Raphael Gottardo

List of Publications by Year in descending order

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Version: 2024-02-01

38742 14759 22,164 134 50 127 citations h-index g-index papers 165 165 165 32925 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Integrated analysis of multimodal single-cell data. Cell, 2021, 184, 3573-3587.e29.	28.9	5,912
2	Orchestrating high-throughput genomic analysis with Bioconductor. Nature Methods, 2015, 12, 115-121.	19.0	3,070
3	MAST: a flexible statistical framework for assessing transcriptional changes and characterizing heterogeneity in single-cell RNA sequencing data. Genome Biology, 2015, 16, 278.	8.8	2,047
4	Multiple early factors anticipate post-acute COVID-19 sequelae. Cell, 2022, 185, 881-895.e20.	28.9	605
5	Critical assessment of automated flow cytometry data analysis techniques. Nature Methods, 2013, 10, 228-238.	19.0	509
6	Orchestrating single-cell analysis with Bioconductor. Nature Methods, 2020, 17, 137-145.	19.0	488
7	Exosomes in human semen carry a distinctive repertoire of small non-coding RNAs with potential regulatory functions. Nucleic Acids Research, 2014, 42, 7290-7304.	14.5	486
8	Multi-Omics Resolves a Sharp Disease-State Shift between Mild and Moderate COVID-19. Cell, 2020, 183, 1479-1495.e20.	28.9	449
9	Model-based analysis of tiling-arrays for ChIP-chip. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12457-12462.	7.1	390
10	Data exploration, quality control and testing in single-cell qPCR-based gene expression experiments. Bioinformatics, 2013, 29, 461-467.	4.1	372
11	Safety and immunogenicity of a mRNA rabies vaccine in healthy adults: an open-label, non-randomised, prospective, first-in-human phase 1 clinical trial. Lancet, The, 2017, 390, 1511-1520.	13.7	350
12	Phosphoproteomic analysis of chimeric antigen receptor signaling reveals kinetic and quantitative differences that affect cell function. Science Signaling, 2018, 11, .	3.6	323
13	Spatial transcriptomics at subspot resolution with BayesSpace. Nature Biotechnology, 2021, 39, 1375-1384.	17.5	320
14	Global Panel of HIV-1 Env Reference Strains for Standardized Assessments of Vaccine-Elicited Neutralizing Antibodies. Journal of Virology, 2014, 88, 2489-2507.	3.4	274
15	Standardizing Flow Cytometry Immunophenotyping Analysis from the Human ImmunoPhenotyping Consortium. Scientific Reports, 2016, 6, 20686.	3.3	240
16	COMPASS identifies T-cell subsets correlated with clinical outcomes. Nature Biotechnology, 2015, 33, 610-616.	17.5	232
17	T cell receptor gene therapy targeting WT1 prevents acute myeloid leukemia relapse post-transplant. Nature Medicine, 2019, 25, 1064-1072.	30.7	226
18	Automated gating of flow cytometry data via robust modelâ€based clustering. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2008, 73A, 321-332.	1.5	224

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19	Plasma IgG to Linear Epitopes in the V2 and V3 Regions of HIV-1 gp120 Correlate with a Reduced Risk of Infection in the RV144 Vaccine Efficacy Trial. PLoS ONE, 2013, 8, e75665.	2.5	214
20	Acquired cancer resistance to combination immunotherapy from transcriptional loss of class I HLA. Nature Communications, 2018, 9, 3868.	12.8	211
21	The Thai Phase III HIV Type 1 Vaccine Trial (RV144) Regimen Induces Antibodies That Target Conserved Regions Within the V2 Loop of gp120. AIDS Research and Human Retroviruses, 2012, 28, 1444-1457.	1.1	191
22	OpenCyto: An Open Source Infrastructure for Scalable, Robust, Reproducible, and Automated, End-to-End Flow Cytometry Data Analysis. PLoS Computational Biology, 2014, 10, e1003806.	3.2	185
23	Clonal kinetics and single-cell transcriptional profiling of CAR-T cells in patients undergoing CD19 CAR-T immunotherapy. Nature Communications, 2020, 11, 219.	12.8	167
24	Analysis of V2 Antibody Responses Induced in Vaccinees in the ALVAC/AIDSVAX HIV-1 Vaccine Efficacy Trial. PLoS ONE, 2013, 8, e53629.	2.5	165
25	Immunological and virological mechanisms of vaccine-mediated protection against SIV and HIV. Nature, 2014, 505, 502-508.	27.8	140
26	Multicohort analysis reveals baseline transcriptional predictors of influenza vaccination responses. Science Immunology, 2017, 2, .	11.9	122
27	Single-cell CUT& Tag analysis of chromatin modifications in differentiation and tumor progression. Nature Biotechnology, 2021, 39, 819-824.	17.5	121
28	Distinct activation thresholds of human conventional and innate-like memory T cells. JCI Insight, 2016, 1 , .	5.0	116
29	flowDensity: reproducing manual gating of flow cytometry data by automated density-based cell population identification. Bioinformatics, 2015, 31, 606-607.	4.1	105
30	A Potent Anti-Malarial Human Monoclonal Antibody Targets Circumsporozoite Protein Minor Repeats and Neutralizes Sporozoites in the Liver. Immunity, 2020, 53, 733-744.e8.	14.3	99
31	FCGR2C polymorphisms associate with HIV-1 vaccine protection in RV144 trial. Journal of Clinical Investigation, 2014, 124, 3879-3890.	8.2	99
32	Antibody Fc effector functions and IgG3 associate with decreased HIV-1 risk. Journal of Clinical Investigation, 2019, 129, 4838-4849.	8.2	95
33	Merging Mixture Components for Cell Population Identification in Flow Cytometry. Advances in Bioinformatics, 2009, 2009, 1-12.	5.7	92
34	3M-052, a synthetic TLR-7/8 agonist, induces durable HIV-1 envelope–specific plasma cells and humoral immunity in nonhuman primates. Science Immunology, 2020, 5, .	11.9	90
35	Effect of Adding Motolimod to Standard Combination Chemotherapy and Cetuximab Treatment of Patients With Squamous Cell Carcinoma of the Head and Neck. JAMA Oncology, 2018, 4, 1583.	7.1	84
36	Bayesian Robust Inference for Differential Gene Expression in Microarrays with Multiple Samples. Biometrics, 2006, 62, 10-18.	1.4	83

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37	Integrated analysis of plasma and single immune cells uncovers metabolic changes in individuals with COVID-19. Nature Biotechnology, 2022, 40, 110-120.	17.5	81
38	A Targeted Multi-omic Analysis Approach Measures Protein Expression and Low-Abundance Transcripts on the Single-Cell Level. Cell Reports, 2020, 31, 107499.	6.4	80
39	Single-cell immunology of SARS-CoV-2 infection. Nature Biotechnology, 2022, 40, 30-41.	17.5	78
40	Highly multiplexed quantitation of gene expression on single cells. Journal of Immunological Methods, 2013, 391, 133-145.	1.4	72
41	Human MAIT cells exit peripheral tissues and recirculate via lymph in steady state conditions. JCI Insight, 2018, 3, .	5.0	72
42	Modeling Bi-modality Improves Characterization of Cell Cycle on Gene Expression in Single Cells. PLoS Computational Biology, 2014, 10, e1003696.	3.2	70
43	Mixture models for single-cell assays with applications to vaccine studies. Biostatistics, 2014, 15, 87-101.	1.5	68
44	A phase 2, randomized, double-blind, placebo-Âcontrolled study of chemo-immunotherapy combination using motolimod with pegylated liposomal doxorubicin in recurrent or persistent ovarian cancer: a Gynecologic Oncology Group partners study. Annals of Oncology, 2017, 28, 996-1004.	1.2	67
45	Comparative analysis of TCR and CAR signaling informs CAR designs with superior antigen sensitivity and in vivo function. Science Signaling, $2021, 14, \ldots$	3.6	67
46	Computational resources for high-dimensional immune analysis from the Human Immunology Project Consortium. Nature Biotechnology, 2014, 32, 146-148.	17.5	65
47	A benchmark for evaluation of algorithms for identification of cellular correlates of clinical outcomes. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2016, 89, 16-21.	1.5	65
48	T Cell–Dependent Affinity Maturation and Innate Immune Pathways Differentially Drive Autoreactive B Cell Responses in Rheumatoid Arthritis. Arthritis and Rheumatology, 2018, 70, 1732-1744.	5.6	65
49	ggCyto: next generation open-source visualization software for cytometry. Bioinformatics, 2018, 34, 3951-3953.	4.1	64
50	PICS: Probabilistic Inference for ChIP-seq. Biometrics, 2011, 67, 151-163.	1.4	62
51	Single-Cell RNA Sequencing Reveals Expanded Clones of Islet Antigen-Reactive CD4+ T Cells in Peripheral Blood of Subjects with Type 1 Diabetes. Journal of Immunology, 2017, 199, 323-335.	0.8	62
52	Higher T-Cell Responses Induced by DNA/rAd5 HIV-1 Preventive Vaccine Are Associated With Lower HIV-1 Infection Risk in an Efficacy Trial. Journal of Infectious Diseases, 2017, 215, 1376-1385.	4.0	59
53	Neoantigen-specific CD4+ TÂcells in human melanoma have diverse differentiation states and correlate with CD8+ TÂcell, macrophage, and B cell function. Cancer Cell, 2022, 40, 393-409.e9.	16.8	59
54	Statistical analysis of microarray data: a Bayesian approach. Biostatistics, 2003, 4, 597-620.	1.5	58

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55	The contribution of cell cycle to heterogeneity in single-cell RNA-seq data. Nature Biotechnology, 2016, 34, 591-593.	17.5	58
56	Extricating human tumour immune alterations from tissue inflammation. Nature, 2022, 605, 728-735.	27.8	56
57	Identification and analysis of murine pancreatic islet enhancers. Diabetologia, 2013, 56, 542-552.	6.3	55
58	Vaccine-induced Human Antibodies Specific for the Third Variable Region of HIV-1 gp120 Impose Immune Pressure on Infecting Viruses. EBioMedicine, 2014, 1, 37-45.	6.1	55
59	Analysis of HLA A*02 Association with Vaccine Efficacy in the RV144 HIV-1 Vaccine Trial. Journal of Virology, 2014, 88, 8242-8255.	3.4	55
60	Comprehensive Sieve Analysis of Breakthrough HIV-1 Sequences in the RV144 Vaccine Efficacy Trial. PLoS Computational Biology, 2015, 11, e1003973.	3.2	51
61	BCG revaccination boosts adaptive polyfunctional Th1/Th17 and innate effectors in IGRA+ and IGRA– Indian adults. JCI Insight, 2019, 4, .	5.0	48
62	Humoral Responses Against Variants of Concern by COVID-19 mRNA Vaccines in Immunocompromised Patients. JAMA Oncology, 2022, 8, e220446.	7.1	48
63	Controlled Human Malaria Infection Leads to Long-Lasting Changes in Innate and Innate-like Lymphocyte Populations. Journal of Immunology, 2017, 199, 107-118.	0.8	45
64	Optimal therapeutic targeting by HDAC inhibition in biopsy-derived treatment-na \tilde{A} -ve diffuse midline glioma models. Neuro-Oncology, 2021, 23, 376-386.	1.2	43
65	Comparability and reproducibility of biomedical data. Briefings in Bioinformatics, 2013, 14, 391-401.	6.5	40
66	Highâ€throughput flow cytometry data normalization for clinical trials. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2014, 85, 277-286.	1.5	40
67	High-throughput single-cell quantification of hundreds of proteins using conventional flow cytometry and machine learning. Science Advances, 2021, 7, eabg0505.	10.3	39
68	An Integrated Pipeline for the Genome-Wide Analysis of Transcription Factor Binding Sites from ChIP-Seq. PLoS ONE, 2011, 6, e16432.	2.5	39
69	A Functional Toll-Interacting Protein Variant Is Associated with Bacillus Calmette-Guérin–Specific Immune Responses and Tuberculosis. American Journal of Respiratory and Critical Care Medicine, 2017, 196, 502-511.	5 . 6	38
70	Evaluation of the host transcriptional response to human cytomegalovirus infection. Physiological Genomics, 2004, 18, 51-62.	2.3	35
71	Late-Stage Cancer Patients Remain Highly Responsive to Immune Activation by the Selective TLR8 Agonist Motolimod (VTX-2337). Clinical Cancer Research, 2015, 21, 5445-5452.	7.0	33
72	DNA Priming Increases Frequency of T-Cell Responses to a Vesicular Stomatitis Virus HIV Vaccine with Specific Enhancement of CD8 ⁺ T-Cell Responses by Interleukin-12 Plasmid DNA. Vaccine Journal, 2017, 24, .	3.1	33

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73	A Flexible and Powerful Bayesian Hierarchical Model for ChIP–Chip Experiments. Biometrics, 2008, 64, 468-478.	1.4	31
74	Superiority in Rhesus Macaques of Targeting HIV-1 Env gp140 to CD40 versus LOX-1 in Combination with Replication-Competent NYVAC-KC for Induction of Env-Specific Antibody and T Cell Responses. Journal of Virology, 2017, 91, .	3.4	29
75	<i>CytoML</i> for crossâ€platform cytometry data sharing. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2018, 93, 1189-1196.	1.5	29
76	A regulatory T cell signature distinguishes the immune landscape of COVID-19 patients from those with other respiratory infections. Science Advances, 2021, 7, eabj0274.	10.3	28
77	The Inner Foreskin of Healthy Males at Risk of HIV Infection Harbors Epithelial CD4+ CCR5+ Cells and Has Features of an Inflamed Epidermal Barrier. PLoS ONE, 2014, 9, e108954.	2.5	27
78	T Cell Responses against Mycobacterial Lipids and Proteins Are Poorly Correlated in South African Adolescents. Journal of Immunology, 2015, 195, 4595-4603.	0.8	27
79	Integrated systems approach defines the antiviral pathways conferring protection by the RV144 HIV vaccine. Nature Communications, 2019, 10, 863.	12.8	27
80	Sieve analysis of breakthrough HIV-1 sequences in HVTN 505 identifies vaccine pressure targeting the CD4 binding site of Env-gp120. PLoS ONE, 2017, 12, e0185959.	2.5	27
81	Engineered Adoptive T-cell Therapy Prolongs Survival in a Preclinical Model of Advanced-Stage Ovarian Cancer. Cancer Immunology Research, 2019, 7, 1412-1425.	3.4	26
82	Identification and visualization of multidimensional antigenâ€specific Tâ€cell populations in polychromatic cytometry data. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2015, 87, 675-682.	1.5	25
83	flowCL: ontology-based cell population labelling in flow cytometry. Bioinformatics, 2015, 31, 1337-1339.	4.1	25
84	Combined single-cell quantitation of host and SIV genes and proteins ex vivo reveals host-pathogen interactions in individual cells. PLoS Pathogens, 2017, 13, e1006445.	4.7	25
85	Priming with a Potent HIV-1 DNA Vaccine Frames the Quality of Immune Responses prior to a Poxvirus and Protein Boost. Journal of Virology, 2019, 93, .	3.4	25
86	Probabilistic segmentation and intensity estimation for microarray images. Biostatistics, 2006, 7, 85-99.	1.5	24
87	IDEAS: individual level differential expression analysis for single-cell RNA-seq data. Genome Biology, 2022, 23, 33.	8.8	24
88	Markov Chain Monte Carlo With Mixtures of Mutually Singular Distributions. Journal of Computational and Graphical Statistics, 2008, 17, 949-975.	1.7	23
89	On-line changepoint detection and parameter estimation with application to genomic data. Statistics and Computing, 2012, 22, 579-595.	1.5	23
90	Automated analysis of flow cytometry data comes of age. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2016, 89, 13-15.	1.5	23

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91	Panels of HIV-1 Subtype C Env Reference Strains for Standardized Neutralization Assessments. Journal of Virology, 2017, 91, .	3.4	23
92	Tumor suppression of novel anti–PD-1 antibodies mediated through CD28 costimulatory pathway. Journal of Experimental Medicine, 2019, 216, 1525-1541.	8.5	23
93	Potential To Streamline Heterologous DNA Prime and NYVAC/Protein Boost HIV Vaccine Regimens in Rhesus Macaques by Employing Improved Antigens. Journal of Virology, 2016, 90, 4133-4149.	3.4	22
94	New interpretable machine-learning method for single-cell data reveals correlates of clinical response to cancer immunotherapy. Patterns, 2021, 2, 100372.	5.9	22
95	cytometree: A binary tree algorithm for automatic gating in cytometry analysis. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2018, 93, 1132-1140.	1.5	21
96	Probabilistic Inference for Nucleosome Positioning with MNase-Based or Sonicated Short-Read Data. PLoS ONE, 2012, 7, e32095.	2.5	20
97	Targeting HIV-1 Env gp140 to LOX-1 Elicits Immune Responses in Rhesus Macaques. PLoS ONE, 2016, 11, e0153484.	2.5	20
98	Bayesian robust transformation and variable selection: A unified approach. Canadian Journal of Statistics, 2009, 37, 361-380.	0.9	19
99	A computational framework for the analysis of peptide microarray antibody binding data with application to HIV vaccine profiling. Journal of Immunological Methods, 2013, 395, 1-13.	1.4	19
100	Graphical models for zero-inflated single cell gene expression. Annals of Applied Statistics, 2019, 13, 848-873.	1.1	19
101	The human memory T cell compartment changes across tissues of the female reproductive tract. Mucosal Immunology, 2021, 14, 862-872.	6.0	19
102	Whole blood transcriptome changes following controlled human malaria infection in malaria pre-exposed volunteers correlate with parasite prepatent period. PLoS ONE, 2018, 13, e0199392.	2.5	18
103	A composite immune signature parallels disease progression across T1D subjects. JCI Insight, 2019, 4, .	5.0	15
104	Generation and characterization of a bivalent protein boost for future clinical trials: HIV-1 subtypes CR01_AE and B gp120 antigens with a potent adjuvant. PLoS ONE, 2018, 13, e0194266.	2.5	14
105	Stateâ€ofâ€theâ€Art in the Computational Analysis of Cytometry Data. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2015, 87, 591-593.	1.5	13
106	Replication-Competent NYVAC-KC Yields Improved Immunogenicity to HIV-1 Antigens in Rhesus Macaques Compared to Nonreplicating NYVAC. Journal of Virology, 2019, 93, .	3.4	13
107	Monocyte metabolic transcriptional programs associate with resistance to tuberculin skin test/interferon- \hat{l}^3 release assay conversion. Journal of Clinical Investigation, 2021, 131, .	8.2	13
108	B Cells With High Side Scatter Parameter by Flow Cytometry Correlate With Inferior Survival in Diffuse Large B-Cell Lymphoma. American Journal of Clinical Pathology, 2012, 137, 805-814.	0.7	12

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109	Targeting an alternate Wilms' tumor antigen 1 peptide bypasses immunoproteasome dependency. Science Translational Medicine, 2022, 14, eabg8070.	12.4	12
110	Optimal priming of poxvirus vector (NYVAC)-based HIV vaccine regimens for T cell responses requires three DNA injections. Results of the randomized multicentre EV03/ANRS VAC20 Phase I/II Trial. PLoS Pathogens, 2020, 16, e1008522.	4.7	11
111	Promises and Pitfalls of High-Throughput Biological Assays. Methods in Molecular Biology, 2016, 1415, 225-243.	0.9	10
112	Recombinant HIV-1 vaccine candidates based on replication-defective flavivirus vector. Scientific Reports, 2019, 9, 20005.	3.3	10
113	Quality Control and Robust Estimation for cDNA Microarrays With Replicates. Journal of the American Statistical Association, 2006, 101, 30-40.	3.1	9
114	Notch-mediated expansion of cord blood progenitors: maintenance of transcriptional and epigenetic fidelity. Leukemia, 2015, 29, 1948-1951.	7.2	9
115	Characterization of the cell-mediated immune response to Takeda's live-attenuated tetravalent dengue vaccine in adolescents participating in a phase 2 randomized controlled trial conducted in a dengue-endemic setting. Vaccine, 2022, 40, 1143-1151.	3.8	9
116	Comprehensive Data Integration Approach to Assess Immune Responses and Correlates of RTS,S/AS01-Mediated Protection From Malaria Infection in Controlled Human Malaria Infection Trials. Frontiers in Big Data, 2021, 4, 672460.	2.9	8
117	Spatial UMAP and Image Cytometry for Topographic Immuno-oncology Biomarker Discovery. Cancer Immunology Research, 2021, 9, 1262-1269.	3.4	8
118	Optimizing clinical dosing of combination broadly neutralizing antibodies for HIV prevention. PLoS Computational Biology, 2022, 18, e1010003.	3.2	8
119	Monocyte Transcriptional Responses to Mycobacterium tuberculosis Associate with Resistance to Tuberculin Skin Test and Interferon Gamma Release Assay Conversion. MSphere, 2022, 7, .	2.9	8
120	DataPackageR: Reproducible data preprocessing, standardization and sharing using R/Bioconductor for collaborative data analysis. Gates Open Research, 2018, 2, 31.	1.1	6
121	Global and context-specific transcriptional consequences of oncogenic Fbw7 mutations. ELife, 2022, 11, .	6.0	6
122	CD101 genetic variants modify regulatory and conventional TÂcell phenotypes and functions. Cell Reports Medicine, 2021, 2, 100322.	6.5	5
123	Bayesian Hierarchical Modeling for Subject-Level Response Classification in Peptide Microarray Immunoassays. Biometrics, 2016, 72, 1206-1215.	1.4	4
124	Development of a clinically relevant ovarian cancer model incorporating surgical cytoreduction to evaluate treatment of micro-metastatic disease. Gynecologic Oncology, 2021, 160, 427-437.	1.4	4
125	Analyzing Peptide Microarray Data with the R pepStat Package. Methods in Molecular Biology, 2016, 1352, 127-142.	0.9	4
126	DataPackageR: Reproducible data preprocessing, standardization and sharing using R/Bioconductor for collaborative data analysis. Gates Open Research, 0, 2, 31.	1.1	4

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127	Transcriptional correlates of malaria in RTS,S/AS01-vaccinated African children: a matched case–control study. ELife, 2022, 11, .	6.0	4
128	Aggregating transcript-level analyses for single-cell differential gene expression. Nature Methods, 2020, 17, 583-585.	19.0	3
129	Safety and immunogenicity of an HIV-1 gp120-CD4 chimeric subunit vaccine in a phase 1a randomized controlled trial. Vaccine, 2021, 39, 3879-3891.	3.8	3
130	Th2-Biased Transcriptional Profile Predicts HIV Envelope-Specific Polyfunctional CD4+ T Cells That Correlated with Reduced Risk of Infection in RV144 Trial. Journal of Immunology, 2022, 209, 526-534.	0.8	3
131	Reply to The contribution of cell cycle to heterogeneity in single-cell RNA-seq data. Nature Biotechnology, 2016, 34, 593-595.	17.5	2
132	Clonal Kinetics and Single Cell Transcriptional Profiling of Adoptively Transferred CD19 CAR-T Cells. Blood, 2018, 132, 702-702.	1.4	1
133	Long-Term Follow-up and Single-Cell Multiomics Characteristics of Infusion Products in Patients with Chronic Lymphocytic Leukemia Treated with CD19 CAR-T Cells. Blood, 2021, 138, 1749-1749.	1.4	1
134	Comprehensive Sieve Analysis of Breakthrough HIV-1 Sequences in the RV144 Vaccine Efficacy Trial. AIDS Research and Human Retroviruses, 2014, 30, A25-A26.	1.1	0