CURRICULUM VITAE

NAME: Harris Goldstein

EDUCATION:

B.A., 1976, Yeshiva University
M.D., 1980, Albert Einstein College of Medicine

POST-GRADUATE TRAINING:

1980-1981	Intern, Department of Pediatrics, Bronx Municipal Hospital Medical Center, Bronx, NY
1981-1983	Resident, Department of Pediatrics, Bronx Municipal Hospital Medical Center, Bronx, NY
1983-1986	Medical Staff Fellow, Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD
1986-1987	Senior Staff Fellow, Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD

ACADEMIC APPOINTMENTS:

1987-1993	Assistant Professor Department of Pediatrics Albert Einstein College of Medicine Bronx, New York
1987-1991	Associate Department of Microbiology and Immunology Albert Einstein College of Medicine Bronx, New York
1991-1996	Assistant Professor Department of Microbiology and Immunology Albert Einstein College of Medicine Bronx, New York
1993-1998	Associate Professor Department of Pediatrics Albert Einstein College of Medicine Bronx, New York
1996-2001	Associate Professor Department of Microbiology and Immunology Albert Einstein College of Medicine Bronx, New York

1998- Professor
Department of Pediatrics
Albert Einstein College of Medicine
Bronx, New York

2001- Professor
Department of Microbiology and Immunology
Albert Einstein College of Medicine
Bronx, New York

2002- 2005 Vice Chairman for Research Affairs
Department of Pediatrics
Albert Einstein College of Medicine
Bronx, New York

2004- Tenured Professor
Departments of Pediatrics and Microbiology and Immunology
Albert Einstein College of Medicine
Bronx, New York

2009- Charles Michael Chair in Autoimmune Diseases
Albert Einstein College of Medicine
Bronx, New York

2001- Director
Einstein-Montefiore Center for AIDS Research
Albert Einstein College of Medicine
Bronx, New York

2007-2012 Assistant Dean for Scientific Resources
Albert Einstein College of Medicine
Bronx, New York

2012- Associate Dean for Scientific Resources
Albert Einstein College of Medicine
Bronx, New York

HOSPITAL APPOINTMENTS:

1987- Attending
Montefiore Medical Center and
The Jack D. Weiler Hospital of the Albert Einstein College of Medicine
Bronx, New York

1987-1996 Assistant Attending
Bronx Municipal Hospital Center
Bronx, New York

1987-1996 Assistant Attending
North Central Bronx Hospital
Bronx, New York

BOARD CERTIFICATION:

1985- American Board of Pediatrics,
1985- American Board of Allergy and Immunology,
1990- Diagnostic Laboratory Immunology, American Board of Allergy/Immunology,

MEDICAL LICENSES

1981- New York State,
1984- Maryland,

PROFESSIONAL SOCIETY MEMBERSHIP:

Member, American Academy of Allergy and Immunology
Member, New York Academy of Sciences
Member, Leo M. Davidoff Society
Member, American Association of Immunologists
Member, Harvey Society
Member, Society for Pediatric Research
Member, American Pediatric Society

AWARDS AND HONORS

1994- Election to Leo Davidoff Society for excellence in teaching.
1995- Election to Society for Pediatric Research
1996- Invited Speaker, Graduate Dinner for Sue Golding Graduate School
1997- Samuel M. Rosen Outstanding Teacher Award for Instruction In The Pre-Clinical Curriculum
2001- Harry Eagle Award for Outstanding Basic Science Teaching
2005- Election to American Pediatric Society
2005- Keynote Address: Nelson Rosenthal Convocation for Students, March of Dimes Greater New York Chapter

PROFESSIONAL ACTIVITIES:

Ad hoc Reviewer: *AIDS Res. and Hum. Retro, Blood, Brain Research*, *Molecular and Cellular Biology*, *Lancet, J. Immunology, J. Experimental Medicine*, *J. Infectious Diseases, J. Clinical Investigation, J. Allergy Clin. Immunol., Nature Medicine*, *Nature Biotechnology*, and *Proc. Natl. Acad. Sci.*
Commentary Writer: *Current AIDS Literature*

1989- Reviewer: NIH, NIAID, Ad Hoc Study Section for Core Immunology Laboratory for AIDS Vaccine Clinical Trials
1994- Reviewer: NIH, NIAID, Ad Hoc Study Section for Master Agreement for HIV Preclinical Vaccine Development.

1994- Reviewer: NIH, NIAID, Ad Hoc Study Section for Clinical Investigator Awards.
1995- Reviewer: NIH, NIAID, Ad Hoc Study Section for Strategic Programs for Innovative Research on AIDS Treatment.
1999- Member, Albert Einstein College of Medicine Cancer Center.
1999 and 2002- Reviewer: Israel Science Foundation.
1999- Reviewer: NIH, NIAID, Ad Hoc Study Section ZRG1-AARR-1 Special Emphasis Panel.
2000- Reviewer: NIH, NIAID, Ad hoc Study Section for the Review of Tissue-Based Small Animal Model For HIV-1 Drug Discovery.
2000- Outside Member, Ph.D. Thesis Committee (for Sujata Warrier), Department of Biology, New York University.
2002- Outside Examiner, Ph.D. Thesis Committee, The Department of Medical Microbiology & Immunology, University of Alberta, Edmonton. Canada.
2005- Reviewer: NIH, NIAID, CSR-HIV/AIDS Vaccines (VACC) Study Section.
2005- Reviewer: NIH, NIAID, Special Emphasis Panel/Scientific Review Group.
2005- Reviewer: NIH, NIAID, NIH ZRG1 AARR-C HIV Study Section.
2006- Reviewer: NIH, NIAID, CSR-HIV/AIDS Vaccines (VACC) Study Section.
2006- Reviewer: NIH ZRG1 AARR-C HIV Study Section.
2006- Reviewer: NIH ZMH1 ERBS05 Novel-HIV Therapies SEP Study Section.
2006- Reviewer: NIH CSR AIDS Immunology and Pathogenesis Study Section.
2006- Reviewer: NIH ZAI1 Novel HIV Therapies/IPCP Study Section.
2009- Reviewer: NIH CSR ZRG1 AARR-A HIV/AIDS Vaccines Study Section.
2009- Reviewer: NIH-CSR ZA11-RB-A-S1 Special Emphasis Panel.
2011- Reviewer: NIH-CSR- ZAI1-ESB-A-M2 Special Emphasis Panel.
2011- Reviewer: NIH-CSR-ZRG1-AARR-C Special Emphasis Panel.
2011- Reviewer: ZRG1 AARR-C Special Emphasis Panel.
2012- Reviewer: P50 NIDA Center of Excellence Review Committee.
2013- Reviewer: CSR AIDS Discovery and Development of Therapeutics Study Section.
2013- Reviewer: AIDS and AIDS-Related Research Fellowship Special Emphasis Panel (SEP), ZRG1 AARR-C.
2014- Reviewer: Special Emphasis Panel/Scientific Review Group 2014/05 ZRG1 AARR-K.
2014- Reviewer: Special Emphasis Panel/Scientific Review Group 2015/01 ZAI1 BLF-A (J2). 2014, 2015/01 ZAI1 DR-A (J2) Innovation for Vaccine Discovery (R01).
2014- Reviewer: Special Emphasis Panel/Scientific Review Group 2015/01 ZRG1 AARR-C.
2015- Reviewer: Mucosal Environment and HIV Prevention (MEHP II) (R01).
2016- Reviewer: NIDCR Oral Immunoplasticity and HIV, Special Emphasis Panel/Scientific Review Group 2016/05 ZDE1 CF(17).
2016- Reviewer: US-South Africa Program for Collaborative Biomedical Research, Special Emphasis Panel/Scientific Review Group 2017/01 ZRG1 AARR-K (51)R.

2017- Reviewer: Developmental Centers for AIDS Research (P30), Special Emphasis Panel/Scientific Review Group 2018/01 ZAI-JRR-A-J2.
2017- Reviewer: Advancing Exceptional Research on HIV/AIDS and Substance Abuse (R01), Special Emphasis Panel/Scientific Review Group 2018/01 ZAI1 JRR-A (J2).
2018- Reviewer: Developmental and Centers for AIDS Research (P30), Special Emphasis Panel/Scientific Review Group, 2019/01 ZAI1-AL-A-J1.
2019- Reviewer: NIDA Research "Center of Excellence" Grant Program (P50) 2019/05 ZDA1 GXM-A (02) S.
2019- Reviewer: Centers for AIDS Research (P30) and Developmental Centers for AIDS Research (P30) 2020/01 ZAI1 CB-A (J1).
2020- Reviewer: NIDA Core and Research Center of Excellence (P30/50) Grant Program, 2020/05 ZDA1 YXF-U (01) S.

TEACHING EXPERIENCE:

Previous

1988-1989 Laboratory Instructor, Infectious Diseases, Einstein College of Medicine,
I was laboratory instructor to a module (~ 20) first year students for 4 laboratory sessions.

1988-1992 Attending, Jacobi Hospital, Pediatrics Ward,
I was ward attending to a team consisting of a senior resident, four interns, three- to four medical students and occasionally a subintern. This involved conducting teaching and patient care rounds for about 2- 3 hours every morning for 1 month.

1987-1996 Course Lecturer, Cell Biology, Einstein College of Medicine,
I gave two lectures during the indicated time period in this course which was presented yearly to first year medical students until 1996 after which time it was combined with the new integrated Molecular and Cellular Foundations of Medicine (MCFM).

1988-1997 Course Lecturer, Immunology, Einstein College of Medicine,
I gave four lectures during the indicated time period in this course which was presented yearly to first year medical students until 1997 after which time it was combined with the new integrated Molecular and Cellular Foundations of Medicine (MCFM).

1992-1997 Course Lecturer, Medical Biochemistry, Einstein College of Medicine,
I gave one lecture during the indicated time period in this course which was presented yearly to first year medical students until 1997 after which time it was combined with the new integrated Molecular and Cellular Foundations of Medicine (MCFM).

1993-2002 Attending, Montefiore Medical Center Hospital, Childrens' Ward,
I am ward attending to a team consisting of a senior resident, four interns, three- to four medical students and occasionally a subintern. This involved conducting teaching and patient care rounds for about 2- 3 hours every morning for 1 month.

2000 -2015 Lecturer, Albert Einstein College of Medicine Pediatric Clerkship Lectures and Problem-based Learning program, I give one lecture entitled, “From the bench to the bed: Translational Research in the didactic course given to third year Einstein students at the start of each Einstein College of Medicine Pediatric clerkship (six times/year).

2003-2005 Co-Director, Department of Pediatrics Fellow’s Research Conference.
To provide a Department-wide scientific venue for the over 40 fellows in the Pediatrics Department, I co-direct with Dr. Anne Etgen a biweekly series of alternating research conferences and journal club presentations on basic, clinical and epidemiological research topics presented by the pediatric fellows. In addition, Dr. Etgen and I initiated and organized a yearly one-day retreat for all of the pediatric fellows to provide a venue for teaching a curriculum of introductory core research topics including methodologies, ethical issues, study design and statistics. .

2003-2006 Attending, Children’s Hospital at Montefiore (CHAM), Childrens’ Ward.
I was ward attending to a team consisting of a senior resident, four interns, three- to four medical students and occasionally a subintern. This involved conducting teaching and patient care rounds for about 2- 3 hours every morning for 2 weeks/year.

2004-2005 Director and Lecturer, Molecular Medicine in the 21st Century Course, CHAM.
I developed and directed with Dr. Alan Shanske an eight session course for CHAM pediatric residents. The course used a Journal Club format to teach pediatrics residents about advances on genomics and how it is transforming the diagnosis and treatment of disease. I mentored the residents presenting articles and lectured in four sessions.

2004-2005 Director and Lecturer, Advances in Cellular Medicine Course, CHAM.
I developed and directed this course for CHAM pediatric residents consisting of four sessions focusing on the relationship between dysfunctional signal transduction and gene transcription and disease pathogenesis. I mentored the residents presenting articles and lectured in four sessions.

Current

1997- Unit Head, Unit 2 Immunology, Molecular & Cellular Foundations of Medicine, Albert Einstein College of Medicine,
I am responsible for coordinating the structure and teaching of this Unit that is presented yearly to first year medical students (~180 students) that consists of 20 lectures, 3 Clinical Correlation Lectures, 1 Pathophysiology of Disease Conference and 3 Clinical Correlation Conferences. This includes organizing the lecture schedule, syllabus and exam and recruiting and monitoring the lecturers.

1997- Course Lecturer, Molecular & Cellular Foundations of Medicine, Unit 2- Differential Gene Expression and the Immune System, Albert Einstein College of Medicine.

I give 9 lectures, 3 Clinical Correlation Lectures, 1 Pathophysiology of Disease Conference and 2 review sessions during the indicated time period in this course that is presented yearly to first year medical students (~180 students).

1997- Small Group Facilitator, Molecular & Cellular Foundations of Medicine, Unit 2-Differential Gene Expression and the Immune System, Albert Einstein College of Medicine,
I lead three small group sessions (~ 22 students) during the indicated time in this course, which is presented yearly to first year medical students

1999- Lecturer, Albert Einstein College of Medicine Introductory Medical Genetics, Immunology and Biochemistry Course,
I give two-three lectures that provide an overview of immunology to incoming Einstein students taking this introductory course (~60 students).

1990- Course Lecturer, Graduate Immunology, Sue Golding Graduate School (alternate years).
I give two- to three lectures during the indicated time period in this course, which is presented every other year to graduate students (~20-30 students)

1995- Course Lecturer, Graduate Virology, Sue Golding Graduate School (alternate years).
I give two lectures during the indicated time period in this course, which is presented every other year to graduate students (~20 students).

1996- Course Lecturer, Mechanisms of Disease Course, Sue Golding Graduate School (alternate years).
I give one lecture during the indicated time period in this course, which is presented every other year to graduate students (~20 students).

1996- Course Lecturer, Microbial Pathogenesis Course, Sue Golding Graduate School (alternate years).
I give two lectures during the indicated time period in this course, which is presented every other year to graduate students

TRAINEES

Postdoctoral

Trainee	**Training period**	**Degree/Year**	**Institution**	**Research Project**	**Subsequent Position**
Deiter Koerholz	1987-1990	M.D. 1985	Univ. of Dusseldorf, Germany	Signal transduction in B cell Ig secretion	Assist. Prof., Dept. of Oncology, Univ. of Dusseldorf, Germany
Paloma Martinez	1989-1991	M.D. 1980	Univ. of Madrid,	Production of human monoclonal	Private practice

			Spain	antibodies to HIV	
Gloria Wiseman	1989-1991	M.D. 1981	Columbia University, New York	T cell response to HIV	Director, Dept. Neonatology, Holy Cross Hospital
Mirjam Kusse	1990-1991	M.D. 1990	Leiden University, Netherlands	Cytotoxic T cell response to HIV	Private practice
Massimo Pettoello-Mantovani	1990-2003	M.D. 1984	Univ. of Milan, Italy	Pathogens as cofactors in HIV infection	Professor of Pediatrics, Univ. of Milan, Italy
Tobias Kollmann	1995-1996	Ph.D., 1995	SGGS, Albert Einstein	Study HIV infection using SCID-hu mice	Asst. Professor of Pediatrics, U. of Washington
Sergey Yurasov	1995-1999	M.D.	Moscow State Med. Institute	The effect of HIV on hematopoiesis	Assistant Professor of Clinical Investigation. Nussenzweig Lab, Rockefeller University
Roberto Posada	1998-2000	M.D.	Universidad Javeriana, Colombia	Role of Ets-1 in HIV replication	Assistant Professor of Pediatrics, Mt. Sinai Medical School
Mahesh Patel	2002-	M.D.	Ohio State Medical School	In vivo efficacy of HIV specific CTLs	Assistant Professor of Medicine, Albert Einstein
Laiping Xie	2003-2005	Ph.D.	Tongji Medical University	Regulation of the HIV-1 LTR	Research Assoc., Lab of Dr. John Hardin, Dept. of Medicine, Albert Einstein
Hongwei Wang	2003-2005	Ph.D.	Second Military University	Mouse model for NeuroAIDS	Research Assoc., Dept. of Cell Bio., Albert Einstein
Aviva	2004-2010	Ph.D.	Hebrew	CTL control of	Assistant Professor,

Joseph			University	HIV-1	University of Mass., Worcester
Shelly Toussi	2005-2007	M.D.	Dartmouth Medical School	Novel HIV therapeutics	Assistant Professor of Pediatrics, Weil Cornell Medical School
Xiaohua Qi	2008-2012	Ph.D.	Tokyo Medical and Dental University	Role of PD-1 in HIV infection	Research Associate, Wash. University, St. Louis
Cong Zhang	2009-2013	Ph.D.	Albert Einstein	Proteomic analysis of HIV CNS disease	Biotech, Boston, Mass.
Alex Ray	2017-	Ph.D.	Albert Einstein	Anti-HIV CAR-T cells and NK cells	
Moriah Rabin	2019-	M.D.	Albert Einstein	Optimizing anti-leukemia CAR-T cells	
Hang Su	2020-	Ph.D.	Ph.D., University of Nebraska	Enhancing HIV-specific T cells respones	

Predoctoral

Trainee	Training period	Degree/Year	Institution	Research Project	Subsequent Position
Tobias Kollmann	1989-1995	Ph.D., 1995	Einstein	Mouse models chimeric for the human immune system	Assistant Prof., U. of Washington
Pam Smarnworawong	1992-1993	M.S., 1993	Einstein	Effect of HIV on human thymic maturation	Left graduate school
Chris Gibbons	1996-1997 (Howard Hughes)	M.D., 1999	AECOM	Mucosal transmission of HIV	Neurology Resident, Johns Hopkins
Nikos Katopodis	1995-1997	M.S., 1997	Einstein	Effect of HIV regulatory genes on hematopoiesis	Biotechnology company
Jessie Browning	1996-2000	M.S., 1997 Ph.D., 2000	Einstein	Transgenic mouse models of HIV	On Sabbatical
Emilie-Jeanne Wang	1998-2002	M.S., 1999 Ph. D., 2002	Einstein	Transgenic mouse models of HIV CNS infection	Post-doc, Dr. Beg's lab at Columbia
Devorah Moskowitz	2001-2005	M.S., 2002	Einstein	HIV cellular reservoirs	Transferred to California
Jing-lin Sun	2001-2007	M.S., 2003 Ph.D., 2007	Einstein	HIV CNS infection	NYU Dental School
Kaori Sango	2005-2010	M.S., 2005 Ph.D., 2010	Einstein	HIV CTL responses	Postdoctoral Research Scientist, Boston University Medical School

Jaime Berg-Hyman	2006-2007 (Howard Hughes)	M.D., 2008	Einstein	PD-1 and CTL function	Mt. Sinai Medical School
Jennifer Bennit	2007	M.D., 2007	Einstein	CTLs from stem cells	Medicine Resident, UC Davis
Candice Church	2009-2014	M.S., 2010 Ph.D., 2014	Einstein	TCR structure-function analysis	Research Scientist, University of Washington
Tynisha Thomas	2010-2015	M.S., 2011 Ph.D., 2015	Einstein	In vivo analysis of CTL function	Principal Scientist, Janssen Pharmaceutical Companies
Kieran Seay	2011-2015	M.S., 2012 Ph.D., 2015	Einstein	Transgenic HIV mouse model development	M.D. Albert Einstein College of Medicine, 2020
Jennifer Lee	2012	M.D., 2012	Einstein	HIV and Autoimmunity	Pediatrics Resident, UC Davis
Ariola Bardhi	2013-2018	M.S., 2014 Ph.D., 2018	Einstein	HIV vaccine evaluation	Consultant, ClearView Healthcare Partners
Nina Flerin	2013-2018	M.S., 2014 Ph.D., 2018	Einstein	HIV reservoir eradication	Post doc, VIB - KU Leuven Centre for Cancer Biology, Belgium
Mengyin Li	2015-2019	M.S., 2016 Ph.D., 2019	Einstein	Development of T cell immunostimulatory therapeutics	Biotech Analyst, Evercore

Current and Past Faculty Trainer on

HIV, AIDS and Opportunistic Infections Training Grant (Dr. V. Prasad, P.I.)
Infectious Disease Training Grant (Dr. A. Casadevall, P.I.)
Immunooncology Training Grant (Dr. S. Nathanson, P.I.)
Molecular Immunology Training Program (Dr. A. Casadevall, P.I.)
Geographic Medicine and Emerging Infections Training Grant (Dr. Herb Tanowitz, P.I.)

COMMITTEE APPOINTMENTS:

AECOM Committees

Previous

1991-1994 Member, Investigative Committee on Ethical Scientific Performance
1993-2006 Member, Dean's Letter Writing Committee
1994-1996 Member, Einstein Admissions Committee
1995-2005 Member, Biohazard Committee
1996-1998 Member, Molecular Medicine Committee
1996-2001 Member, Pre-Clinical Committee of the Division of Education
1997-2013 Member, Patent Committee
1998-2000 Member, Committee on Appointments and Promotions to Professor
1998-2000 Member, SGGS Academic Affairs Committee
2000-2002 Chair, SGGS Academic Affairs Committee
2000-2001 Member, Center for Genetic and Translational Medicine Program Committee
2001-2003 Co-Chair, Pre-Clinical Committee of the Division of Education
2001-2011 Member, Einstein Awards Committee
2003-2004 Member, Board Committee on Student Affairs
2003-2009 Co-Chair, Scientific Foundations of Medicine Committee of the Division of Education
2004-2009 Member, Division of Education Committee
2005-2006 Member, LCME Subcommittee on Academic Environment
2007-2008 Co-Chair, Einstein Recruitment Coordinating Committee
2010-2013 Member, Faculty Advisor Board

Current

1996- Co-Chair, Einstein Admissions Committee
2005- Chair, Biohazard Committee
2005- Member, Committee on Clinical and Translational Research
2006- Member, Institute for Clinical and Translational Research Scientific Advisory and Review Committee
2006- Member, Microbiology & Immunology Recruitment Steering Committee
2007- Chair, Einstein Scientific Resources Committee
2007- Member, Dean's Research Planning Meeting Committee
2007- Member, Dean's Executive Committee
2007- Member, Dean's Agenda Meeting Committee

2011- Member, Senate Council
2013- Member, Senate Advisory Committee for Renewal of the Dean's Appointment

Montefiore Medical Center Committees

2003-2004 Member, Children's Health Services Strategy Task Force
2003-2004 Member, Children's Hospital at Montefiore Specialties Workgroup
2003-2004 Co-Chair, CHAM Specialty and Faculty Needs Subcommittee

Department of Pediatrics Committees

Previous

1994-1995 Member, Search Committee for Director of Division of Neonatology
1995-1996 Member, Pediatric Interdivisional Research Program Committee
1996-2003 Member, Pediatric Research Committee
1998-1999 Member, Search Committee for Director of Division Infectious Diseases
2002-2003 Member, Residency Recruitment Committee
2002-2005 Member, Pediatric Executive Committee
2003-2005 Chair, Search Committee for Director of Respiratory Medicine Section (successfully recruited Dr. Raanan Arens)
2003-2005 Member, Faculty Advancement Committee
2003-2005 Member, Committee on Career Development and Incentives

Current

1999 - Member, Senior Rank Promotions Sub-Committee
1999 - Member, Appointments and Promotions Committee of Professors

RESEARCH GRANT SUPPORT:

Previous

1989-1990 Irvington Institute New Initiative
Principal Investigator: Harris Goldstein, M.D.
Title: Examination of the effects of HIV proteins on the development and function of the human immune system utilizing the SCID-hu mouse model of the human immune system.
Total direct costs: $15,000

1990-1991 Irvington Institute New Initiative
Principal Investigator: Harris Goldstein, M.D.
Title: Delineation of the intracellular and nuclear events that lead to positive and negative regulation of induced Ig production.
Total direct costs: $15,000

1990-1993 National Institutes of Health, NIAID, P30 AI27741-09
New Investigator: Harris Goldstein, M. D.
Principal Investigator: Arye Rubinstein, M.D.
Title: Molecular and immune interdiction of AIDS

Total direct costs: $195,000

1993-1995 PAF/AmFAR
Principal Investigator: Harris Goldstein, M.D.
Title: Effect on HIV-1 thymic T cell maturation
Total direct costs: $130,000

1993-1995 Department of Pediatrics, Internal Grant
Principal Investigator: Harris Goldstein, M.D.
Title: Effect on HIV-1 thymic T cell maturation
Total direct costs: $32,000

1994-1999 National Institutes of Health, NIAID, P30 AI27741-09
Core Director, SCID-hu PCR Core: Harris Goldstein, M. D.
Principal Investigator: Arye Rubinstein, M.D.
Title: Molecular and immune interdiction of AIDS
Total direct costs: $1,924,451

1994-1998 National Institutes of Health, NIAID, RO1 AI36664
Principal Investigator: Harris Goldstein, M.D.
Title: In vivo model to study the pathogenesis of HIV infection.
Total direct costs: $499,728

1994-1998 National Institutes of Health, NIHLB, RO1 HL53754
Principle Investigator: Harris Goldstein, M.D.
Title: Effect of HIV on hematopoiesis studied with SCID-hu mice.
Total direct costs: $615,507

1997-2000 National Institutes of Health, NIAID, R01 AI41399-01
Principal Investigator: David Strayer, M.D., Ph.D.
Title: Sfv gene delivery to inhibit HIV and SIV integrase

. Subcontract to Jefferson Medical College,
Principal Investigator: Harris Goldstein, M.D.
Total direct costs: $85,735

1997-1999 Peptor, LTD
Principal Investigator: Harris Goldstein, M.D.
Title: Inhibition of HIV infection by soluble peptides.
Total direct costs: $239,788

1997-2000 National Institutes of Health, NIAID, R21 AI42621
Principal Investigator: Harris Goldstein, M.D.
Title: Transgenic mouse models for HIV infection.
Total direct costs: $300,000

1998-1999 Schering-Plough Research Institute
Principal Investigator: Harris Goldstein, M.D.,
Title: The in vivo anti-HIV effect of IL-10 using the thy/liv-SCID-hu mouse model
Total direct costs: $85,400

1999-2005 National Institutes of Health, NINSD, RO1 NS39201
Principal Investigator: Harris Goldstein, M.D.
Title: Transgenic mice: A model for studying HIV CNS Infection
Total direct costs: $953,016

2000-2005 National Institutes of Health, NIAID, PO1 AI48244-01

Principal Investigator: David Strayer, M.D., Ph.D.
Program Title: SV40-based combination genetic therapies for HIV/SIV
Program Project #2 Title: Analysis of SV40-based gene therapy using SCID-hu mice
Principal Investigator: Harris Goldstein, M.D., 30% effort
Total direct and indirect costs for Program Project #2: $976,395

2001-2007 National Institutes of Health, NIH RO1 AI41399 (Strayer)
Principal Investigator: David Strayer, M.D., Ph.D.
Title: SFv gene delivery to inhibit HIV and SIV integrase
Subcontract to Harris Goldstein, M.D.
Total direct and indirect costs for Subcontract: $919,282

2001-2007 National Institutes of Health, NIH RO1 AI48466
Principal Investigator: Harris Goldstein, M.D.
Title: Transgenic/SCID-hu mouse model to study HIV therapeutics
Total direct costs: $1,125,000

2005-2008 National Institutes of Health, NIDDK, PO1DK052956
Principal Investigator: Norman Fleischer, M.D..
Program Title: Preservation & Replacement of Beta Cells in Type 1 Diabetes
Program Project #2 Title: Viral Immunoregulatory Genes in Beta Cells to Treat Diabetes
Principal Investigator: Harris Goldstein, M.D.,
Total direct and indirect costs for Program Project #2: $968,280

2006-2008 Lehman Brothers Foundation
Principal Investigator: Harris Goldstein, M.D.
Title: Development of a Novel Antibody Therapy to Eliminate HIV-infected Cells
Total direct costs $100,000

2007-2011 National Institutes of Health, NIH RO1 AI67136
Principal Investigator: Harris Goldstein, M.D.
Title: Mechanisms of In Vivo Protection From HIV Infection
Total direct and indirect costs $1,666,000

2008-2010 National Institutes of Health, NIH R21 AI076178
Principal Investigator: Harris Goldstein
Title: Structural analysis, mutation and therapeutic use of TCRs from HIV-specific CTLs
Total direct and indirect costs: $456,000

2009-2011 National Institutes of Health, P20DA026149
Pilot Proteomics Center on Drug Abuse HIV/AIDS
Principal Investigator: Ruth Angeletti
Project #1 Title: " Analysis of in vivo effects of HIV, LPS and buprenorphine on the brain proteome"
Project Leader: Harris Goldstein
Total direct and indirect costs: $498,000

2008-2014 National Institutes of Health, NIH P30 AI051519
Principal Investigator: Harris Goldstein, M.D.

Title: Center for AIDS Research
Total direct and indirect costs $9,481,154

2010-2017 National Institute of Health, R01AI065309
Principal Investigator: Betsy Herold
Title: Impact of HSV-2 on female genital tract mucosal immunity & HIV infection
Role: Co-Investigator

2011-2016 National Institute of Health, R01DK094327
Principal Investigator: Teresa DiLorenzo
Title: T cell tolerance by DEC-205-mediated islet antigen delivery to dendritic cells
Role: Co-Investigator

2012-2016 National Institute of Health, R01DK064315
Principal Investigator: Teresa DiLorenzo
Title: Antigens recognized by CD8 T cells in type 1 diabetes
Role: Co-Investigator

2012-2018 National Institute of Health, R01DA033788
Principal Investigator: Harris Goldstein
Title: Systems biology analysis of in vivo impact of substance abuse on HIV infection.
Total direct and indirect costs $2,735,095

2013-2018 National Institute of Health, R01DA036171
Principal Investigator: Jonathan Karn
Title: Drugs of abuse and the epigenetic and signaling pathways controlling HIV latency
Subcontract to Harris Goldstein: Total direct and indirect costs- $834,505
Role: Co-Principal Investigator

Current

2017-2022 National Institute of Health, 1P30AI124414-01A1
Principal Investigator: Harris Goldstein
Title: Einstein-Rockefeller-CUNY Center for AIDS Research

2019-2024 National Institute of Health 1R01AI145024-01
Principal Investigators: Harris Goldstein/Steven Almo
Title: Novel biologics designed to mobilize HIV-specific CTL for sustained HIV remission

2019-2024 National Institute of Health 1R01DA048609-01
Principal Investigators: Joan Berman/Harris Goldstein
Mechanisms of opioid-mediated HIV neuropathogenesis

2017-2022 National Institute of Health, R01 DA044584-01
Principal Investigators: Joan Berman/Harris Goldstein

Title: Impact of illicit drugs, HIV, and ART on neuroinflammation and BBB disruption

2016-2021 National Institute of Health, UM1AI26617
Principal Investigators: Douglas Nixon
Title: BELIEVE: Bench to Bed Enhanced Lymphoctye Infusions to Engineer Viral Eradication
Role: IRF (Initial Research Foci) Project Leader

INVITED TALKS AND LECTURES (SELECTED EXTERNAL)

11/1/90 Pediatric Research Seminar in the Schneider Children's Hospital, New Hyde Park, NY- "*Divergent Effect of Kinases in B cell Differentiation*."

3/17/94 NIH Pathogenesis HIV/SIV Workshop, Bethesda, MD- "*A novel adaptation of the SCID-hu model for studies of HIV in gut.*"

10/24/94 Aaron Diamond AIDS Research Center, New York, NY- "*SCID-hu mice to study the pathogenesis of HIV infection.*"

11/21/94 Panelist, New York Academy of Medicine Conference, New York, NY- "*Careers in Medicine and Science*."

1/23/95 NIH Collaborative Mucosal Immunology Group Meeting, Keystone, CO- "*Study of HIV pathogenesis using SCID-hu mice implanted with different human tissues*."

5/3/95 Pediatric Grand Rounds, Bronx-Lebanon Hospital Center- Bronx, NY, "*Immunopathogenesis of HIV infection*."

5/11/95 Seminar, Department of Pathology, The University of Connecticut Health Center, Farmington, CT- "*SCID-hu mice: An in vivo model for studying the pathophysiology of HIV infection and the regulation of the human immune system."*

7/12/95 NIAID SPIRAT/NCDDG-HIV Meeting, Novel HIV therapies: from discovery to clinical proof of concept, Bethesda, MD- "*Thy-BM-SCID-hu mice: An animal model for studying HIV gene therapy*."

9/18/96 NIAID/NHLBI Meeting, Hematological consequences of HIV infection of marrow cells and cytokine effects on hematopoiesis in AIDS animal models, Bethesda, MD- "*Effect of HIV on hematopoiesis studied with SCID-hu mice*."

3/13/97 Schering-Plough Research Institute, Kenilworth, NJ- "*Effect of IL-10 on HIV infection studied in thy/liv-SCID-hu mice*."

5/7/97 NIH/NIAID 9th National Cooperative Vaccine Discovery Group Meeting, Bethesda, MD- "*Mouse models for studying HIV therapy and vaccines*."

2/10/98 Massachusetts General Hospital, Infectious Disease Unit, Boston, MA- "*Mouse models for studying HIV Infection*."

4/21/98 University of Alberta, Department of Medical Microbiology and Immunology, Alberta, Canada- "*Novel mouse models for studying HIV Infection*."

1/13/99 AIDS Pathogenesis Meeting, Keystone symposia on Molecular and Cellular Biology, Keystone, CO- "*Additive anti-viral effects of targeted cytotoxic therapy when combined with highly active antiretroviral therapy (HAART) for the treatment of HIV-1 infection in SCID-hu mice*."

5/4/99 NIH/NIAID New Concepts in HIV Vaccine Development, Bethesda, MD- "*Transgenic mouse models for studying HIV infection*."

11/4/99 Department of Pathology, UMDNJ, Newark, NJ- "*Development and application of novel chimeric and transgenic mouse models to investigate HIV-1 immunopathogenesis and to examine the efficacy of new HIV-1 treatment modalities*."

7/27/00 First International Workshop on Human/Mouse SCID Mouse Models, Rome, Italy- "*Investigation of HIV-1 therapeutics using novel SCID-hu mouse models*."

12/21/00 NYU Immunology Club, NYU School of Medicine, New York, NY- "*Development of transgenic mouse models for studying HIV-1 replication, immunity and therapeutics*."

11/16/01 Department of Medicine, Hematology Seminar, NYU School of Medicine, New York, NY- "*Mouse model for HIV infection, pathogenesis and therapeutics – effect on hematopoiesis*."

3/8/05 Keynote Speaker, March of Dimes Nelson Rosenthal Convocation, New York, NY- "*Using vaccines to harness the immune system*."

9/24/07 Co-chair, New Humanized Rodent Model Workshop, DAIDS/NIAID/NIH, Bethesda MD- "*Transgenic mouse models for HIV infection*."

12/5/07 Center for AIDS Research Seminar, NYU School of Medicine, New York, NY- "*A proactive molecular genetic approach to reprogram the immune system to target and eliminate HIV-1-infected cells*."

11/14/08 198th Meeting of the Interurban Clinical Club, Weill Medical College of Cornell University, New York, NY- "*Genetic reprogramming of t cells and b cells to generate potent HIV-specific immunity*."

8/3/09 American Academy of Pediatrics NeoPREP: An Intensive Review and Update of Neonatal-Perinatal Medicine, Atlanta, GA- "*Review of immunology and congenital immunodeficiencies*."

1/18-21/10 University of KwaZulu Natal, Durban, South Africa- "*An intensive course in immunology (14 lectures)*."

8/26-29/10 Case CFAR Annual Conference: Molecular Basis for HIV Pathogenesis, Case Western Reserve University, Cleveland, OH- "*Genetic reprogramming of T cells and B cells to generate HIV-specific immunity*."

9/19/11 Update on therapeutic monoclonal antibodies session, Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) meeting, Chicago, IL- "*Role of antibodies in the prevention and treatment of HIV infection*."

1/17/12 Ragon Institute of MGH, MIT and Harvard Symposium, Boston, MA- "*Designer immunity: molecular engineering of hiv-specific immune responses.*"

INVITED TALKS AND LECTURES (SELECTED INTERNAL)

4/10/91 Pediatrics Grand Rounds at Montefiore Medical Center- "*Adverse reactions to foods by the immune system*."

4/11/91 Pediatrics Grand Rounds at Jacobi Hospital- "Adverse reactions to foods mediated by the immune system."

8/5/91 Rheumatology Grand Rounds at Montefiore Medical Center- "Cytokines."

12/5/91 Pediatrics Grand Rounds at Montefiore Medical Center- "Recent advances in the immunology, pathophysiology, and infectivity of HIV-1."

12/6/91 Pediatrics Grand Rounds at Jacobi Hospital- "Recent advances in the immunology, pathophysiology, and infectivity of HIV-1."

3/10/93 Pediatrics Grand Rounds at Jacobi Hospital- "Food allergies in the 90's."

8/11/93 Pediatrics Grand Rounds at Jacobi Hospital- "Immunodeficiency syndromes for the pediatrician."

2/9/94 Pediatrics Grand Rounds at Jacobi Hospital- “Immunopathogenesis of HIV infection.”

7/13/94 Pediatrics Grand Rounds at Montefiore Medical Center- “New perspectives on the immunopathogenesis of HIV infection.”

7/13/94 Pediatrics Grand Rounds at Jacobi Hospital- “New perspectives on the immunopathogenesis of HIV infection.”

8/14/96 Pediatrics Grand Rounds at Montefiore Medical Center- “Food allergies.”

10/16/96 Dermatology Grand Rounds AECOM- “The immunological basis for food allergies.”

2/7/97 AECOM Infectious Disease Seminar- “SCID-hu mouse model, an *in vivo* system to study anti-retroviral drug therapy for HIV infection.”

7/9/97 Pediatric Grand Rounds at Montefiore Medical Center- “Big Mac attacks-food allergies.”

3/27/98 Pediatrics Grand Rounds at Jacobi Hospital- “Immunological basis for food allergies.”

7/8/98 Pediatric Grand Rounds at Montefiore Medical Center- “The role of cytokine receptors in HIV infection.”

7/9/99 Pediatrics Grand Rounds at Montifiore Medical Center- “Immunological basis for food allergies.”

7/13/01 Rheumatology Grand Rounds- “Cytokines and their receptors.”

10/15/01 Pediatrics Grand Rounds at Jacobi Hospital- “Development of a mouse model for studying HIV infection.”

7/12/02 Rheumatology Grand Rounds- “Cytokines and their receptors.”

8/7/02 Pediatrics Grand Rounds at Montefiore Medical Center- “Establishment of mouse systems for investigating HIV-1 infection using transgenic technology.”

1/30/03 Pediatrics Faculty Research Seminar- “Use of transgenic mouse technology to establish mouse systems for investigating HIV-1 infection.”

9/5/03 Rheumatology Grand Rounds- “TH1 and TH2 T helper cell cytokine production and regulation.”

1/29/04 Pediatrics Faculty Research Seminar- “Development of a transgenic mouse model to study the behavior of reservoirs of HIV-1 infected cells and the efficacy of therapeutic interventions to eliminate them.”

7/16/04 Rheumatology Grand Rounds- “Generation and functional effects of TH1 and TH2 T helper cells.”

10/14/04 Pediatrics Faculty Research Seminar- “Mouse models to study HIV infection.”

10/28/04 Einstein Division of Biological Sciences Internal Faculty Seminar- “Transgenic mouse models for studying the pathogenesis and treatment of HIV infection.”

12/01/05 Pediatrics Faculty Research Seminar- “Mouse models for studying the pathogenesis and therapy for HIV infection."

02/02/07 Rheumatology Grand Rounds- “Cytokines.”

PATENTS ISSUED

1. United States Patent #6,054,116, issued April 25, 2000, Chimeric mouse for human and mouse immune systems. Inventors: **H. Goldstein** and T. R. Kollman.

2. United States Patent #6,563,014, issued May 13, 2003, Self-contained system for sustained viral replication. Inventors: **H. Goldstein** and J. Browning Paul.

ORIGINAL COMMUNICATIONS IN REVIEWED JOURNALS:

1. **H. Goldstein**, N. I. Klein and A. Rubinstein: Construction of a tracheal pouch in rabbits. *Lung* 1983;161:207-11.

2. **H. Goldstein**, D. J. Volkman, J. L. Ambrus and A. S. Fauci. Characterization of a T4+/Leu8+ T cell clone that directly helps B cell Ig production by secreting B cell differentiation factor*. Journal of Immunology* 1985;135:339-443.

3. T. Nakagawa, N. Nakagawa, **H. Goldstein**, D. J. Volkman and A. S. Fauci. Demonstration that human B cells respond differently to interleukin 2 and B cell differentiation factor based on their stages of maturation. *Journal of Immunology* 1986;137:3175-3182.

4. **H. Goldstein**, J. L. Ambrus, Jr., J. H. Grove, J. B. Margolick and A. S. Fauci. Functional and biochemical characterization of B cell differentiation factor (BCDF) produced by an HTLV-I transformed human T cell clone and

demonstration of specific binding of the factor to a BCDF responsive cell line. *Cellular Immunology* 1987;108:343-355.

5. J. B. Margolick, D. J. Volkman, **H. Goldstein** and A. S. Fauci. Production of phagocytosis-inducing factor and expression of 4B4 antigen by cloned human T cells before and after transformation with HTLV-1. *Cellular Immunology* 1988;111:196-203.

6. **H. Goldstein**, D. Koerholz, L. Chesky, X-D. Fan and J. L. Ambrus, Jr. Divergent activities of protein kinases in IL-6-induced differentiation of a human B cell line. *Journal of Immunology* 1990;145:952-961.

7. T. R. Kollmann, A. Rubinstein, W. D. Lyman, R. Soeiro and **H. Goldstein**. Characterization of fetal IgG subclass antibodies directed against HIV-1*. AIDS Research and Human Retroviruses* 1991;7:839-845.

8. G. Wiseman, A. Rubinstein, P. Martinez, S. Lambert, Y. Devash and **H. Goldstein.** Cellular and antibody responses directed against the HIV-1 principal neutralizing determinant in HIV-1-infected children. *AIDS Research and Human Retroviruses* 1991;7:847-854.

9. **H. Goldstein**, M. Pettoello-Mantovani, T. R. Kollmann, T. A. Calvelli and A. Rubinstein. Inhibition of HIV-1 infection by alkylureas. *AIDS* 1991;5:1447-1451.

10. P. Salgame, J. S. Abrams, C. Clayberger, **H. Goldstein**, J. Convit, R. L. Modlin and B. R. Bloom. Differing lymphokine profiles of functional subsets of human CD4 and CD8 T cell clones. *Science* 1991;254:279-282.

11. M. Pettoello-Mantovani, A. Casadevall, T. R. Kollmann, A. Rubinstein and **H. Goldstein**. Enhancement of HIV-1 infection by the capsular polysaccharide of *Cryptococcus Neoformans. Lancet* 1992;339:21-23.

12. T. R. Kollmann, X. Zhuang, A. Rubinstein and **H. Goldstein**. Design of polymerase chain reaction primers for the selective amplification of HIV-1 RNA in the presence of HIV-1 DNA. *AIDS* 1992:6:547-552.

13. U. K. Schubart, J. Xu, W. Fan, G. Cheng, **H. Goldstein**, G. Alpini, D. Shafritz, J. A. Amat, M. Farooq, W. T. Norton, T. A. Owen, J. B. Lian and G. Stein. Widespread, stage-specific expression of phosphoprotein p19 in mammalian cells. *Differentiation* 1992;51:21-32.

14. T. R. Kollmann, M. M. Goldstein and **H. Goldstein**. The concurrent maturation of mouse and human thymocytes in human fetal thymus implanted in NIH-Beige-Nude-xid mice is associated with the reconstitution of the murine immune system. *Journal of Experimental Medicine* 1993;177:821-834.

15. A. Rubinstein, **H. Goldstein**, T. Calvelli, Y. Devash, R. Rubinstein, R. Soiero and W. Lyman. Maternofetal transmission of Human Immunodeficiency Virus-1: the role of antibodies to the V3 primary neutralizing domain. *Pediatric Research* 1992;33:S76-S79.

16. M. A. Suarez, Jr., B. Blanco, L. P. Brion, M. Schulman, T. A. Calvelli, J. Youchah, Y. Devash, A. Rubinstein and **H. Goldstein**. Rapid test for the detection of human immunodeficiency virus antibodies in cord blood. *Journal of Pediatrics* 1993;123:259-261.

17. M. Pettoello-Mantovani, A. Casadevall and **H. Goldstein**. The presence of cryptococcal capsular polysaccharide increases the sensitivity of HIV-1 coculture in children. *Annals of the New York Academy of Sciences* 1993;693:281-283.

18. S. J. Cryz, Jr., **H. Goldstein**, E. Furer, J. U. Que, T. Hasler, B. Althaus and A. Rubinstein. Prospects for prevention of vertical transmission of human immunodeficiency virus by immunization. *Annals of the New York Academy of Sciences* 1993;693:2194-201.

19. A. Rubinstein, **H. Goldstein**, M. Pettoello-Mantovani and S. J. Cryz, Jr. Preliminary results of V3 loop synthetic peptide-primary neutralizing domain conjugate phase 1 vaccine trial. *AIDS Research and Human Retroviruses* 1993;10:S149-S153.

20. **H. Goldstein** and A. Kim. IL-2, IL-4 and IL-6 induce immunoglobulin secretion and phosphorylation of common membrane proteins in a factor responsive human B cell line. *Journal of Immunology* 1993;151:6701-6711.

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22. T. R. Kollmann, A. Kim, X. Zhuang, M. Hachamovitch and **H. Goldstein**. Multilineage hematopoiesis and peripheral reconstitution of SCID mice with human lymphoid and myeloid cells following transplantation with human fetal bone marrow. *Proc. Natl. Acad. Sci. USA* 1994;91:8032-8036.

23. M. Pettoello-Mantovani, A. Casadevall, P. Smarnworawong and **H. Goldstein**. HIV-1 infectivity is increased in vitro by the presence of the capsular polysaccharide of *Cryptococcus neoformans* and *Haemophilus influenzae*. *AIDS Research and Human Retroviruses* 1994;10:1079-1087.

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25. T. R. Kollmann, A. Kim, M. Pettoello-Mantovani, M. Hachamovitch, A. Rubinstein, M. M. Goldstein and **H. Goldstein.** Divergent effects of chronic HIV-1 infection on human thymocyte maturation in SCID-hu mice. *Journal of Immunology* 1995;154:907-921.

26. A. Rubinstein, **H. Goldstein**, M. Pettoello-Mantovani, Y. Mizrachi, B R. Bloom, E. Furer, B. Althaus, J. U. Que, T. Hasler and S. J. Cryz, Jr. Safety and immunogenicity of a V3 loop synthetic peptide conjugated to purified protein derivative in HIV-seronegative volunteers. *AIDS* 1995;9:243-251.

27. **H. Goldstein**. Modified SCID-hu mice provide an improved model for HIV-1 infection. *Journal. of NIH Research* 1995;7:58-60.

28. T. R. Kollmann, M. Pettoello-Mantovani, N. Katopodis, M. Hachamovitch, A. Rubinstein, A. Kim and **H. Goldstein**. Inhibition of acute *in vivo* HIV infection by human IL-10 treatment of SCID mice implanted with human fetal thymus and liver. *Proc. Natl. Acad. Sci. USA* 1996;93:3126-3131.

29. **H. Goldstein**, M. Pettoello-Mantovani, N. Katopodis, A. Kim, S. Yurasov and. T. R. Kollmann. SCID-hu mice: a model for studying disseminated HIV infection. *Seminars in Immunol.* 1996;8:223-231.

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32. M. Pettoello-Mantovani, T. R. Kollmann, C. Raker, A. Kim, S. Yurasov, R. Tudor, H. Wiltshire and **H. Goldstein**. Saquinavir-mediated inhibition of human immunodeficiency virus infection in thy/liv-SCID-hu mice: An *in vivo* model for evaluating the effect of drug therapy on HIV-1 infection in lymphoid tissues. *Antimicrobial Agents & Chemotherapy* 1997;41:1880-1887..

33. C. Gibbons, M. Pettoello-Mantovani, T. R. Kollmann, A. Kim and **H. Goldstein**. Thy/liv-SCID-hu mice implanted with human intestine, lung and skin: An *in vivo* model for investigation of mucosal transmission of HIV. *AIDS Res. Hum. Retro.* 1997;13:1453-1460.

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35. M. Pettoello-Mantovani, T. R. Kollmann, N. F. Katopodis, C. Raker, A. Kim, S. Yurasov, H. Wiltshire and **H. Goldstein**. Thy/Liv-SCID-Hu Mice: A system for investigating the in vivo effects of multi-drug therapy on plasma viremia and HIV replication in lymphoid tissues. *J. Infect. Dis.,*1998:177:337-346.

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41. D. S. Strayer, R. J. Pomerantz, M. Rosenzweig, M. Bouhamdam, S. yurasov, R. P. Johnson and **H. Goldstein.** Efficient Gene Transfer to Hematopoietic Progenitor Cells using SV40-derived Vectors. *Gene Therapy* 2000;7:886-95.

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43. **H. Goldstein**, M. Pettoello-Mantovani, C. M. Anderson, P. Cordelier, R. J. Pomerantz and D. S. Strayer. Gene Therapy Delivered *In Vivo* Using an SV40-derived Vector Inhibits the Development of *In Vivo* HIV-1Infection of Thy/liv-SCID-hu Mice. *J. Infectious Diseases* 2002;185:1425-30.

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