2014 Oct; 1(1): e13–e21 CROI 2015, Abstract 109, Webcast
vorinostat	NCT01319383	University of North Carolina at Chapel Hill/NIAID/Merck.	Phase I/II	Nature. 2012 Jul 25;487(7408):482-5 J Infect Dis. 2014 Sep 1;210(5):728-35 J Clin Invest. 2017 Aug 1;127(8):3126-3135. doi: 10.1172/JCI92684
bryostatatin 1 (PKC agonist)	NCT02269605	Fundacion para la Investigacion Biomedica del Hospital Universitario Ramon y Cajal	Phase I	AIDS. 2016 Feb 17. [Epub ahead of print]

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
OBSERVATIONAL STUDIES				
ACTG A5321: Decay of HIV-1 reservoirs in subjects on long-term antiretroviral therapy: The ACTG HIV reservoirs cohort (AHRC) study	N/A	AIDS Clinical Trials Group	N/A	PLoS Pathog. 2017 Apr; 13(4): e1006285
ANRS EP 44: Residual replication of HIV-1 in the gut associated lymphoid tissue (GALT)	NCT01038401	Inserm-ANRS	N/A	N/A
CHERUB 003 (prospective HIV chemotherapy cohort study)	NCT01902693	Imperial College London/CHERUB	N/A	N/A
Effects of dolutegravir based regimen on HIV-1 reservoir and immune activation	NCT02557997	University Hospital, Strasbourg, France	N/A	J Antimicrob Chemother. 2017 Dec 13. doi: 10.1093/jac/dkx475
HIV resistance and treatment strategies	NCT00581802	NIAID	N/A	N/A
In vitro autologous vaccine development to activate HIV reservoirs	UK CPMS17532 (link currently broken)	Imperial College London/amfAR	N/A	N/A
MUCOVIR: Exploration of HIV reservoirs	NCT01019044	Objectif Recherche Vaccins SIDA	N/A	JAIDS. 2013 Mar 1;62(3):255-9
Size of the HIV-1 reservoir and ongoing replication in defined cohorts	UK CPMS16004 (link currently broken)	University College London/amfAR	N/A	N/A
Tat protein vaccine (roll-over observational study for extended follow-up of volunteers in the ISS T-003 trial)	NCT02712489	Barbara Ensoli, MD, Istituto Superiore di Sanità/Italian Ministry of Foreign Affairs	N/A	N/A
Tissue drug levels of HIV medications	NCT01490346	University of Minnesota – Clinical and Translational Science Institute/NIAID	N/A	Proc Natl Acad Sci USA. 2014 Feb 11;111(6):2307-12.
ULTRASTOP (Towards HIV Functional Cure) ERAMUNE-03 (antiretroviral treatment interruption)	NCT01876862	Objectif Recherche VACCin Sida (ORVACS)/Fondation Bettencourt Schueller	N/A	AIDS, Published Ahead-of-Print, January 4, 2016
VIRECT: Impact of pre-ART CD4 T cell level on the rectal reservoir in long-term HIV-1 treated men	NCT02526940	Centre Hospitalier Universitaire de Saint Etienne	N/A	N/A

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
STEM CELL TRANSPLANTATION				
Immune response after stem cell transplant in HIV-positive patients with hematologic cancer	NCT00968630	Fred Hutchinson Cancer Research Center	Phase II	N/A
THERAPEUTIC VACCINES				
AGS-004 (personalized therapeutic vaccine utilizing patient-derived dendritic cells and HIV antigens)	NCT00672191	Argos Therapeutics	Phase IIb	J Acquir Immune Defic Syndr. 2016 May 1;72(1):31-8
AGS-004	NCT01069809	Argos Therapeutics	Phase IIb	IAS 2015 Towards an HIV Cure Symposium, Combination Therapy Trials Roundtable CROI 2014, Poster abstract 344
DermaVir (topically applied DNA vaccine)	NCT00711230	Genetic Immunity	Phase II	N/A
DermaVir	NCT00918840	Genetic Immunity	Phase II	N/A
GSK Biologicals HIV Vaccine 732462 (p24-RT-Nef-p17 fusion protein vaccine)	NCT01218113	GlaxoSmithKline	Phase II	Medicine (Baltimore). 2016 Feb;95(6):e2673
Tat protein vaccine	NCT01513135	Barbara Ensoli, MD, Istituto Superiore di Sanità/Italian Ministry of Foreign Affairs	Phase II	N/A
Tat protein vaccine	NCT01513135	Barbara Ensoli, MD, Istituto Superiore di Sanità	Phase II	Retrovirology. 2015 Apr 29;12(1):33 PLoS One. 2010 Nov 11;5(11):e13540
Vacc-4x (peptide-based vaccine)	NCT00659789	Bionor Immuno AS	Phase II	Lancet Infect Dis. 2014 Apr;14(4):291-300
VAC-3S (peptide-based vaccine)	NCT02041247	InnaVirVax	Phase II	IAS 2017, abstract MOSY0404 (slides , video)
VAC-3S	NCT02390466	InnaVirVax	Phase I/IIa	N/A

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
THERAPEUTIC VACCINES (Cont.)				
VAC-3S (peptide-based vaccine)	NCT01549119	InnaVirVax	Phase I/IIa	30 Years of HIV Science, 2013, poster abstract 145 IAS 2015 Towards an HIV Cure Symposium, Poster Abstract PE67 LB
AGS-004	NCT02042248	University of North Carolina at Chapel Hill/Argos Therapeutics/U.S. National Institutes of Health (NIH)	Phase I/II	N/A
Autologous HIV-1 ApB DC Vaccine	NCT00510497	Sharon Riddler, University of Pittsburgh/NIAID	Phase I/II	J Infect Dis. 2016 May 1;213(9):1400-9
Dendritic cells pulsed with chemically inactivated HIV	NCT02766049	University of Sao Paulo General Hospital	Phase I/II	J Int AIDS Soc. 2014 Jan 10;17:18938 J. Cellular Immunotherapy xx (2016) 1-10
Dendritic cell vaccine	NCT00833781	Massachusetts General Hospital	Phase I/II	N/A
Dendritic cell vaccine (DCV-2)	NCT00402142	Hospital Clinic of Barcelona	Phase I/II	Sci Transl Med. 2013 Jan 2;5(166):166ra2
DermaVir	NCT00270205	AIDS Clinical Trials Group	Phase I/II	JAIDS. 2013 Dec 1;64(4):351-9
GTU®-MultiHIV B Clade Vaccine	NCT02457689	Imperial College London	Phase I/II	N/A
Tat Oyi (protein-based vaccine)	NCT01793818	Biosantech	Phase I/II	Retrovirology. 2016 Apr 1;13:21
TUTI-16 (synthetic HIV-1 Tat epitope vaccine)	NCT01335191	Thymon, LLC	Phase I/II	Hum Vaccin Immunother. 2012 Oct;8(10):1425-30
Vacc-C5 (peptide-based vaccine)	NCT01627678	Bionor Immuno AS	Phase I/II	N/A

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
THERAPEUTIC VACCINES (Cont.)				
AFO-18 (peptide-based vaccine)	NCT01141205	Statens Serum Institut (SSI)/Ministry of the Interior and Health, Denmark/European and Developing Countries Clinical Trials Partnership (EDCTP)	Phase I	AIDS Res Hum Retroviruses. 2013 Nov;29(11):1504-12
AFO-18 (peptide-based vaccine)	NCT01009762	SSI/Rigshospitalet/Hvidovre University Hosp./Ministry of Interior & Health, Denmark	Phase I	Clin Immunol. 2013 Feb;146(2):120-30
AT20-KLH	MED-AT20-001	Medestea Research & Production SpA, Turin	Phase I	Vaccine. 2014 Feb 19;32(9):1072-8
ChAdV63.HIVcons + MVA.HIVconsv (viral vector vaccines)	NCT01712425	IrsiCaixa/Fundació Lluita contra la SIDA/Hospital Clinic of Barcelona/ HIVACAT/University of Oxford	Phase I	IAS 2015, Poster abstract MOPEA036
Dendritic cells loaded with HIV-1 lipopeptides	NCT00796770	Baylor Research Institute/ANRS	Phase I	Retrovirology 2012, 9(Suppl 2):P328
DermaVir	NCT00712530	Genetic Immunity	Phase I	PLoS One. 2012 7(5): e35416
D-GPE DNA + M-GPE MVA (DNA + viral vector vaccines)	NCT01881581	Centers for Disease Control and Prevention, China	Phase I	N/A
HIVAX (lentiviral vector-based therapeutic vaccine)	NCT01428596	GeneCure Biotechnologies	Phase I	Vaccine. 2016 Apr 27;34(19):2225-32
HIV-v (peptide-based vaccine)	NCT01071031	PepTcell Limited	Phase I	Vaccine. 2013 Nov 19;31(48):5680-6
iHIVARNA-01 (TriMix & HIV antigen naked messenger RNA)	NCT02413645	Biomedical Research Institute August Pi i Sunyer (IDIBAPS)	Phase I	N/A
JS7 DNA + MVA62B (DNA + viral vector vaccines)	NCT01378156	GeoVax, Inc.	Phase I	PLoS One. 2016 Oct 6;11(10):e0163164
MAG pDNA vaccine +/- IL-12	NCT01266616	NIAID	Phase I	N/A
MVA.HIVconsv	NCT01024842	University of Oxford/Medical Research Council	Phase I	N/A
PENNVAX-B (Gag, Pol, Env) + electroporation	NCT01082692	Inovio Pharmaceuticals	Phase I	Retrovirology 2012, 9(Suppl 2):P276
PENNVAX-B +/- IL-12 or IL-15	NCT00775424	University of Pennsylvania	Phase I	N/A

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/ Sponsor(s)	Phase	Published/Presented Data
TREATMENT INTENSIFICATION/EARLY TREATMENT				
Anti-HIV medications for people recently infected with HIV	NCT00106171	NIAID	Phase IV	PLoS One. 2015 10(11):e0143259
enfuvirtide	NCT00051831	NIAID	Not listed	J Infect Dis. 2010 Jan 15;201(2):293-6
enfuvirtide	NCT00334022	Canadian Immunodeficiency Research Collaborative	Not listed	N/A
PLUS: Pilot study on the effect of adding raltegravir +/- a second drug on HIV levels in the gut	NCT00884793	University of California, San Francisco	Not listed	J Infect Dis. 2010 Nov 15;202(10):1553-61 AIDS. 2010 Oct 23;24(16):2451-60
DIORR: Dolutegravir impact on residual replication	NCT02500446	University of Melbourne	Phase IV	8th International Workshop on HIV Persistence during Therapy, 2017, Abstract OP6.4 (abstracts published by the Journal of Virus Eradication)
DRONE: Impact of starting a dolutegravir-based regimen on HIV-1 proviral DNA reservoir of treatment naïve and experienced patients	NCT02370979	University Hospital, Strasbourg, France	Phase IV	N/A
ANRS 147 OPTIPRIM: Optimization of primary HIV-1 infection treatment	NCT01033760	Inserm-ANRS	Phase III	PLoS One. 2013; 8(5): e64219. PLoS One. 2013; 8(3): e59767 IAS 2013, Abstract WEAB0101 IAS Cure Symposium, Presentation
maraviroc	NCT00808002	Germans Trias i Pujol Hospital	Phase III	AIDS. 2014 Jan 28;28(3):325-34
raltegravir + maraviroc	NCT00935480	Centre Hospitalier Intercommunal de Toulon La Seyne sur Mer	Phase III	N/A
raltegravir	NCT00554398	Germans Trias i Pujol Hospital	Phase III	Antivir Ther. 2012;17(2):355-64

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Table 3. Completed Studies (Cont.)

Trial	Trial Registry Identifier(s)	Manufacturer/Sponsor(s)	Phase	Published/Presented Data
TREATMENT INTENSIFICATION/EARLY TREATMENT (Cont.)				
Intense acute infection study	NCT01154673	University of Toronto	Phase II/III	N/A
peginterferon alfa-2b	NCT01935089	University of Pennsylvania/Wistar Institute	Phase II	CROI 2017, Abstract 326
maraviroc	NCT00795444	Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal/Pfizer	Phase II	PLoS One. 2011; 6(12):e27864 AIDS. 2013 Aug 24; 27(13):2081-8.
raltegravir	NCT00520897	Canadian Immunodeficiency Research Collaborative	Phase II	AIDS. 2012 Jan 14;26(2):167-74
raltegravir	NCT00807443	Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal	Phase II	AIDS. 2012 Sep 24;26(15):1885-94
Viral suppression after analytic treatment interruption in Thai patients who initiated HAART during acute HIV infection	NCT02614950	South East Asia Research Collaboration with Hawaii	Phase II	CROI 2017, Abstract 124, Webcast
alpha interferon intensification	NCT01295515	NIAID	Phase I/II	N/A
indinavir + zidovudine + lamivudine + nevirapine	NCT00001644	NIAID	Phase I	N/A