

## **JENNIFER E. ADAIR, Ph.D.**

### **PERSONAL DATA:**

Place of Birth: Warren, OH, United States

Address: Fred Hutchinson Cancer Research Center  
P.O. Box 19024, D1-100  
1100 Fairview Avenue N.  
Seattle, WA 98109-1024

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### **EDUCATION:**

2005 Ph.D., Genetics and Cell Biology (Summa cum laude)  
(Dr. Raymond Reeves, Ph.D.)  
Washington State University  
Pullman, Washington

2000 B.S., Chemistry (Cum laude)  
Youngstown State University  
Youngstown, Ohio

### **POSTGRADUATE TRAINING:**

2012-2014 Associate in Clinical Research  
Clinical Research Division  
Fred Hutch Cancer Research Center  
Seattle, Washington

2008-2012 Research Associate  
Clinical Research Division  
Fred Hutch Cancer Research Center  
Seattle, Washington

2006-2008 Intramural Research Training Awardee  
Molecular Carcinogenesis  
(Dr. Kenneth Olden, Ph.D.)  
National Institute of Environmental Health Sciences,  
Research Triangle Park, North Carolina

**FACULTY POSITIONS HELD:**

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|--------------|--|
| 2014-Present | Assistant Member<br>Clinical Research Division, Stem Cell and Gene Therapy Program<br>Fred Hutch<br>Seattle, WA  |
| 2013-Present | Research Assistant Professor<br>Division of Medical Oncology, Department of Medicine<br>University of Washington School of Medicine<br>Seattle, Washington |

**HOSPITAL POSITIONS HELD:**

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|--------------|---|
| 2013-Present | Institutional Biosafety Committee Member<br>Seattle Cancer Care Alliance<br>Seattle, WA                                   |
| 2009-2016    | Clinical Research Staff<br>Department of Neuro-Oncology<br>University of Washington Medical Center<br>Seattle, Washington |
| 2008-Present | Clinical Research Coordinator<br>Clinical Research Division<br>Fred Hutch Cancer Research Center<br>Seattle, Washington   |

**HONORS:**

- |              |   |
|--------------|---|
| 2017-2018    | Guest Editor, <i>Human Gene Therapy</i> Special Edition on CAR T Cells<br>Co-editor, Dr. Cameron Turtle<br>Publish date May, 2018 |
| 2017-Present | Editorial Board, <i>Human Gene Therapy</i>  |
| 2016-Present | Member, Hematologic and Immunologic Diseases Committee, American Society of Gene and Cell Therapy                                 |

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|--------------|--|
| 2015         | Outstanding New Investigator Award<br>American Society of Gene and Cell Therapy  |
| 2014-Present | Grant Reviewer, Fanconi Anemia Research Fund (FARF)  |
| 2014-2016    | Appointed Chair, New Investigator Committee, American Society of Gene and Cell Therapy (ASGCT)                         |
| 2012         | Young Investigator Award<br>International Society for Cell Therapy   |
| 2011-2015    | Co-Chair, Genetic Vaccines Committee, American Society of Gene and Cell Therapy (ASGCT)                                |
| 2011-2017    | Appointed Member, New Investigator Committee, American Society of Gene and Cell Therapy (ASGCT)                        |
| 2011         | Abstract Excellence Award<br>American Society of Hematology  |
| 2010         | Travel Grant Award<br>Fanconi Anemia Research Fund   |
| 2010-2011    | Travel Grant Award<br>American Society of Gene and Cell Therapy  |
| 2010         | Excellence in Research Award<br>American Society of Gene and Cell Therapy  |
| 2005         | Finalist, Woman of the Year<br>Washington State University   |
| 2005         | Graduate and Professional Student Association Senator of the Year<br>Washington State University                       |
| 2004         | First Place, Dr. William R. Wiley Graduate and Professional Studies Research Exposition<br>Washington State University |
| 2004         | Graduate Student of the Year<br>School of Molecular Biosciences,<br>Washington State University                        |
| 2001-2005    | Philip and Neva Abelson Graduate Fellowship<br>Washington State University   |
| 2001-2005    | Protein Biotechnology Training Grant Program Graduate Trainee<br>National Institutes of Health                         |

2001-2003	Golding Family Graduate Fellowship in Life Sciences Washington State University
1998-2000	Chemistry Undergraduate Research Fellowship Youngstown State University
1995-1999	Undergraduate Study Scholarship Vulcraft, Inc.

**BOARD CERTIFICATION:**

Not Applicable

**CURRENT LICENSE(S) TO PRACTICE:**

Not Applicable

**PROFESSIONAL ORGANIZATIONS:**

2014-Present	Member, International Society for Stem Cell Research (ISSCR)
2012-Present	Member, International Society for Cellular Therapy (ISCT)
2011-Present	Member, American Society of Gene and Cell Therapy (ASGCT)
2010-Present	Member, International Fanconi Anemia Gene Therapy Working Group
2010-Present	Scientist Supporter, Fanconi Anemia Research Fund (FARF)
2009-Present	Member, Association for Women in Science

**TEACHING RESPONSIBILITIES:**

**Trainees:**

**Sara Kubek, PhD**  
**Reza Shahbazi, PhD**

**Courses**

2003-2004	Advanced Biochemistry Laboratory, Undergraduate Washington State University Pullman, Washington
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*Lectured on standard biochemical applications; assisted students with a variety of standard biochemistry protocols; administered, graded and*

*recorded laboratory practical exams and quizzes; evaluated notebooks for proper and detailed record-keeping.*

**Invited Local Lectures**

- 11/2017 *Challenges for Gene Modified Cells/iPSCs*  
International Society for Cellular Therapies/American Society for Bone Marrow Transplant Cell Therapy Training Course  
Seattle, WA
- 07/2017 *Bringing Blood Stem Cell Gene Therapy to Everyone in Need*  
Fred Hutch Summer Undergraduate Research Program Seminar Series  
Seattle, WA
- 02/2017 *Making Stem Cell Gene Therapy for Everyone*  
Fred Hutch Therapeutic Products Program Investigator Update Series  
Seattle, WA
- 03/2016 *Gene Therapy: Using DNA to Treat Diseases*  
Fred Hutch Science for Life Community Lecture  
Seattle, WA
- 02/2016 *Development of a Portable Platform for Distribution of Hematopoietic Cell Gene Therapy*  
defeatHIV Community Advisory Board Webinar (YouTube Channel)  
Seattle, WA
- 01/2016 *Crossing the I's – IBC involved research that has moved from bench to IACUC to IRB*  
Northwest Association for Biomedical Research IBC Conference  
University of Washington  
Seattle, WA
- 10/2015 *Development of a Portable Platform for Distribution of Blood Stem Cell Gene Therapy*  
defeatHIV Community Action Board Meeting  
Seattle, WA
- 09/2015 *New Brain Tumor Treatment Builds on Lessons Learned*  
Legacy Partners in Research Luncheon  
Fred Hutchinson Cancer Research Center  
Seattle, WA
- 09/2015 *Bringing Gene Modified Blood Cell Therapeutics to Patients Everywhere*  
Bill and Melinda Gates Foundation  
Seattle, WA

- 02/2014      *Investigating Methods to Improve Bacterial Transformation*  
Teaching Laboratory for High School Students, FHCRC  
Seattle, Washington
- 11/2012      *Arming Hematopoietic Stem Cells for the Fight Against Poor Prognosis*  
*Glioblastoma*  
University of Washington, Neurology Grand Rounds  
Seattle, Washington
- 06/2012      *Clinical Application of Gene Therapy in Treating Genetic and Malignant*  
*Diseases*  
International Society for Cellular Therapy FHCRC Showcase  
Seattle, Washington
- 05/2012      *Gene-modified Hematopoietic Stem Cell Transplantation for*  
*Glioblastoma Patients*  
Mixed Chimerism Meeting,  
Fred Hutchinson Cancer Research Center  
Seattle, Washington
- 04/2012      *Gene-modified Hematopoietic Stem Cell Transplantation for*  
*Glioblastoma Patients*  
Washington State University  
Pullman, Washington

**Invited National Lectures**

- 01/2016      *Applying Basic Translation in Blood Cell Gene Therapy*  
Harvard Medical School, Dana Farber Cancer Institute, Boston  
Children's Hospital, Invited Lecture  
Boston, MA
- 11/2015      *Applying Basic Translation in Blood Cell Gene Therapy*  
University of Massachusetts Medical School, Invited Lecture  
Worcester, MA
- 05/2015      *Found in Translation: Informed Development of Next-Generation Blood*  
*Stem Cell Gene Therapy*  
Outstanding New Investigator Symposium  
American Society for Gene and Stem Cell Therapy Annual Meeting  
New Orleans, Louisiana
- 02/2015      *Prodigy-based RBC depletion in a Phase I clinical trial of hematopoietic*  
*stem cell gene therapy for Fanconi anemia*  
American Society for Blood and Bone Marrow Transplantation Annual  
Meeting

- 03/2014 San Diego, California  
*American Society of Gene and Cell Therapy Standardized Pathways Conference: Developing Strategies for Leveraging Pre-clinical Data*  
Silver Spring, Maryland
- 11/2013 *Retrovirus-mediated MGMT(P140K) Hematopoietic Stem Cell Gene Therapy in Adult Cancer Patients*  
Cincinnati Children's Hospital, Cincinnati, OH
- 04/2013 *Gene Therapy: Charting a Future Course*  
National Institutes of Health  
Bethesda, Maryland
- 05/2009 *Translational Research in Gene Therapy*  
National Institutes of Health  
Bethesda, Maryland

#### **Invited International Lectures**

- 09/2018 *Quantitative Analysis of Clonality in Hematopoiesis*  
International Workshop on Models and Concepts of Stem Cell Organization  
University of Cambridge, United Kingdom
- 11/2017 *FA Gene Therapy in Seattle: Three Patients Treated*  
International Fanconi Anemia Gene Therapy Working Group  
University of Heidelberg, Germany
- 10/2016 *Preliminary Results of a Phase I Clinical Trial for Fanconi anemia Gene Therapy*  
International Fanconi Anemia Gene Therapy Working Group  
Madrid, Spain
- 09/2015 *Gene Therapy for Fanconi Anemia in Seattle: Two Patients Treated*  
International Fanconi Anemia Gene Therapy Working Group  
London, United Kingdom
- 10/2014 *Gene Therapy for Fanconi Anemia: First Treated Patient in Seattle*  
International Fanconi Anemia Gene Therapy Working Group  
Milan, Italy
- 10/2014 *Quantitative Tracking of Hematopoietic Stem Cells*  
Stem Cell Network  
Ottawa, Canada
- 07/2013 *MGMT<sup>P140K</sup> Gene Therapy in the Clinic: Extending Patient Survival with Potential for Improvement*  
Medizinische Hochschule Hannover, Germany

11/2009                      *Overview of Gene Therapy for Fanconi Anemia*  
Hospital de Clinicas,  
Federal University of Paraná, Curitiba, Brazil

### **Laboratory and Other Research Supervisory and Training Responsibilities**

2017-Present                      Summer Medical Student Internship  
**Tyler Luonuansuu** (Wright State University Medical School, OH)  
Fred Hutchinson Cancer Research Center  
Seattle, WA

*Host, supervise and train second year medical student intern in standard molecular biology protocols used in the laboratory with the goal of mentoring the student through an independent research project. The student presents this research as an oral abstract at the end of the internship and as a research poster at Wright State University during the school year. Continue mentoring the student through the remainder of their medical degree.*

2017-Present                      Summer Undergraduate Research Intern  
**Hannah Cassidy** (California Polytechnic University, CA)  
Fred Hutchinson Cancer Research Center  
Seattle, WA

*Host, supervise and train summer undergraduate student intern in standard molecular biology protocols used in the laboratory with the goal of mentoring the student through an independent research project which the student presents as an oral abstract at the close of the summer program. Continue mentoring the student through the remainder of their undergraduate degree.*

2016-Present                      Summer Undergraduate Research Program (SURP)  
**Johnson Ung** (University of Redlands, CA)  
Fred Hutchinson Cancer Research Center  
Seattle, WA

*Host, supervise and train summer undergraduate student intern in standard molecular biology protocols used in the laboratory with the goal of mentoring the student through an independent research project which the student presents as a poster at the close of the summer program. Continue mentoring the student through the remainder of their undergraduate degree.*

2012-2013                      Master's Student Thesis Research –



**Astrid Kritzinger (2013)**

Fred Hutchinson Cancer Research Center  
Seattle, Washington

*Supervise and mentor international student from Universität Ulm (Ulm University) conducting a Master's Thesis research project in the laboratory of Dr. Hans-Peter Kiem. Evaluate research progress and laboratory record-keeping, and actively participate in thesis corrections and final grading.*

2011-Present

ICEH Summer Internships for High School Graduates -

**Amelia Mockett** (Summer 2011)

**Walter Ceder** (Summer 2012)

Fred Hutchinson Cancer Research Center  
Seattle, Washington

*Supervise and train summer undergraduate students in standard molecular biology protocols used in the laboratory with the goal of mentoring the student through an independent research project. Evaluate student performance and laboratory record-keeping.*

2009-2012

Undergraduate Clinical Research,

Opportunities for Pre-Medicine Students -

**Garrick Horn** (Spring 2010-Summer 2011; currently second year medical student at Boston University)

**Valerie Jin Young** (Fall 2011-2012)

Fred Hutchinson Cancer Research Center  
Seattle, Washington

*Supervised and directed pre-medicine undergraduate volunteers in clinical research studies conducted in the laboratory with the goal of mentoring the students through a clinical research-associated project. Evaluated student performance and laboratory record-keeping.*

2007

Summer of Discovery

National Institute of Environmental Health Sciences,  
Research Triangle Park, North Carolina

*Assisted summer undergraduate students enrolled in the program in standard molecular biology protocols used in the laboratory with the goal of providing the students background knowledge in techniques to be used in their independent research projects. Lectured on methods of cell culture, DNA, RNA and protein collection and analysis.*

2006-2008

Graduate Mentor -

**Brian Rogers, M.S.** (Currently fourth year medical student at Howard University)

National Institute of Environmental Health Sciences,  
Research Triangle Park, North Carolina

*Supervised and directed a Master's level graduate student from the North Carolina Central University in preclinical and molecular biology studies with the goal of mentoring the student through a Master's thesis research project. Mentored the student in research planning and execution, evaluated student performance and thesis completion.*

2002

Graduate Molecular Biology  
Washington State University  
Pullman, Washington

*Assisted rotating graduate students in standard molecular biology protocols used in the lab. Evaluated student performance and record-keeping for recommendation.*

**EDITORIAL RESPONSIBILITIES:**

2017-Present                      Editorial Board, *Human Gene Therapy*

**SPECIAL NATIONAL RESPONSIBILITIES:**

None.

**SPECIAL LOCAL RESPONSIBILITIES:**

2013-Present                      Institutional Biosafety Committee  
Seattle Cancer Care Alliance  
Seattle, Washington

2009-Present                      Clinical Trial Coordinators  
Fred Hutchinson Cancer Research Center  
Seattle, Washington

2009-2016                          Neurology and Neurological Surgery Tumor Board  
Seattle Cancer Care Alliance,  
University of Washington  
Seattle, Washington

**RESEARCH FUNDING:**

**CURRENT**

- 01/01/2018-12/31/2019      Evergreen Beyond Pilot      (P.I. Adair, J)  
FHCRC      \$200,000  
A universal, non-viral platform for gene delivery  
*Role: PI*
- 03/01/2018-02/28/2019      Nohla Collaboration      (P.I. Adair, J)  
Nohla Therapeutics      \$113,636  
Defining the therapeutically applicable cord blood system stem cell  
population in NLA101  
*Role: PI*
- 04/01/2015-03/31/2020      U19 HL129902      (P.I.: Cannon, P., Kiem, H.P.)  
University of Southern California (NIH/NIAID)  
Next Generation HSC Gene Therapy for HIV Control and Eradication  
Project 4: Stem Cell Expansion and Gene Editing in a Non-Human  
Primate Model of HIV/AIDS  
*Role: Co-Investigator*
- 03/06/2017-02/28/2018      Rocket      (P.I.: Kiem, H.P.)  
Rocket Pharamceuticals \$107,000  
Gene Transfer for Patients with Fanconi Anemia Complementation  
Group A (Fanca)  
*Role: Clinical*
- 03/01/2017-02/28/2018      Evergreen Fund      (P.I. Kiem, H.P.)  
FHCRC      \$200,000  
Development of Clinical Protocols for the Sort-Purification and Gene-  
Modification of Nonhuman Primate and Human Hematopoietic Stem  
Cells  
*Role: Co-Investigator*
- 01/17/2017-12/31/2020      R01 HL136135      (P.I.'s: Kiem, H.P. and Scharenber, A.M.)  
NIH/NHLBI      \$499,360  
Novel Gene Editing Approaches for Hemoglobinopathies  
*Role: Co-Investigator*
- 11/10/2017-08/30/2022      R01 AI35953-01      (P.I. Kiem, H.P.)  
NIH/NIAID      \$624,067  
Targeting A Novel Hematopoietic Stem Cell Population In Non-Human  
Primates For Effective And Sustained Gene Therapy  
*Role: Co-Investigator*

**COMPLETED**

- 12/23/2015 – 12/22/2016 SRA 161201 ROCKET (P.I.: Adair, J.E.)  
Rocket Pharmaceuticals \$281,103  
Development and Validation of a Globally Portable Platform for  
Hematopoietic Stem/Progenitor Cell Gene Therapy  
*Role: PI*
- 08/07/2012-07/31/2017 P01 AI 097100 (P.I.s: Rawlings, D.J. and Kiem, H.-P.)  
NIH/NIAID \$270,332  
Foamy Viral Gene Therapy for X-linked Severe Combined Immune  
Deficiency  
*Role: Core D, Core Leader (Vector Integration and Tracking)*
- 08/01/2014-05/31/2017 CRB-SSS-14-003854 (P.I. Kiem, H.-P.)  
Gene Therapy Resource Program \$210,000  
Gene Therapy for Patients with Fanconi Anemia Complementation  
Group A (FANCA)  
*Role: Co-Investigator*
- 08/01/2013-04/30/2017 R01 HL115128 (P.I.s: Kiem, H.-P. and Rafii, S.)  
NIH/NHLBI \$835,271  
Evaluation of Pluripotent Stem Cell-Derived Blood Cells in Nonhuman  
Primate Model  
*Role: Co-Investigator*
- 07/08/2011-06/30/2016 U19 AI 096111 (P.I.: Jerome, K.R. and Kiem, H.-P.)  
NIH/NIAID  
Targeted Modification of Host and Proviral DNA to Treat Latent HIV  
Infection  
  
Sub-Project: 3 (Project Leader: Kiem, H.-P.) \$207,138  
CCR5 Targeting to Control HIV/SHIV in Nonhuman Primates  
*Role: Sub-Investigator*  
  
Sub-Project: Core B (Project Leader: Kiem, H.-P.) \$503,271  
Transplantation Core  
*Role: UW Sub-contract P.I.*
- 07/24/2006-09/30/2013 R01 HL 084345 (P.I.: Kiem, H.-P.)  
NIH \$503,743  
Gene Therapy for Fanconi Anemia  
*Role: Study Coordinator*

08/01/2006-07/31/2014      R01 CA 114218      (P.I.: Kiem, H.-P.)  
NIH/NCI      \$269,791  
Hematopoietic Chemoprotection in Glioblastoma Patients  
*Role: Study Coordinator*

**PENDING**

2017 Individual Biomedical Research Award (P.I.: Adair, J)  
The Hartwell Foundation      \$300,000  
Engineering a Simplified Universal Delivery Method for Gene Therapy  
*Role: PI*

**BIBLIOGRAPHY: (CURRENT SCOPUS H-INDEX = 16)**

**(a) Refereed Journals (First/Last Author Designation)**

1. Treff N.R., Dement G.A., **Adair J.E.**, Britt R.L., Nie R., Shima J.E., Taylor W.E., Reeves R. (2004) Human kit ligand promoter is positively regulated by HMGA1 in breast and ovarian cancer cells. *Oncogene*. **23**:8557-8562.
2. **Adair J.E.**, Kwon Y.H., Dement G.A., Smerdon M.S., Reeves R. (2005) Inhibition of nucleotide excision repair by high mobility group protein HMGA1. *J. Biol. Chem.* **280**:32184-32192. (Impact factor = 4.1)
3. Maloney S.C., **Adair J.E.**, Smerdon M.J., Reeves R. (2007) Gene-specific nucleotide excision repair is impaired in human cells expressing elevated levels of high mobility group A1 nonhistone proteins. *DNA Repair (Amst.)*. **6**:1371-9.
4. **Adair J.E.**, Maloney S.C., Dement G.A., Wertzler K.J., Smerdon M.J., Reeves R. (2007) High Mobility Group A1 (HMGA1) proteins inhibit expression of nucleotide excision repair factor, XPA. *Cancer Research*. **67**:6044-52. (Impact factor = 9.3)
5. **Adair J.E.**, Stober V., Sobhany M., Zhuo L., Roberts J.D., Negishi M., Kimata K., Garantziotis S. (2009) inter-alpha-trypsin inhibitor promotes bronchial epithelial repair after injury through vitronectin binding. *J. Biol. Chem.* **284**:16922-30. (Impact factor = 4.1)
6. Matsuoka T., **Adair J.E.**, Lih F.B., His L.C., Rubino M., Eling T.E., Tomer K.B., Yashiro M., Hirakawa K., Olden K., Roberts J.D. (2010) Elevated dietary linoleic acid increases gastric carcinoma cell invasion and metastasis in mice. *Br. J. Can.* **103**:1182-1191.
7. Becker P.S., Taylor J.A., Trobridge G.D., Zhao X., Beard B.C., Chien S., **Adair J.**, Kohn D.B., Wagner J.E., Shimamura A., Kiem H.P. (2010) Preclinical correction of human Fanconi Anemia complementation group A bone marrow cells using a safety-modified lentiviral vector. *Gene Ther.* **17**:1244-52.
8. Beard B.C., Trobridge G.D., Ironside C., McCune J.S., **Adair J.E.**, Kiem H.P. (2010) Efficient and stable MGMT-mediated selection of long-term repopulating stem cells in nonhuman primates. *J. Clin. Invest.* **120**:2345-54.

9. Zhong B., Trobridge G.D., Zhang X., Watts K.L., Ramakrishnan A., Wohlfahrt M.E., **Adair J.E.**, Kiem, H.P. (2010) Efficient generation of nonhuman primate induced pluripotent stem cells. *Stem Cells Dev.* **20**:795-807.
10. Zhong B., Watts K.L., Gori J.L., Wohlfahrt M.E., Enssle J., **Adair J.E.**, Kiem H.P. (2011) Safeguarding nonhuman primate iPS cells with suicide genes. *Mol. Ther.* **19**:1667-75.
11. **Adair J.E.**, Beard B.C., Trobridge G.D., Neff T., Rockhill J.K., Silbergeld D.L., Mrugala M., Kiem H.P. (2012) Extended survival of glioblastoma patients after chemoprotective HSC gene therapy. *Sci. Transl. Med.* **4**:133-133ra57. (Impact factor = 16.8)
12. **Adair J.E.**, Zhao X., Chien S., Fang M., Wohlfahrt M.E., Trobridge G.D., Taylor J., Beard B.C., Kiem H.P., Becker P.S. (2012) Cyclophosphamide promotes engraftment of gene-modified cells in a mouse model of Fanconi anemia without causing cytogenetic abnormalities. *J. Mol. Med.*, **90**:1283-94. (Impact factor = 4.7)
13. Gori J.L., Chandrasekaran D., Kowalski J., **Adair J.E.**, Beard B.C., D'Souza S.L., Kiem H.P. (2012) Efficient generation, purification, and expansion of CD34(+) hematopoietic progenitor cells from nonhuman primate-induced pluripotent stem cells. *Blood.* **120**:e35-44.
14. Burtner C.R., Beard B.C., Kennedy D.R., Wohlfahrt M.E., **Adair J.E.**, Trobridge G.D., Scharenberg A.M., Torgerson T.R., Rawlings D.J., Felsberg P.J., Kiem H.P. (2014) Intravenous injection of foamy virus vector to correct canine SCID-X1, *Blood.* **123**:3578-84.
15. Wang C.X., Sather B.D., Wang, X., **Adair J.E.**, Khan I., Singh S., Lang S., Adams A., Curinga G., Kiem H.-P., Miao C.H., Rawlings D.J., Torbett B.E. (2014) Rapamycin relieves lentiviral vector transduction resistance in human and mouse hematopoietic stem cells. *Blood.* **124**:913-23.
16. **Adair J.E.**, Johnston S.K., Beard B.C., Guyman L.A., Baldock A.L., Bridge C.A., Hawkins-Daarud A., Gori J.L., Born D.E., Gonzalez-Cuyar L.F., Rockhill J.K., Silbergeld D.L., Mrugala M.M., Rockne R.C., Storer B.E., Kiem H.P., Swanson K.R., (2014) Gene therapy enhances chemotherapy tolerance and efficacy in glioblastoma. *J. Clin. Invest.* **124**:4082-92. (Impact factor = 12.8)
17. Beard, B.C., **Adair, J.E.**, Trobridge, G.D., Kiem, H.P.(2014) High-throughput mapping of vector integration sites in gene therapy studies. *Methods Mol. Biol.* **1185**:321-44.
18. Kiem, H.P., Arumugam, P.I., Burtner, C.R., Fox, C., Beard, B.C., Dexheimer, P., **Adair, J.E.**, Malik, P. (2014) Pigtailed macaques as a model to study long-term safety of lentivirus vector-mediated gene therapy for hemoglobinopathies. *Mol. Ther. – Methods in Clin. Dev.* **1**:14055.
19. Gori J.L., Butler J.M., Chan, Y.-Y., Poulos M.G., Ginsberg M., Nolan D.J., Elemento O., Wood, B., **Adair J.E.**, Rafii S., Kiem H.P. (2015) Vascular niche induction of hematopoietic progenitors from pluripotent stem cells. *J. Clin. Invest.*, **125**: 1243-54.

20. Olszko, M. **Adair, J.E.**, Linde, I., Rae, D., Trobridge, P., Hocum, J., Rawlings, D., Kiem, H.P., Trobridge, G. (2015) Foamy viral vector integration sties in SCID-repopulating cells after MGMTP140K-mediated in vivo selection. *Gene Ther.* **22**:591-5.
21. Burtner, C.R., Chandrasekaran, D., Santos, E., Beard, B., **Adair, J.E.**, Hamlin, D.K., Wilbur, S.D., Sandmaier, B.M., Kiem, H.P., (2015) Astatine-conjugated monoclonal CD45 antibody-based nonmyeloablative conditioning for stem cell gene therapy. *Hum. Gene Ther.* **26**:399-406.
22. Karponi, G., Psatha, P., Lederer, C.W., **Adair, J.E.**, Zervou, F., Zogas, N., Kleanthous, M., Tsatalas, T., Anagnostopoulos, A., Sadelain, M., Riviere, I., Stamatoyannopoulos, G., Yannaki, E. (2015) Plerixafor+G-CSF-mobilized CD34+ cells represent an optimal graft source for thalassemia gene therapy. *Blood.* **126**:616-9.
23. Hocum, J.D., Battrell, L.R., Maynard, R., **Adair, J.E.**, Beard, B.C., Rawlings, D.J., Kiem, H.-P., Miller, D.G., Trobridge, G.D. (2015) VISA – Vector Integration Site Analysis Server: A web-based server to rapidly identify retroviral integration sites from next generation sequencing. *BMC Bioinformatics.* **16**:212.
24. Peterson, C.W., Haworth, K.G., Burke, B.P., Polacino, P., Norman, K., **Adair, J.E.**, Hu, S.-L., Bartlett, J.S., Symonds, G.P., Kiem, H.-P. (2015) Multilineage polyclonal engraftment of Cal-1 gene-modified cells and in vivo selection after SHIV infection in a nonhuman primate model of AIDS. *Mol. Ther. Methods Clin. Dev.* **3**:16007.
25. **Adair, J.E.**<sup>#</sup>, Waters, T., Haworth, K., Trobridge, G.D., Hocum, J., Heimfeld, S., Kiem, H.-P. (2016) Semi-automated Closed System Manufacturing of Lentivirus Gene Modified Hematopoietic Stem Cells for Gene Therapy. *Nat. Comm.*, **7**:13713. (Impact factor = 12.1)  
<sup>#</sup>corresponding author.
26. Gori, J.L., Butler, J.M., Ginsberg, M., Nolan, D., **Adair, J.E.**, Rafii, S., and Kiem, H.P. (2016) Endothelial cells promote expansion of long-term engrafting marrow hematopoietic stem and progenitor cells in primates. *Stem Cell Translat. Med.* **6**:864-876.
27. Singh, S., Khan, I., Khim, S., Seymour, B., Sommer, K., Wielgosz, M., Norgaard, Z., Kiem, H.-P., **Adair, J.E.**, Liggitt, D., Nienhuis, A., Rawlings, D.J. (2016) Safe and effective gene therapy for murine Wiskott-Aldrich Syndrome using an insulated lentiviral vector. *Mol. Ther. Methods Clin. Dev.* **4**:1-16.
28. Haworth, K.G., Ironside, C., Norgaard, Z.K., Obenza, W.M., **Adair, J.E.**, Kiem, H.-P. In vivo murine-matured human CD3+ cells as a preclinical model for T cell-based immunotherapies. (2017) *Mol. Ther. Methods Clin. Dev.* **6**:17-30.
29. **Radtke, S.**<sup>†</sup>, **Adair, J.E.**<sup>†</sup>, Giese, M.A., Chan, Y.-Y., Norgaard, Z.K., Enstrom, M., Haworth, K.G., Schefter, L.E., Kiem, H.-P. A distinct hematopoietic stem/progenitor cell population for rapid multilineage engraftment. (2017) *Sci. Transl. Med.*, **9**(414), Epub ahead of print. <sup>†</sup>**co-first author.** (Impact factor = 16.8)

**(b) Book Chapters**

1. **Adair J.E.**, Beard B.C., Kiem H.P. Chapter: MGMT stem cell selection and protection: large animal preclinical and clinical studies. *Gene Therapy of Cancer, 3<sup>rd</sup> edition*. (Lattime and Gerson) 2013.
2. **Adair J.E.**, Trobridge G.D., Kiem H.P. Chapter 8: Genetic manipulation of hematopoietic stem cells. *Thomas' Hematopoietic Cell Transplantation, 5<sup>th</sup> edition*, (Appelbaum, Foreman, Negrin, Blume) 2013.
3. Beard, B.C., **Adair, J.E.**, Trobridge, G.D., Kiem, H.P. Chapter: High throughput genomic mapping of vector integration sites in gene therapy studies. *Hematopoietic Stem Cell Protocols, 3<sup>rd</sup> edition*, Springer Protocols, *Methods Mol. Biol.* **1185**:321-44, 2014. Also cited above in 17.
4. **Adair, J.E.**, Kubek, S.P., Kiem, H.-P. Chapter: Hematopoietic stem cell approaches to cancer. *Gene Therapy, 1<sup>st</sup> edition, Hematology/Oncology Clinics of North America* (Bauer and Kohn). **31**:897-912, 2017.

**(c) Published books, videos, software, etc.**

**(d) Other publications**

1. Reeves R. and **Adair J.E.** (2005) Role of high mobility group (HMG) chromatin proteins in DNA repair. *DNA Repair (Amst.)* **4**:926-938.
2. Mrugala M., **Adair J.E.**, Kiem H.P. (2010) Temozolomide: expanding its role in brain cancer. *Drugs of Today.* **46**:833-46.
3. Tolar J., **Adair J.E.**, Antoniou M., Bartholomae C.C., Becker P.S., Blazar B.R., Bueren J., Carroll T., Cavazzana-Calvo M., Clapp D.W., Dalgeish R., Galy A., Gaspar H.B., Hanenberg H., Von Kalle C., Kiem H.P., Lindeman D., Naldini L., Navarro S., Renella R., Rio P., Sevilla J., Schmidt M., Verhoeyen E., Wagner J.E., Williams D.A., Thrasher A.J. (2011) Stem cell gene therapy for fanconi anemia: report from the 1<sup>st</sup> international fanconi anemia gene therapy working group meeting. *Mol Ther.* **19**:1193-8.
4. Watts K.L., **Adair J.**, Kiem H.P. (2011) Hematopoietic stem cell expansion and gene therapy. *Cytotherapy.* **13**:1164-71.
5. Mrugala, M.M., **Adair, J.E.**, Kiem, H.P. (2012) Outside the box therapy for glioblastoma. *The Cancer J.* **18**:51-8.
6. Mrugala M.M., **Adair J.E.**, Kiem H.P. (2012) Chemoprotection in glioblastoma: reality or a dream? *CNS Oncol.* **1**:11-14.
7. O'Reilly M., Federoff H., Fong Y., Kohn D.B., Patterson A.P., Ahmed N., Asokan A., Boye S.E., Crystal R.G., De Oliveira S., Gargiulo L., Harper S.Q., Ikeda Y., Jambou R.C., Montgomery M., Prograis L., Rosenthal E., Serman D., Vandenberghe L.H., Zoloth L., Abedi M., **Adair J.E.**, Adusumilli P., Goins W., Gray J., Monahan P., Popplewell L., Sena-Esteves M., Tannous B.A.,



Weber T., Wierda W., Corrigan-Curay J. (2014) Gene Therapy: Charting a Future Course, Summary of a National Institutes of Health Workshop, April 12, 2013. *Hu. Gene Ther.*, **25**:488-497.

8. **Adair, J.E.** and Weitzman, M.D. (2014) Editorial: Applying the speed-dating model and other approaches to foster future leaders for the American Society of Gene and Cell Therapy. *Mol. Ther.*, **22**:1397-1398.
9. **Adair, J.E.**, Sevilla, J., Diaz de Heredia, C., Becker, P.S., Kiem, H.-P., Bueren, J. (2016) Invited Review: Lessons learned from two decades of clinical trial experience in gene therapy for Fanconi anemia. *Curr. Gene Ther.* 2017 January 19 [Epub ahead of print].

**(e) Manuscripts submitted or in preparation**

1. Haworth, K.G., Schefter, L.E., Norgaard, Z.K., Ironside, C., **Adair, J.E.**, Kiem, H.-P. HIV infection results in clonal expansions containing integrations with pathogenesis-related biological pathways. *J. Clin. Invest.* [Awaiting final decision].
2. **Adair, J.E.**, Norgaard, Z.K., Schefter, L.E., Haworth, K.G., Humphrys, D., Enstrom, M., Porter, S., Tam, K., Porteus, M., Kiem, H.-P. Comparative analysis of in vivo blood cell clone tracking methods reveals pitfalls in measuring hematopoiesis. *Blood Advances*. [Invited revision in progress].
3. Humbert, O., Chan, F., Rajawat, Y.S., Torgerson, T.R., Burtner, C.R., Hubbard, N.W., Humphrys, D., Norgaard, Z.K., O'Donnell, P., **Adair, J.E.**, Trobridge, G.D., Scharenberg, A.M., Felsburg, P.J., Rawlings, D.J., Kiem, H.-P. Rapid immune reconstitution of SCID-X1 canines after G-CSF/AMD3100 mobilization and in vivo gene therapy. *Blood Advances*. [Invited revision in progress].
4. **Adair, J.E.**, Chandrasekaran, D., Sghia-Hughes, G., Haworth, K.G., Woolfrey, A., Burroughs, L.M., Choi, G.Y., Becker, P.S., Kiem, H.-P. Novel lineage depletion preserves autologous blood stem cells for gene therapy of Fanconi anemia complementation group A. *Blood* [Submitted].
5. Haworth, K.G., Ironside, C., Weitz, S.E., Atkins, M., Schwartz, J., **Adair, J.E.**, Kiem, H.-P. Engraftment and in vivo selection after minimal conditioning promotes engraftment of reduced cell numbers in Fanconi Anemia. *Blood Advances*. [Submitted].
6. Ngom, M., Imren, S., Maetzig, T., **Adair, J.E.**, Knapp, D., Chagrioui, J., Fares, I., Bordeleau, M.-E., Sauvageau, G., Leboulch, P., Eaves, C., Humphries, K. UM171 enhances lentiviral gene transfer and recovery of primitive human hematopoietic cells. *Molecular Therapy*. [Submitted].
7. Shahbazi, R., Humbert, O., Haworth, K.G., Sghia-Hughes, G., Kiem, H.-P., **Adair, J.E.** # Targeted homology directed repair in blood stem and progenitor cells with highly potent CRISPR nanoformulations. [In preparation]. # corresponding author.

8. Sghia-Hughes, G., Burtner, C.R., Lee, A., Humphrys, D., Kiem, H.-P., **Adair, J.E.**<sup>#</sup> Maintenance of leukocyte telomere length after transplant and chemoselection in macaques with polyclonal gene modified cell engraftment. [*In preparation*]. <sup>#</sup>corresponding author.
9. Kubek, S.P., Haworth, K.G., Beard, B.C., Kiem, H.-P., **Adair, J.E.**<sup>#</sup> Novel regulation of MGMP140K gene modified CD34<sup>+</sup> cells improves engraftment without compromising chemoprotection or in vivo selection. [*In preparation*]. <sup>#</sup>corresponding author.
10. Haworth, K.G., Radtke, S., Ramirez, M.A., Ironside, C., Schefter, L.E., Norgaard, Z.K., **Adair, J.E.**, Kiem, H.-P. In vivo selection of engineered human CD34<sup>+</sup> HSPCs using a safe harbor for targeted integration. [*In preparation*].

## Abstracts

### *Selected Abstracts*

1. **Adair, J.E.**, Dement, G.A., Reeves, R. (2005) High Mobility Group A1 (HMGA1) proteins influence excision repair of damaged DNA both *in vivo* and *in vitro*. *American Association for Cancer Research 96<sup>th</sup> Annual Meeting*. Anaheim, CA.
2. **Adair, J.E.**, Kwon, Y.H., Smerdon, M.S., Reeves, R. (2005) Influence of high mobility group proteins on nucleotide excision repair. *Washington State University Center for Integrated Biotechnology 3<sup>rd</sup> Annual Retreat*. Pullman, WA.
3. **Adair, J.E.**, Kwon, Y.H., Smerdon, M.S., Reeves, R. (2005) Negative influence of high mobility group A1 (HMGA1) proteins on nucleotide excision repair. *Dr. William R. Wiley Exposition of Graduate and Professional Studies*. Pullman, WA.
4. **Adair, J.E.**, Huang, Z. (2005) Separation of high-abundance serum proteins using VortopHor-based free-flow electrophoresis. *Protasis Corporation Annual Meeting Seminar*. Corvallis, OR.
5. **Adair, J.E.**, George, M.D., Rubino, M., Roberts, J.D., Olden K. (2006) Development of an *in vivo* model for analysis of factors involved in breast cancer metastasis. *Laboratory of Molecular Carcinogenesis Annual Retreat*. Wilmington, NC.
6. Becker, P.S., **Adair, J.E.**, Zhao, X., Chien, S., Wohlfahrt, M.E., Trobridge, G.D., Beard, B.C., Kiem, H.P. (2010) Towards defining an optimal conditioning regimen for stem cell gene therapy in Fanconi Anemia. *American Soc. Hematol. Annual Meeting*, Orlando, FL.
7. Mrugala, M., **Adair, J.E.**, Beard, B.C., Rockhill, J.K., Silbergeld, D.L., Rostomily, R., Becker, P.S., Chamberlain, M., Spence, A. and Kiem, H.P. (2010) Efficient engraftment of MGMP140K gene-modified CD34<sup>+</sup> cells following nonmyeloablative BCNU conditioning in patients with glioblastoma. *European Assoc. Neuro-oncology*, Netherlands.
8. **Adair, J.E.**, Zhao, X., Becker, P.S., and Kiem, H.P. (2011) Optimizing engraftment of *FANCA* gene-modified bone marrow cells in a mouse model of Fanconi anemia. *American Soc. Of Gene Cell Ther. 14<sup>th</sup> Annual Meeting*, Seattle, WA.

9. **Adair, J.E.**, Beard, B.C., Trobridge, G.D., Bushman, F., Mrugala, M.M., Kiem, H.P. (2011) Integration-mediated activation of PRDM16 and HMGA2 in multiple clones without adverse hematopoietic consequences following transplant of autologous MGMTP140K gene-modified CD34<sup>+</sup> cells. *American Society of Hematology: 52rd Annual Meeting and Exposition*, San Diego, CA.
10. Mrugala, M.M., **Adair, J.E.**, Beard, B.C., Silbergeld, D.S., Rockhill, J.K., Kiem, H.P. (2011) How to overcome dose-limiting toxicity in treating glioblastoma patients with O6-benzylguanine. *Society for NeuroOncology. 16<sup>th</sup> Annual Scientific Meeting*, Orange County, CA.
11. **Adair, J.E.**, Beard, B.C., Trobridge, G.D., and Kiem, H.P. (2012) Transcriptional activation of PRDM16 and HMGA2 and associated retroviral integration in multiple clones without adverse hematopoietic consequences following transplant of autologous MGMTP140K gene-modified CD34<sup>+</sup> cells. *American Soc. Of Gene Cell Ther. 15<sup>th</sup> Annual Meeting*, Philadelphia, PA.
12. Johnston, S.K., Bridge, C.A., Rockne, R.C., Guyman, L., Baldock, A., Mrugala, M.M., **Adair, J.E.**, Kiem, H.P., Swanson, K.R. (2012) Enabling the detection of treatment benefit in novel therapeutic studies through patient-specific mathematical modeling: analysis of chemoprotective hematopoietic stem cell gene therapy in human glioblastomas, *Soci. of Neuro-Oncology Annual Scientific Meeting*, Washington, D.C.
13. Kiem, H.P., Arumugam, P., Burtner, C.R., **Adair, J.E.**, Beard, B.C., Fox, C., Punam, M. (2013) Safety of gamma globin expressing lentivirus vector in a non-human primate model for gene therapy of sickle cell disease. *American Soc. of Hematology Annual Meeting*, New Orleans, LA.
14. Gori, J.L., Watts, K.L., Chandrasekaran, D., **Adair, J.E.**, Sauvageau, G., Kiem, H.P. (2013) Effective expansion and engraftment of nonhuman primate CD34<sup>+</sup> hematopoietic stem cells after co-culture with the small molecule UM171. *American Soc. of Hematology Annual Meeting*, New Orleans, LA.
15. **Adair, J.E.**, Porter, S.N., Porteus, M.H., Kiem, H.-P. (2014) Novel integrated hematopoietic clone tracking in nonhuman primates suggests a minimal population of multipotential stem cells with long-term repopulation potential in CD34-enriched cell pools. *International Soc. for Stem Cell Res. Annual Meeting*, Vancouver, B.C.
16. Humbert, O.M., Adams, A.B., Gish, D.W., Wohlfahrt, M.E., **Adair, J.E.**, Trobridge, G.D., Kiem, H.-P. (2015) Generation of a cocl envelope packaging cell line for robust lentiviral gene transfer into hematopoietic stem cells and T cells. *American Soc. of Gene and Cell Ther. 18<sup>th</sup> Annual Meeting*, New Orleans, LA.
17. Burtner, C.R., Humbert, O., O'Donnell, P., Hubbard, N., Humphrys, D., **Adair, J.E.**, Trobridge, G.D., Torgerson, T.R., Scharenberg, A.M., Rawlings, D.J., Felsburg, P.J., Kiem, H.-P. (2015) Direct comparison of EF1 $\alpha$  and PGK promoters reveals superior performance of the PGK promoter for expression of the common gamma chain in a canine model of in vivo foamy virus gene therapy for severe combined immunodeficiency. *American Soc. of Gene and Cell Ther. 18<sup>th</sup> Annual Meeting*, New Orleans, LA.

18. **Adair, J.E.**, Haworth, K.G., Sauvageau, G., Heimfeld, S., Hocum, J.D., Trobridge, G.D., Kiem, H.P. (2015) A Point-of-Care Platform for Hematopoietic Stem Cell Gene Therapy. *American Soc. Of Hematology 57<sup>th</sup> Annual Meeting*, Orlando, FL.
19. **Adair, J.E.**, Burtner, C.R., Kiem, H.P. (2015) Maintenance of Leukocyte Telomere Length after Transplant and Chemoselection in Macaques with Polyclonal Gene Modified Cell Engraftment. *American Soc. Of Hematology 57<sup>th</sup> Annual Meeting*, Orlando, FL.
20. Chandrasekaran, D., Kubek, S., Haworth, K., Kiem, H.-P. and **Adair, J.E.** (2016) Next generation platform for collection of and lentivirus mediated gene transfer into hematopoietic stem cells for Fanconi anemia gene therapy. *Fanconi Anemia Research Fund Annual Scientific Symposium*, Bellevue, WA.
21. **Adair, J.E.**, Radtke, S., Norgaard, Z.K., Haworth, K.G., Schefter, L.E., Giese, M.A., Chan, Y.-Y., Humphrys, D., Kiem, H.-K. (2017) Early engraftment of long-term multipotent hematopoietic stem cells after autologous transplantation. *Keystone Symposia B1: Hematopoiesis*, Banff, Alberta, Canada.
22. Radtke, S., Giese, M.A., Chan, Y.-Y., Norgaard, Z.K., Schefter, L.E., **Adair, J.E.**, Kiem, H.-K. (2017) Identification of an evolutionarily-conserved HSC-enriched phenotype in human and nonhuman primates. *Keystone Symposia B1: Hematopoiesis*, Banff, Alberta, Canada.
23. **Adair, J.E.**, Chandrasekaran, D., Schmuck, S., Sghia-Hughes, G., Haworth, K.G., Woolfrey, A., Burroughs, L.M., Becker, P.S., Kiem, H.-P. Lineage depletion preserves autologous blood stem cells for gene therapy of Fanconi Anemia complementation group A. *American Soc. Of Hematology 59<sup>th</sup> Annual Meeting*, Atlanta, GA.

#### *Abstract Oral Presentations*

1. **Adair, J.E.**, Beard, B.C., Spence, A., Rockhill, J.K., Silbergeld, D.L., Rostomily, R., Becker, P.S., Chamberlain, M., Mrugala, M. and Kiem, H.P. (2010) Efficient engraftment of MGMTP140K gene-modified CD34<sup>+</sup> cells following nonmyeloablative BCNU conditioning in patients with glioblastoma. *American Soc. Of Gene Cell Ther. 13<sup>th</sup> Annual Meeting* Washington D.C.
2. **Adair, J.E.**, Zhao, X., Becker, P.S., Kiem, H.P. (2010) Optimizing engraftment of *FANCA* gene-modified bone marrow cells in a mouse model of Fanconi anemia. *Fanconi Anemia Research Foundation (FARF) Annual Scientific Symposium*, Minneapolis, MN.
3. **Adair, J.E.**, Beard, B.C., Trobridge, G.D., M., Mrugala, M. and Kiem, H.P. (2011) Maintenance of hematopoietic polyclonality after MGMTP140K-mediated in vivo selection and chemoprotection following multiple cycles of chemotherapy in glioblastoma patients. *American Soc. Of Gene Cell Ther. 14<sup>th</sup> Annual Meeting*, Seattle, WA.
4. **Adair, J.E.**, Beard, B.C., Trobridge, G.D., Mrugala, M.M., Kiem, H.P. (2012) Transplantation of autologous MGMTP140K gene-modified CD34<sup>+</sup> cells in glioblastoma patients allows for

- increased chemotherapy administration and extended survival. *American Soc. Of Gene Cell Ther. 15<sup>th</sup> Annual Meeting*, Philadelphia, PA.
5. **Adair, J.E.**, Beard, B.C., Trobridge, G.D., Mrugala, M.M., Kiem, H.P. (2012) MGMP140K gene-modified CD34+ cells allow for increased chemotherapy administration and extended survival in poor-prognosis glioblastoma patients. *International Soc. for Cellular Ther. 18<sup>th</sup> Annual Meeting*, Seattle, WA.
  6. **Adair, J.E.**, Porter, S.N., Porteus, M.H., Kiem, H.-P. (2014) Novel integrated hematopoietic clone tracking in nonhuman primates suggests a minimal population of multipotential stem cells with long-term repopulation potential in CD34-enriched cell pools. *American Soc. Of Gene Cell Ther. 17<sup>th</sup> Annual Meeting*, Washington, D.C.
  7. **Adair, J.E.**, Mrugala, M., Storer, B.E., Johnston, S.K., Swanson, K.R., Kiem, H.-P. (2014) MGMP(P140K) hematopoietic stem cell gene therapy enhances tolerance and efficacy of temozolomide in combination with O<sup>6</sup>-benzylguanine in glioblastoma patients. *American Soc. Of Gene Cell Ther. 17<sup>th</sup> Annual Meeting*, Washington, D.C.
  24. **Adair, J.E.**, Waters, T., Haworth, K., Trobridge, G.D., Hocum, J., Sauvageau, G., Heimfeld, S., Kiem, H.-P. (2015) Development and Validation of a Globally Portable Platform for Lentivirus Mediated Hematopoietic Stem Cell Gene Therapy. *American Soc. of Gene and Cell Ther. 18<sup>th</sup> Annual Meeting*, New Orleans, LA.
  25. **Adair, J.E.**, Waters, T., Haworth, K., Trobridge, G.D., Hocum, J., Sauvageau, G., Heimfeld, S., Kiem, H.-P. (2015) Development of a Globally Portable Platform for Lentivirus Mediated hematopoietic Stem Cell Gene Therapy to Treat HIV. *Cell and Gene Ther. For HIV Cure*, Seattle, WA.
  26. **Adair, J.E.**, Schefter, L.E., Humphrys, D.R., Haworth, K.G., Hocum, J.D., Trobridge, G.D., Kiem, H.P. (2015) *In Vivo* Selection Unmasks a Dormant Pool of Repopulating Hematopoietic Clones. *American Soc. Of Hematology 57<sup>th</sup> Annual Meeting*, Orlando, FL.
  27. **Adair, J.E.**, Schefter, L.E., Humphrys, D.R., Haworth, K.G., Hocum, J.D., Trobridge, G.D., Kiem, H.P. (2015) *In Vivo* Selection Unmasks a Dormant Pool of Repopulating Hematopoietic Clones with Progenitor Cell Ontogeny. *American Soc. of Gene and Cell Ther. 19<sup>th</sup> Annual Meeting*, Washington, D.C.
  28. **Adair, J.E.**, Becker, P.S., Chandrasekaran, D., Choi, G., Woolfrey, A., Burroughs, L.M., Kiem, H.-P. (2016) Early results of a phase I clinical trial of lentivirus mediated gene therapy for Fanconi anemia complementation group A. *Fanconi Anemia Research Fund Annual Scientific Symposium*, Bellevue, WA.
  29. **Adair, J.E.**, Radtke, S., Norgaard, Z.K., Haworth, K.G., Schefter, L.E., Giese, M.A., Chan, Y.-Y., Humphrys, D., Kiem, H.-K. (2017) Early and stable engraftment of highly-enriched long-term multipotent hematopoietic stem cells after autologous, myeloablative transplantation in the nonhuman primate. *Am. Soc. of Gene and Cell Ther. 20<sup>th</sup> Annual Meeting*, Washington, D.C.

30. **Adair, J.E.**, Chandrasekaran, D., Kubek, S., Haworth, K.G., Becker, P.S., Woolfrey, A., Burroughs, L.M., Kiem, H.-K. (2017) Novel Manufacturing of Gene Corrected Autologous Blood Stem Cells for Gene Therapy of Fanconi Anemia Complementation Group A. *Am. Soc. of Gene and Cell Ther. 20<sup>th</sup> Annual Meeting*, Washington, D.C.

**OTHER:**

**Community Presentations**

*Regional*

- |         |  |
|---------|--|
| 07/2017 | <i>Gene Therapist for a Day</i><br>North Seattle Boys and Girls Club STEM Summer Camp<br>Seattle, WA   |
| 01/2017 | Hutch Award Luncheon Video<br>Seattle, WA  |
| 03/2016 | <i>Gene Therapy – Using DNA to Treat Blood Diseases</i><br>North Seattle Boys and Girls Club STEM Summer Camp<br>Seattle, WA                               |
| 06/2016 | <i>Rockstar Women in Science Town Hall Participant</i><br>Rockstar Women in Science Town Hall<br>Seattle, WA   |
| 03/2016 | <i>Gene Therapy – Using DNA to Treat Blood Diseases</i><br>Science for Life Lecture to the Public<br>Fred Hutchinson Cancer Research Center<br>Seattle, WA |
| 12/2015 | <i>NIH Funding Roundtable with Representative Suzan Delbene</i><br>Fred Hutchinson Cancer Research Center<br>Seattle, WA                                   |
| 11/2015 | <i>Gene Therapy: Developing new treatments for brain tumors and HIV</i><br>BlinkThink Gallery & Speaker Public Seminar Series<br>BlinkUX<br>Seattle, WA    |
| 05/2015 | <i>Girl in Future Technology (GIFT) Panelist</i><br>AT&T Corporate Offices, 16221 NE 72 <sup>nd</sup> Way, Presentation Room<br>Redmond, WA                |

- 05/2012 *Interdisciplinary Graduate Biomedical Research Training Programs at FHCRC*  
Premier Chef's Dinner to Benefit Fred Hutchinson Cancer Research Center  
Seattle, Washington
- 03/2012 *Be Breakthrough Campaign for Philanthropic Awareness*  
Selected Representative Scientist (Commercial)  
Fred Hutchinson Cancer Research Center  
Seattle, Washington
- 02/2012 *Gene Therapy to Protect Blood Cells from Chemotherapy*  
Miss Greek Participant Preparation, Delta Tau Delta House,  
University of Washington  
Seattle, Washington
- 10/2011 *Gene Therapy Approaches to Treat Malignant, Genetic and Infectious Diseases*  
Security Meeting  
Fred Hutchinson Cancer Research Center  
Seattle, Washington
- 11/2010 *Gene Therapy to Protect Blood Cells from Chemotherapy Innovator's Network Happy Hour*  
Fred Hutchinson Cancer Research Center  
Seattle, Washington
- National*
- 05/2018 *Closed Systems in Blood Cell Gene Therapy for Fanconi Anemia and HIV*  
10<sup>th</sup> Annual Stem Cell Clonality and Genome Stability Retreat  
Transatlantic Gene Therapy Consortium  
Chicago, IL
- 08/2017 *Bringing Gene Therapy to the Table*  
TEDx: Ideas Worth Spreading, Healthcare Next  
Nashville, Tennessee
- 11/2016 *Making Blood Stem Cell Gene Therapy Globally Portable*  
15<sup>th</sup> Annual NHLBI-sponsored meeting for Gene Therapy of Heart, Lung and Blood Diseases  
Sonoma, California
- 06/2015 *Fanconi Anemia Gene Therapy Trial*  
Fanconi Anemia Research Fund 24<sup>th</sup> Annual Family Meeting  
Camp Sunshine, Casco, Maine

- 06/2014                    *Gene Therapy in Fanconi Anemia*  
Fanconi Anemia Research Fund 23<sup>rd</sup> Annual Family Meeting  
Camp Sunshine, Casco, Maine
- 05/2014                    *The Life of a Gene Therapy Scientist*  
17<sup>th</sup> Annual meeting of the American Society of Gene and Cell Therapy  
Washington, D.C.
- 05/2013                    *Educational Outreach Session: High School Students and Educators*  
American Society of Gene and Cell Therapy Annual Meeting  
Salt Lake City, Utah
- 01/2013                    *Found in Translation: Miltenyi in Action from the Bench to the Bedside*  
Miltenyi Corporation International Sales Meeting  
Napa Valley, California
- 10/2012                    *Gene Therapy for Fanconi Anemia: The Second Decade*  
Fanconi Anemia Research Fund Annual Meeting for Adult FA Patients  
Austin, Texas
- 05/2012                    6<sup>th</sup> Annual Stem Cell Clonality and Genome Stability Retreat  
Philadelphia, Pennsylvania