

Curriculum Vitae – Donald Williams (Will) Parsons, MD, PhD
June 13, 2016

I. GENERAL BIOGRAPHICAL INFORMATION

A. Personal

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| 1. Name | Donald Williams (Will) Parsons, MD, PhD |
| 2. Date of Birth | July 25, 1970 |
| 3. Citizenship | USA |

B. Education:

1. Undergraduate Education

A.B., *cum laude*, Princeton University (Princeton, NJ), Chemistry, 1989-1992.
Thesis: Attempted thermal and photochemical routes to 1,2-dehydro-*o*-carborane.
Advisor: Maitland Jones, Jr., Ph.D.

2. Graduate Education

Ph.D., The Ohio State University College of Medicine (Columbus, OH), Pathology, 1995-1999.
Dissertation: Intragenic SMN mutations: frequency, distribution, evidence of a founder effect, and modification of SMA phenotype by centromeric copy number.
Advisor: Thomas W. Prior, Ph.D.

3. Medical Education

M.D., *summa cum laude*, The Ohio State University College of Medicine (Columbus, OH), 1992-2001.

4. Postgraduate Training

Internship and Residency, Pediatrics, Johns Hopkins University (Baltimore, MD), 2001-2004.

Fellowship, Pediatric Hematology/Oncology, Johns Hopkins University (Baltimore, MD) and National Cancer Institute (Bethesda, MD), 2004-2007.
Research Advisor: Bert Vogelstein, M.D.

Fellowship, Pediatric Neuro-Oncology, Johns Hopkins University (Baltimore, MD), 2007-2008.

C. Academic appointments

1. Faculty position at Baylor College of Medicine

Assistant Professor (2008-2015)

Department of Pediatrics, Section of Hematology-Oncology (primary)
Department of Molecular and Human Genetics
Human Genome Sequencing Center

Faculty Member, Translational Biology and Molecular Medicine program
(2011-present)

Director, Pediatric Center for Personal Cancer Genomics and Therapeutics,
Texas Children's Cancer and Hematology Centers (TXCH)
(2011-present)

Co-Director, Neuro-Oncology Program, TXCH
(2012-present)

Co-Director, Cancer Genetics & Genomics Program, TXCH
(2013-present)

Associate Professor (2015-present)

Department of Pediatrics, Section of Hematology-Oncology (primary)
Department of Molecular and Human Genetics
Human Genome Sequencing Center

2. Previous faculty position at other institution

Instructor, Division of Pediatric Oncology, Sidney Kimmel Comprehensive
Cancer Center at Johns Hopkins (2007-2008)

3. Faculty position at other institutions while at Baylor College of Medicine

Assistant Professor (Visiting), Division of Pediatric Oncology, Sidney Kimmel
Comprehensive Cancer Center at Johns Hopkins (2008-2009)

D. Other advanced training/experience

Not applicable.

E. Other information

1. Honors and Awards

Pediatric Cancer Working Group Member, National Cancer Moonshot Initiative

Blue Ribbon Panel (2016)
Pediatric Brain Tumor Foundation Hero Award (2015)
Sontag Foundation Distinguished Scientist Award (2011)
Houston Business Journal Health Care Hero Award, Biomedical (2011)
Alex's Lemonade Stand Foundation "A" Award (2010)
Doris Duke Charitable Foundation Clinical Scientist Development Award (2010)
Sidney Kimmel Foundation Translational Scholar Award (2010)
Peter A. Steck Memorial Award for Brain Tumor Research (2009)
American Society of Clinical Oncology Young Investigator Award (2007)
American Brain Tumor Association Basic Research Fellowship (2007)
Alex's Lemonade Stand Foundation Young Investigator Award (2007)
Chief Clinical Fellow, Pediatric Hematology/Oncology (2007)
Johns Hopkins Children's Center Schwentker Research Award (2004)
Society for Pediatric Research House Officer Research Award (2004)
Ohio State University Department of Pediatrics Award (2001)
Ohio State University Medical Scientist Award (2001)
J. Hutchison Williams Award for outstanding third year medical student (2000)
Department of Pathology Outstanding Graduate Student Award (2000)
Presidential Fellowship (1997)
Alpha Omega Alpha Medical Honor Society (1995)
Roy A. Koenigsknecht Graduate Alumni Fellowship (1995)
Samuel J. Roessler Scholarship Fund Research Fellowship (1994)
Donald A. Senhauser Post-Sophomore Fellowship in Pathology (1994)

2. Board Eligibility and Certification

General Pediatrics (expires 12/31/2018)

Pediatric Hematology-Oncology (expires 12/31/2016)

3. Other Non-academic Positions

Not applicable.

II. RESEARCH INFORMATION

A. Research Support

1. Completed Research Support

NIH # 5T32HD044355
Institutional Training for Pediatricians
PI: George J. Dover, M.D.
Project: A Mutational Analysis of the Protein Kinome in Colorectal Cancer
Project Period: 7/1/03 – 12/31/03
Role: Postdoctoral fellow

NIH # 5T32CA060441
Lab Research Training in Pediatric Oncology-Hematology
PI: Curt I. Civin, M.D.
Project: Comprehensive Analysis of the Breast/Colorectal Cancer Genomes
Project Period: 7/1/05 – 6/30/07
Role: Postdoctoral fellow

NIH # 5T32CA09574
Research Training in Neuro-Oncology
PI: Stuart A. Grossman, M.D.
Project: Genomic Characterization of Glioblastoma Multiforme
Project Period: 7/1/07 - 6/30/08
Role: Postdoctoral fellow

ASCO Young Investigator Award
Further Exploration of the Cancer Genome: A Critical Evaluation of Candidate
Cancer Genes as Potential Molecular Targets for Diagnostics and Therapeutics.
Project Period: 7/1/07 – 6/30/08
Annual Direct Costs: \$47,500
Total Award: \$47,500
Role: Principal Investigator

Alex's Lemonade Stand Foundation Fellowship
An Exploration of the Medulloblastoma and Glioblastoma Genomes: A Critical
Evaluation of Candidate Cancer Genes as Potential Molecular Targets for
Diagnostics and Therapeutics.
Project Period: 7/1/07 – 4/30/10
Annual Direct Costs: \$30,000
Total Award: \$60,000
Role: Principal Investigator

ABTA Basic Research Fellowship
A Comprehensive Mutation Analysis of the Medulloblastoma and Glioblastoma
Genomes.
Project Period: 7/1/07 – 6/30/10
Annual Direct Costs: \$40,000
Total Award: \$80,000
Role: Principal Investigator

Golfers Against Cancer Foundation
Identification of Molecular Targets in Pediatric High Grade Gliomas
Project Period: 3/1/10 – 2/28/11
Annual Direct Costs: \$30,000
Total Award: \$30,000

Project Goals: Evaluation of clinical utility of candidate cancer genes in pediatric high grade gliomas.

Role: Principal Investigator

SAIC – Frederick - Solicitation No. ST10-1018
Pediatric Cancer Sequencing (TARGET project)

PI: Richard A. Gibbs, Ph.D.

Project Period: 4/1/10 – 3/31/12

Annual Direct Costs: \$32,278

Project Goals: To catalog somatic DNA changes associated with pediatric cancers

Role: Co-Investigator

CPRIT Multi-Investigator Research (MIRA) Award RP101195-P02
Genomic Characterization of Hepatoblastoma Using Massively-Parallel DNA Sequencing (Project 2 of 'Genetics and Biology of Liver Tumorigenesis in Children', Gail Tomlinson, PI)

Project Period: 9/01/10 – 2/28/13 (NCE)

Annual Direct Costs (Project 2): \$363,496

Total Award (Project 2): \$703,046

Project Goals: Genomic characterization of hepatoblastoma

Role: Co-PI (Project 2 Principal Investigator)

Sidney Kimmel Foundation Kimmel Scholars Award
Defining Molecular Subtypes of Hepatoblastoma

Project Period: 7/1/10 – 6/30/13 (NCE)

Annual Direct Costs: \$86,957

Total Award: \$200,000

Project Goals: Identification of recurrent mutations and copy number alterations in hepatoblastomas.

Role: Principal Investigator

Alex's Lemonade Stand Foundation "A" Award

Genetic Analysis of Pediatric Gliomas

Project Period: 1/4/10 – 12/31/13 (NCE)

Annual Direct Costs: \$125,000

Total Award: \$375,000

Project Goals: Genome-wide mutational analysis of pediatric gliomas.

Role: Principal Investigator

Clayton Foundation Research Grant

Rapid Identification of Novel Molecular Targets for Cancer Diagnostics and Therapeutics Through Genomic Sequence Analysis of Pediatric Solid Tumors

Grant Period: 01/01/12-12/31/13

Annual Direct Costs: \$240,000

Total Award: \$600,000

Project Goals: To use sequencing technologies to characterize the molecular basis of pediatric solid tumors in order to identify frequently-altered genes that may be used for improved molecular diagnostics.

Role: Principal Investigator

Doris Duke Charitable Foundation Clinical Scientist Development Award

Pediatric GBM: Genomic Analysis and Clinical Correlation

Project Period: 7/1/10 – 12/31/14 (NCE)

Annual Direct Costs: \$150,000

Total Award: \$486,000

Project Goals: Identification of clinically-relevant genes in pediatric GBMs using high-throughput sequencing

Role: Principal Investigator

CPRIT Multi-Investigator Research (MIRA) Award RP120947 (RP120715-P02)

Genomic Characterization of Hepatoblastoma Using Massively-Parallel DNA Sequencing (Project 2 of 'Genetics and Biology of Liver Tumorigenesis in Children')

PI: Gail Tomlinson, M.D., Ph.D.

Project Period: 8/31/12 – 2/28/15 (NCE)

Annual Direct Costs (Project 2 only): \$135,090

Total Award (Project 2 only): \$142,200

Project Goals: Genomic characterization of hepatoblastoma and hepatocellular carcinoma using next-generation sequencing

Role: Principal Investigator, Project 2

2. Ongoing Research Support

Sontag Foundation Distinguished Scientist Award

Comprehensive Genomic Characterization of Rare Pediatric Brain Tumors

Project Period: 10/1/11 – 9/30/15 (NCE)

Annual Direct Costs: \$137,815

Total Award: \$600,000

Project Goals: To molecularly characterize rare pediatric brain tumors and develop in vitro and in vivo models for pre-clinical studies of novel agents.

Role: Principal Investigator

5U01HG006485

National Human Genome Research Institute

Incorporation of Genomic Sequencing into Pediatric Cancer Care

Project Period: 12/05/11-11/30/15 (NCE)

Annual Direct Costs: \$1,278,946

Total Award: \$6,646,039

Project Goals: To integrate CLIA-certified germline and tumor exome sequencing information into the care of childhood cancer patients with high-risk solid tumors and brain tumors of the Texas Children's Cancer Center.

Role: Principal Investigator (dual PI with Sharon Plon, MD., PhD.)

CPRIT Multi-Investigator Research (MIRA) Award RP120882 (RP120685-P1)
Identification of Actionable Mutations in STS and ESFT Tumors (Project 1 of
'Molecularly Targeted Therapy for Soft Tissue Sarcoma in Texas')

PI: Steve Skapek, M.D.

Project Period: 05/01/12 – 8/31/18

Annual Direct Costs (Project 1 only): \$363,496

Total Award (Project 1 only): \$1,478,447

Project Goals: Identification and characterization of potentially-actionable genetic
alterations in ESFT and STS using next-generation sequencing

Role: Principal Investigator, Project 1

SU2C / St. Baldrick's Foundation Pediatric Dream Team Translational Grant
Immunogenomics to Create New Therapies for High-Risk Pediatric Cancers

PI: John Maris, M.D

Project Period: 07/01/13 - 06/30/17

Annual Direct Costs (BCM only): \$760,000

Total Award (BCM only): \$3,344,000

Project Goals: To create new immunotherapies for high-risk pediatric solid
tumors based on integrated genomic analyses of patient tumors.

Role: Dream Team Principal (BCM PI)

5 U01 CA081457-15 (Boyett)

NCI/St. Jude's Children's Research Hospital

PI: James Boyett, M.D. (Sub PI: Chintagumpala)

Pediatric Brain Tumor Consortium

Project Period: 4/01/14 – 3/31/19

Annual Direct Costs: \$40,160

Project Goals: To continue the clinical research activities of the Pediatric Brain
Tumor Consortium (PBTC) in order to identify new treatment approaches for
children with brain tumors.

Role: Co-Investigator

1R01NS080963-01 (Song)

NIH-NINDS

Chemical Probes Targeting Gliomas with *IDH1* Mutation

PI: Yongcheng Song, Ph.D.

Grant Period: 09/30/12 – 08/31/17

Annual Direct Costs: \$218,750

Project Goals: To use a combination of rational inhibitor design, medicinal
chemistry, protein X-ray crystallography and biological activity testing to discover
and develop potent small-molecule inhibitors of IDH.

Role: Co-Investigator

1R01CA185402-01(Li)

NCI

Patient Derived Orthotopic Xenograft Models for Drug Response Prediction

PI: Xiao-Nan Li, M.D., Ph.D.

Grant Period: 04/01/14 – 03/31/18

Annual Direct Costs: \$210,874

Project Goals: To test the hypothesis that patient tumor-derived orthotopic xenograft tumors will respond to anti-cancer therapies similarly to the corresponding human primary tumors and can be utilized to predict patient drug responses.

Role: Co-Investigator

Consortium Research Grant (Rodriguez-Galindo)

St. Baldrick's Foundation

Consortium for Clinical and Translational Research in Langerhans Cell Histiocytosis (LCH)

PI: Carlos Rodriguez-Galindo, M.D.

Grant Period: 07/01/14-06/30/19

Annual Direct Costs: \$275,235

Project Goals: To develop innovative clinical and translational studies leading to improved care for children with LCH.

Role: Co-Investigator

ALSF Epidemiology Grant (Lupo)

Alex's Lemonade Stand Foundation

Exploring the Intersection Between Childhood Cancer and Birth Defects to Identify Novel Cancer Predisposition Syndromes

PI: Phillip Lupo, Ph.D.

Grant Period: 07/01/14 – 06/30/16

Annual Direct Costs: \$100,000

Project Goals: To utilize high-quality population-based birth defect and cancer registries to characterize the relationship between birth defects and the development of childhood cancers, investigate mechanisms of cancer susceptibility and improve screening strategies.

Role: Co-investigator

RP140469 (Song)

CPRIT (Cancer Prevention and Research Institute of Texas)

Novel Small Molecule Probes Targeting IDH Mutated Glioma

PI: Yongcheng Song, Ph.D.

Grant Period: 09/01/14-08/31/17

Annual Direct Costs: \$215,000

Project Goals: To develop novel chemical probes to investigate the biological functions of mutant IDH and new avenues for treatment of IDH-mutated glioma

Role: Co-Investigator

RP150032 (Li)

CPRIT (Cancer Prevention and Research Institute of Texas)

Developing New Combinatory Therapies for Pediatric High Grade Glioma

PI: Xiao-Nan Li, M.D., Ph.D.

Grant Period: 03/01/15-02/28/19

Annual Direct Costs: \$485,142

Project Goals: To develop novel treatment strategies for pediatric high grade glioma (pHGG) using combinatorial high-throughput drug screening.

Role: Co-Investigator

RP150334 (Deneen)

CPRIT (Cancer Prevention and Research Institute of Texas)

Personalized Functionalization of Pediatric High Grade Glioma

PI: Ben Deneen, Ph.D.

Grant Period: 03/01/15-02/28/19

Annual Direct Costs: \$455,080

Project Goals: To identify functional pHGG driver genes using a novel screening platform that employs an innovative strategy to enable rapid modeling of barcoded mutant genes based on the genomes of individual pHGG patient tumors and a driver screening system for delivering these cancer gene candidates directly to the developing mouse brain.

Role: Co-Investigator

1U01CA199288-01 (Li)

National Cancer Institute

Pediatric Preclinical Testing Consortium

In Vivo Drug Testing of Pediatric CNS Tumors Using Patient Derived Orthotopic Xenograft Models

Grant Period: 07/14/15-06/30/20

Annual Direct Costs: \$393,890

Project Goals: To utilize molecularly-characterized orthotopic xenograft models of pediatric CNS tumors to test investigational therapies.

Role: Co-Investigator

Clinical and Translational Research Award (Parsons)

Cookies for Kids' Cancer

Evaluating the Impact of Tumor Heterogeneity and Clonal Evolution on Clinical Genomic Testing for Pediatric Solid Tumor Patients

Grant Period: 12/01/15-11/30/17

Annual Direct Costs: \$100,000

Project Goals: To improve clinical genomic testing of pediatric tumors through analysis of tumor heterogeneity and development of methods to detect rare treatment-resistant clones in diagnostic tumor specimens.

B. National Scientific Participation

1. Journal editorial boards etc.

Ad hoc peer reviewer (last 5 years):

American Journal of Human Genetics
Blood
Cancer Cell
Cancer Research
Clinical Cancer Research
Clinical Chemistry
European Journal of Cancer
Expert Review of Molecular Diagnostics
Frontiers in Oncology
Genetics in Medicine
Genome Research
International Journal of Cancer
Journal of Clinical Oncology
Journal of Law, Medicine & Ethics
Journal of the National Cancer Institute
Molecular Diagnosis and Therapy
Nature Genetics
Nature Medicine
Nature Reviews Neurology
Neurosurgery
New England Journal of Medicine
Oncogene
Pediatric Blood & Cancer
Pediatric Hematology and Oncology
PLoS ONE
Proceedings of the National Academy of Sciences
Science

2. Review panels, etc.

Ad hoc grant/abstract reviewer:

Scientific Reviewer Network, Ivy Foundation (2009)
United Kingdom MRC, Molecular and Cellular Medicine Board (2009)
Neurologic Foundation of New Zealand (2009)
Dan L. Duncan Cancer Center Pilot Projects (2009-2010)
ABTA Medical Student Summer Fellowship (2010)
Dutch Cancer Society (2010)
Health Research Council of New Zealand (2010)
MD Anderson Duncan Family Institute Seed Funding Program (2010)
BCM Graduate Student Research Forum (2010-2016)
TXCCC Annual Research Symposium (2010-2016)

ABTA Discovery Grant Review Panel (2011-2016)
ASPHO Annual Meeting Abstract Review (2011-2014)
Hong Kong Research Grants Council (2011)
BCM Pediatric Pilot Awards (2011)
ABTA Research Alumni Research Conference Co-Chair (2012)
Association for International Cancer Research (2012)
Abstract Review Co-Chair, CPRIT Annual Meeting (2012)
The Brain Tumour Charity (2012)
Helis Foundation (2012-2015)
ALSF POST Program (2013-2014)
ALSF A-Award (2013-2016)
St. Baldrick's Foundation Research Grants (2013-2016)
St. Baldrick's Foundation Career Development Award (2014-2015)
NIH (NINDS) Study Section (SRB-B 38 P30/R24) (2013)
ALSF Innovation Award (2014)
ALSF Bio-Therapeutics Impact Grants (2014-2015)
BCM President's Award for Innovative Research (2014)
Wellcome Trust Intermediate Clinical Fellowship Program (2015)
NCI Loan Repayment Program (2016)
NHGRI IGNITE Consortium (2016)
Canada First Research Excellence Fund Competition (2016)
Children with Cancer UK (2016)

3. Professional societies and positions

Memberships:

American Association for Cancer Research (AACR)
American Society of Clinical Oncology (ASCO)
American Society for Pediatric Hematology/Oncology (ASPHO)
Children's Oncology Group (COG)
Society for Neuro-Oncology (SNO)
Pediatric Brain Tumor Consortium (PBTC)

Leadership positions:

Pediatric Oncology Task Force, AACR (2009-2010)
Co-Chair, Biology Committee, Pediatric Brain Tumor Consortium
(2009-present)
Scientific Committee, Pediatric Brain Tumor Consortium (2009-present)
CNS Disease Committee, Children's Oncology Group (2010-present)
Program Committee, ASPHO (2011-present)
Young Scientist Advisory Committee, Alex's Lemonade Stand Foundation
(2012-present)
Steering Committee, NHGRI Clinical Sequencing Exploratory Research
Program (2012-present)
Scientific Advisory Board, Alex's Lemonade Stand Foundation
(2013-present)

Co-Chair, NHGRI CSER Tumor Sequencing Working Group (2014-)
Scientific Advisory Board, MD Anderson Moon Shots Program (2014-)
Scientific Advisory Board, INFORM Clinical Trials Consortium (2015-)
COG Study Chair, NCI Pediatric MATCH study (2015-)

4. Selected invited lectures, presentations, research seminars (7/1/2008 -)

Plenary Lecture: “Genome-wide Mutational Analyses of Human Cancers: Lessons Learned From Sequencing Cancer Genomes”, 36th Congress of the International Society of Oncology and Biomarkers (ISOBM2008), Tokyo, Japan, October 2008

Invited Panelist on “Genomic Analyses of GBM” and Lecture: “Integrated Genomic Analyses of Glioblastoma Multiforme: What Next?”, ABC2 Annual Scientific Meeting, Washington, DC; November 2008

Invited Lecture: “Genomic Analysis of Glioblastoma Multiforme”, Gordon Research Conference on Cancer Genetics and Epigenetics, Ventura Beach, CA, January 2009

Invited Lecture: “The Role of Genetics and Genomics in Prospective Clinical Trials of Low-Grade Gliomas”, Pediatric Brain Tumor Consortium Symposium on Low Grade Gliomas, Arlington, VA, March 2009

Invited Lecture: “Insights into glioma pathogenesis achieved through genomic analysis of glioblastoma multiforme”, American Association for Cancer Research 100th Annual Meeting, Denver, CO, April 2009

Invited Lecture: “New Insights into the Genetics of Glioblastoma Multiforme”, Memorial Sloan Kettering Cancer Center Brain Tumor Seminar Series, New York, NY, May 2009

Invited Lecture: “Insights into glioma pathogenesis achieved through genomic analysis of glioblastoma multiforme”, Children’s National Medical Center Oncology Center Grand Rounds, Washington, DC, May 2009

Invited Lecture: “Genomic analysis of glioblastoma multiforme”, Pediatric Brain Tumor Foundation, Pediatric Neuro-Oncology Basic & Translational Research Conference, Asheville, NC, October 2009

Invited Lecture: “Integrated genomic analysis of GBM results in the identification of *IDH1* as a critical gene in the development of malignant gliomas”, American Society for Human Genetics Annual Meeting, Scientific Session: Impact of Large-scale Genomics on Target Discovery in Cancer, Honolulu, HI, October 2009

Invited Lecture: “Insights into glioma development achieved through genome-wide mutation analysis of glioblastoma multiforme (GBM)”, St. Jude Children’s Research Hospital Neurobiology Brain Tumor Program Conference, Memphis, TN, November 2009

Invited Lecture: “Genomic landscape of cancer”, The Future of Genomic Medicine III Conference at Scripps Translational Science Institute, Session: Cancer Genomics, La Jolla, CA, March 2010

Invited Lecture: “Genomic approaches to high grade gliomas”, I Seve Ballesteros Foundation, Translational Neurooncology Summit, Madrid, Spain, October 2010

Invited Lecture: “Sequencing cancer genomes: what have we learned so far?”, University of Texas Human Genetics Center Seminar Series, Houston, TX, October 2010

Invited Lecture: “Someday soon this might actually be important for our patients (really!): an update on the molecular biology of pediatric brain tumors”, Pediatric Brain Tumor Symposium, Cook Children’s Medical Center, Fort Worth, TX, November 2010

Invited Lecture: “Discovery of IDH1/IDH2 mutations in gliomas”, IDH1 Minisymposium, Society for Neuro-Oncology 15th Annual Scientific Meeting, Montreal, Canada, November 2010

Invited Lecture: “Molecular profiling of medulloblastoma”, Pediatric Neurology Grand Rounds, Texas Children’s Hospital, Houston, TX, February 2011

Invited Lecture: “Insights into biology and therapy of brain tumors from large scale genomic analysis”, DIPG.org Pediatric Brain Tumor Symposium, Cincinnati, OH, March 2011

Invited Lecture: “The genetic landscape of the childhood cancer medulloblastoma”, Texas Genetics Society Annual Meeting, Dallas, TX, April 2011

Session Moderator and Invited Lecture: “Molecular classification of pediatric brain tumors: are we there yet?”, American Society of Pediatric Hematology/Oncology Annual Meeting, Baltimore, MD, April 2011

Invited Lecture: “The genetic landscape of medulloblastoma”, Pediatric Neuro-Oncology Basic and Translational Research Conference, New Orleans, LA, May 2011

Invited Lecture and Panelist: “The discovery of IDH1/IDH2 mutations in gliomas”, NCI Translational Science Meeting 2011: From Molecular Information to Cancer Medicine, Galvanizing Examples Session, Bethesda, MD, July 2011

Invited Lecture: “The genetic landscape of the childhood cancer medulloblastoma”, 2011 U.S.–Japan Workshop on Cancer Genomics, Kyoto, Japan, October 2011

Invited Lecture: “Sequencing cancer exomes: lessons learned and potential application to DIPG”, Diffuse Intrinsic Pontine Glioma Consensus Conference, Bethesda, MD, October 2011

Invited Lecture and Panelist: “Glioblastoma: Basic to Applied”, Cancer Prevention & Research Institute of Texas (CPRIT) Innovations in Cancer Research and Prevention Annual Conference, Austin, TX, November 2011

Invited Lecture: “Incorporation of Genomic Sequencing into Pediatric Cancer Care”, Pediatric Cancer Translational Genomics Meeting, Scottsdale, AZ, February 2012

Session Moderator: “Current Concepts in Ependymoma: From Biology to Clinical Care”, American Society of Pediatric Hematology/Oncology Annual Meeting, New Orleans, LA, April 2012

Invited Lecture: “Bringing Genomics into the Pediatric Oncology Clinic”, Childhood Cancer Think Tank, Cancer Prevention & Research Institute of Texas (CPRIT) CTNeT Investigator Meeting, Houston, TX, April 2012

Invited Lecture: “Pediatric Cancer Genome Sequencing: From the Lab to the Clinic”, Children’s Hospital of Philadelphia Research Institute & Center for Childhood Cancer Research Oncology Seminar Series, Philadelphia, PA, May 2012

Session Chair and Invited Lecture: “Finding the Needles in the Haystack: The Promise and Limitations of Next-Generation Sequencing”, “Molecular Pathways for the Practicing Pediatric Oncologist” Education Session, American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, IL, June 2012

Invited Lecture: “Bringing Genomics into the Pediatric Oncology Clinic”, Personalized Medicine Seminar, Indiana Institute for Personalized Medicine, Indiana University, Indianapolis, IN, August 2012

Invited Lecture: “Bringing Genomics into the Pediatric Oncology Clinic”, Bioinformatics & Computational Biology Cancer Genome Sequencing Seminar, University of Texas MD Anderson Cancer Center, Houston, TX, September 2012

Invited Lecture and Panelist: "What Genomic Approaches Are Telling Us About Pediatric Cancer", Washington Academy of Sciences / American Association for the Advancement of Science symposium "Pediatric Cancer in the 21st Century: Harnessing Science to Improve Outcomes", Washington, DC, October 2012

Plenary Lecture: "Clinical Sequencing of Cancer Exomes: The Initial Texas Children's Hospital Experience", Association for Molecular Pathology 2012 Annual Meeting, Long Beach, CA, October 2012

Invited Lecture: "Personalized Brain Tumor Care Through Genome Sequencing: Truth or Fiction?", 2012 Pediatric Brain Tumor Symposium, Fort Worth, TX, November 2012

Invited Lecture: "The BASIC3 Project: Bringing Genomics into the Pediatric Oncology Clinic", 2012 International Cancer Genome Consortium Workshop, Heidelberg, Germany, December 2012

Invited Lecture: "The BASIC3 Study: Bringing Clinical Genomics into the Pediatric Oncology Clinic, Genetics Department Information Exchange Seminar, University of Texas MD Anderson Cancer Center, Houston, TX, February 2013

Invited Lecture: "Applying Genomics to Cancer Care: From the Lab to the Clinic", Cancer and Cell Biology Seminar, University of Cincinnati, Cincinnati, OH, April 2013

Invited Lecture: "Learning How to Sequence Exomes in the Pediatric Oncology Clinic", Translational Research Seminar Series, Nationwide Children's Hospital, Columbus, OH, May 2013

Invited Lecture: "Bringing Genomics into the Pediatric Oncology Clinic: the BASIC3 Study", Harvard/Longwood Pathology Combined Grand Rounds, Boston Children's Hospital, Boston, MA, May 2013

Poster Presentation: "Implementation and evaluation of clinical exome sequencing in childhood cancer care: the BASIC3 study", ASCO Annual Meeting, Chicago, IL, June 2013

Invited Lecture: "Toward precision medicine: Moving brain cancer genomics from bench to clinic", ABC2 Annual Meeting, Washington, DC, September 2013

Invited Lecture and Panelist: "Clinical Exome Sequencing in the Pediatric Oncology Clinic", Individualizing Medicine Conference, Mayo Clinic, Rochester, MN, October 2013

Oral Presentation: "Diagnostic yield of clinical tumor exome sequencing for newly-diagnosed pediatric solid tumor patients", ASHG Annual Meeting, Boston, MA, October 2013

Oral Presentation: "Evaluating the implementation and utility of clinical tumor exome sequencing in the pediatric oncology clinic: the BASIC3 study", AACR Pediatric Cancer Conference, San Diego, CA, November 2013

Invited Panelist. "Clinical Genomics: Panel Discussion", AACR Pediatric Cancer Conference, San Diego, CA, November 2013

Invited Lecture: "Clinical exome sequencing in the pediatric oncology clinic: early results of the BASIC3 study", Pediatric Oncology Clinical Genomics Consortium meeting, Boston, MA, January 2014

Invited Lecture: "Implementation of clinical genomics in the pediatric oncology clinic: Challenges faced and lessons learned", Nature SciCafé symposium, Houston, TX, February 2014

Invited Lecture: "Bringing genomics into the pediatric neuro-oncology clinic", Pediatric Neuro-Oncology Symposium, MD Anderson Cancer Center, Houston, TX, February 2014

Invited Lecture: "Bringing genomics into the pediatric oncology clinic: Lessons learned from the BASIC³ study, TARGET Steering Committee Meeting, National Cancer Institute, Bethesda, MD, March 2014

Poster Presentation: "Diagnostic yield of clinical tumor and germline exome sequencing for newly diagnosed children with solid tumors, AACR Annual Meeting, San Diego, CA, April 2014

Oral Presentation (with SE Plon): "What's in an exome? Diversity of diagnostic and incidental findings revealed by clinical tumor and germline sequencing of 100 children with solid tumors in the BASIC³ trial, Pediatric Hematology-Oncology Research Seminar Series, Texas Children's Cancer & Hematology Centers, Houston, TX, April 2014

Keynote Lecture: "Genomics in the pediatric oncology clinic: Challenges and opportunities", 17th Annual Molecular and Human Genetics Symposium, University of Texas at Houston Graduate School of Biomedical Sciences, Houston, TX, April 2014

Invited Lecture: "Incorporating genomics into the pediatric neuro-oncology clinic: Challenges, lessons learned, and implications for clinical trial development", Pediatric Brain Tumor Foundation Scientific Conference, San Antonio, TX, May 2014

Symposium session moderator and panelist: “Personalized care for pediatric brain tumors: Fact or fiction?”, Annual meeting of the American Society of Pediatric Hematology-Oncology, Chicago, IL, May 2014

Invited Lecture: “Genomics and its implications for brain tumors”, Educational Webinar Series, American Brain Tumor Association, [online], May 2014

Oral presentation: “What’s in an exome? Diversity of diagnostic and incidental findings revealed by clinical tumor and germline sequencing of 100 children with solid tumors”, American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, IL, June 2014

Invited lecture: “Incorporating genomics into the pediatric oncology clinic: Initial observations from the BASIC3 study”, Children’s Research Institute Seminar, Children’s National Medical Center, Washington, DC, June 2014

Invited lecture: “Exome sequencing in the pediatric oncology clinic: Results, Realities, and implications for clinical trials of precision medicine”, Center for Cancer Research Seminar, Pediatric Oncology Branch, National Cancer Institute, Bethesda, MD, June 2014

Oral presentation: “Whole exome sequencing of children with high grade gliomas reveals recurrent targetable somatic mutations and frequent pathogenic alterations in cancer susceptibility genes”, 16th International Society of Pediatric Neuro-Oncology (ISPNO) meeting, Singapore, July 2014

Invited lecture and symposium panelist: “Evaluating tumor exome sequencing in the oncology clinic: Lessons from the BASIC3 study”, 22nd Annual International Conference on Intelligent Systems for Molecular Biology, Boston MA, July 2014

Oral presentation: “Assessing the clinical utility of tumor exome sequencing in the pediatric neuro-oncology clinic”, 20th International Conference on Brain Tumor Research and Therapy, Lake Tahoe CA, July 2014

Invited lecture: “Clinical sequencing in the pediatric oncology clinic: challenges and opportunities”, session on NGS-based approaches to guide treatment, 7th Annual Predictive Cancer Biomarkers meeting, Washington, DC, August 2014

Invited lecture: “Incorporation of clinical genomics into the pediatric oncology clinic: Lessons learned from the BASIC3 study, Research Seminar, Hemato-Oncology Axis at CHU Sainte-Justine, Montreal, CA, September 2014

Invited lecture: “Promises, possibilities, and pitfalls: Lessons learned from clinical exome sequencing of pediatric solid tumor patients”, CureSearch Symposium, Individualized Medicine session, Washington, DC, October 2014

Invited lecture: "Personalized genomics", Alex's Lemonade Stand Foundation Young Investigator Summit, Philadelphia, PA, October 2014

Invited lecture: "Current realities of the implementation of clinical genomics in pediatric oncology, Toronto Hospital for Sick Children, Toronto, Canada, October 2014

Invited lecture: "Cancer genome sequencing: Challenges, opportunities, and application to the study of LCH", Histiocyte Society Annual Meeting, Toronto, Canada, October 2014

Invited lecture: "Return of results after death of the research participant: The initial BASIC3 study experience", Clinical Sequencing Exploratory Research consortium fall meeting, Bethesda, MD, October 2014

Invited lecture: "Clinical exome sequencing of pediatric solid tumors: Implications for patient care and design of precision oncology clinical trials", Cold Spring Harbor Laboratories Personal Genomes 2014 Meeting, Cold Spring Harbor, NY, November 2014

Invited lecture: "To sequence or not to sequence: Assessing the utility of clinical genomics for children with solid tumors", 12th Annual Dan L. Duncan Cancer Center Symposium, Houston, TX, January 2015

Invited lecture: "Comprehensive genomic characterization of pediatric brain tumors, Sontag Foundation 2015 Mid-Winter Retreat, Jacksonville, FL, February 2015

Invited lecture: "Lessons learned from clinical tumor and germline exome sequencing of pediatric solid tumor patients: Implications for prospective precision oncology trials", National Cancer Institute Pediatric Cancer Genomics Workshop, Bethesda, MD, February 2015

Invited lecture: "Lessons learned from clinical exome sequencing of pediatric solid tumors", Boston Children's Hospital/Dana-Farber Cancer Institute Division of Hematology/Oncology Seminar Series, Boston, MA March 2015

Invited lecture: "Genomic analysis of undifferentiated sarcomas", Soft Tissue Sarcoma Committee Session, Children's Oncology Group Spring Meeting, Atlanta, GA, April 2015

Invited lecture: "Thoughts on genomic research opportunities for pediatric soft tissue sarcomas", Children's Oncology Group Bone and Soft Tissue Sarcoma Cancer Genomics and Precision Medicine Meeting, Philadelphia, PA, April 2015

Invited lecture: "The Clinical Sequencing Exploratory Research (CSER) program: Investigating the actionability of tumor sequencing variants, American Association for Cancer Research 2015 Annual Meeting, Philadelphia, PA, April 2015

Invited lecture: "Baylor College of Medicine BASIC3 update", Clinical Sequencing Exploratory Research (CSER) Consortium spring meeting, Bethesda, MD, April 2015

Invited lecture: "Tumor and germline sequencing of pediatric solid tumor patients: Early lessons learned", Southern Alberta Cancer Research Institute (SACRI) Research Seminar, University of Calgary, Calgary, Canada, April 2015

Invited lecture: "Cancer genome analysis: Opportunities and challenges of precision oncology approaches for children with CNS tumors", Wyss Family Symposium on Genetic Predisposition to Brain Cancer", Columbus, OH, May 2015

Invited lecture: "The pros and cons of genome sequencing", Wyss Family Symposium on Genetic Predisposition to Brain Cancer", Columbus, OH, May 2015 (family session)

Invited lecture: "Clinical tumor and germline sequencing of pediatric malignancies", Education Session: "Real-time genetic profiling: the time is now (or is it?)", American Society of Clinical Oncology 2015 Annual Meeting, Chicago, IL, May 2015

Keynote lecture: "Not so BASIC(3): Moving toward precision oncology trials for children with solid tumors", Texas Children's Cancer and Hematology Centers Annual Symposium, May 2015

Education session. "Clinical tumor and germline sequencing of pediatric malignancies", Real-time genetic profiling: the time is now (or is it?)", American Society of Clinical Oncology 2015 Annual Meeting, Chicago, IL, May 2015

Invited lecture and panelist: "Clinical genomics for children with solid tumors: Current realities and future opportunities", AACR Precision Medicine Meeting: Integrating Clinical Genomics and Cancer Therapy, Salt Lake City, UT, June 2015

Invited lecture: "NCI Pediatric MATCH study: Bringing genomics into the pediatric oncology clinic", Hyundai Hope on Wheels 2nd Annual Thought Leaders' Summit, Washington, DC, September 2015

Invited lecture: “Baylor College of Medicine BASIC3 update”, Clinical Sequencing Exploratory Research (CSER) Consortium fall meeting, Bethesda, MD, September 2015

Invited lecture: “NCI Pediatric MATCH study update”, Bioethics Committee Session, Children’s Oncology Group Spring Meeting, Dallas, TX, September 2015

Moderator and Invited panelist, Alex’s Lemonade Stand Foundation Young Investigator Summit, Philadelphia, PA, October 2015

Invited lecture: “NCI Pediatric MATCH study update”, TARGET Steering Committee Meeting, National Cancer Institute, Bethesda, MD, October 2015

Invited lecture: “Precision medicine: Pediatric Oncology”, Dan L. Duncan Cancer Center Annual Retreat, Houston, TX, October 2015

Oral presentation: “Internal tandem duplications of *BCOR* are a major oncogenic event in clear cell sarcoma of the kidney”, Advances in Pediatric Cancer Research Conference, Fort Lauderdale, FL, November 2015

Invited lecture: “From discovery to diagnostics: Bringing genomics into the pediatric oncology clinic”, Children’s Hospital of Philadelphia Research Institute & Center for Childhood Cancer Research Oncology Seminar Series, Philadelphia, PA, November 2015

Invited lecture: “Biological and clinical significance of somatic mutations in Langerhans Cell Histiocytosis and related histiocytic neoplastic disorders”, Education Session on “Recent Advances in Histiocytic Neoplasms”, American Society of Hematology 2015 Annual Meeting, Orlando, FL, December 2015

Invited lecture: “Lessons learned from clinical exome sequencing of childhood cancer patients”, Lurie Children’s Hospital seminar, Chicago, IL, January 2016

Invited Lecture: “Precision oncology for childhood cancer patients: Ready for prime time?”, University of Texas Human Genetics Center Seminar Series, Houston, TX, February 2016

Education session: “Precision oncology in pediatrics: From pilot studies to prospective trials”, American Association for Cancer Research 2016 Annual Meeting, New Orleans, LA, April 2016.

Invited lecture: “Exomes and beyond: Clinical sequencing for pediatric solid tumor patients”, American Association for Cancer Research 2016 Annual Meeting, New Orleans, LA, April 2016.

Invited lecture: "Clinical sequencing for pediatric solid tumor patients: Challenges and opportunities", Loeffler Seminar Series, Greehey Cancer Research Institute, San Antonio, TX, May 2016

Invited lecture: "Project:EveryChild and NCI Pediatric MATCH project updates", Pediatric Brain Tumor Foundation Research Meeting, New Orleans, LA, May 2016

Symposium discussant: "Central nervous system tumors in the genomic era: From diagnosis to survivorship", ASCO Annual meeting, Chicago, IL, June 2016

Invited lecture: "Incorporating copy number arrays into integrated sequencing of pediatric cancers", MD Anderson Cancer Center research symposium, Houston, TX, June 2016

C. Publications (all full papers published in peer-reviewed journals)

1. **Parsons DW**, McAndrew PE, Monani UR et al. An 11 base pair duplication in exon 6 of the *SMN* gene produces a type I spinal muscular atrophy (SMA) phenotype: further evidence for *SMN* as the primary SMA-determining gene. *Hum Mol Genet* 1996; 5: 1727-32. PubMed PMID: 8922999.
2. **Parsons DW**, McAndrew PE, Allinson PS et al. Diagnosis of spinal muscular atrophy in an *SMN* non-deletion patient using a quantitative PCR screen and mutation analysis. *J Med Genet* 1998; 35: 674-6. PubMed PMID: 9719377.
3. **Parsons DW**, McAndrew PE, Iannaccone ST et al. Intragenic telSMN mutations: frequency, distribution, evidence of a founder effect, and modification of SMA phenotype by cenSMN copy number. *Am J Hum Genet* 1998; 63: 1712-23. PubMed PMID: 9837824.
4. McAndrew PE, **Parsons DW**, Simard LR et al. Identification of proximal spinal muscular atrophy carriers and patients by analysis of *SMN^T* and *SMN^C* gene copy number. *Am J Hum Genet* 1999; 60: 1411-22. PubMed PMID: 9199562.
5. Monani UR, Lorson CL, **Parsons DW** et al. A single nucleotide difference that alters splicing patterns distinguishes the SMA gene *SMN1* from the copy gene *SMN2*. *Hum Mol Genet* 1999; 8: 1177-83. PubMed PMID: 10369862.
6. Monani UR, Sendtner M, Coover DD, **Parsons DW** et al. The human centromeric survival motor neuron gene (*SMN2*) rescues embryonic lethality in *SMN^{-/-}* mice and results in a mouse with spinal muscular atrophy. *Hum Mol Genet* 2000; 9: 333-9. PubMed PMID: 10655541.
7. Bardelli A, **Parsons DW***, Silliman N et al. Mutational analysis of the tyrosine kinome in colorectal cancers. *Science* 2003; 300: 949. PubMed PMID: 12738854.
*Co-first author.

8. Wang Z, Shen D, **Parsons DW**, et al. Mutational analysis of the tyrosine phosphatase in colorectal cancers. *Science* 2004; 304: 1164-6. PubMed PMID: 15155950.
9. Wang Z, Cummins JM, Shen D, Cahill DP, Jallepalli PV, Wang T-L, **Parsons DW** et al. Three classes of genes mutated in colorectal cancers with chromosomal instability. *Cancer Res* 2004; 64: 2998-3001. PubMed PMID: 15126332.
10. **Parsons DW**, Wang TL, Samuels Y et al. Colorectal cancer: mutations in a signaling pathway. *Nature* 2005; 436: 792. PubMed PMID: 16094359.
11. Sjöblom T, Jones S, Wood LD, **Parsons DW*** et al. The consensus coding sequences of human breast and colorectal cancers. *Science* 2006; 314: 268-74. PubMed PMID: 16959974. *Co-first author.
12. Lin J, Gan CM, Zhang X, Jones S, Sjöblom T, Wood LD, **Parsons DW** et al. A multidimensional analysis of genes mutated in breast and colorectal cancers. *Genome Res* 2007; 17: 1304-1318. PubMed PMID: 17693572.
13. Wood LD, **Parsons DW***, Jones S, et al. The genomic landscapes of human breast and colorectal cancers. *Science* 2007; 318: 1108-13. PubMed PMID: 17932254. *Co-first author.
14. Segal NH, **Parsons DW**, Peggs KS, et al. Epitope landscape in breast and colorectal cancer. *Cancer Res* 2008; 68: 889-92. PubMed PMID: 18245491.
15. Jones S, Zhang X, **Parsons DW** et al. Core signaling pathways in human pancreatic cancers revealed by global genomic analyses. *Science* 2008; 321(5897): 1801-6. PubMed PMID: 18772397. *Co-first author.
16. **Parsons DW**, Jones S, Zhang X et al. An integrated genomic analysis of human glioblastoma multiforme. *Science* 2008; 321(5897): 1807-12. PubMed PMID: 18772396.
17. Leary RJ, Lin JC, Cummins J, Boca S, Wood LD, **Parsons DW** et al. Integrated analysis of homozygous deletions, focal amplifications and sequence alterations in breast and colorectal cancers. *Proc Natl Acad Sci USA* 2008; 105(42): 16224-9. PubMed PMID: 18852474.
18. Yan H, **Parsons DW*** et al. *IDH1* and *IDH2* mutations in gliomas. *New Eng J Med* 2009; 360(8): 765-73. PubMed PMID: 19996293. *Co-first author.
19. Jones S, Hruban RH, Kamiyama M, Borges M, Zhang X, **Parsons DW** et al. Exomic Sequencing Identifies *PALB2* as a Pancreatic Cancer Susceptibility Gene. *Science* 2009; 324(5924): 217. PubMed PMID: 19264984.

20. Blackford A, Parmigiani G, Kensler TW, Wolfgang C, Jones S, Zhang X, **Parsons DW** et al. Genetic mutations associated with cigarette smoking in pancreatic cancer. *Cancer Res* 2009; 69(8): 3681-8. PubMed PMID: 19351817.
21. Holdhoff M, **Parsons DW**, Diaz LA Jr. Mutations of *IDH1* and *IDH2* are not detected in brain metastases of colorectal cancer. *J Neurooncol* 2009; 94: 297. PubMed PMID: 19350208.
22. Blackford A, Serrano OK, Wolfgang CL, Parmigiani G, Jones S, Zhang X, **Parsons DW** et al. *SMAD4* gene mutations are associated with poor prognosis in pancreatic cancer. *Clin Cancer Res* 2009; 15: 4674-9. PubMed PMID: 19584151.
23. Yan H, Bigner DD, Velculescu V, **Parsons DW**. Mutant metabolic enzymes are at the origin of gliomas. *Cancer Res* 2009; 69(24): 9157-9. PubMed PMID: 19996293; PubMed PMID: 19228619.
24. Reitman ZJ, **Parsons DW**, Yan H. *IDH1* and *IDH2*: Not your typical oncogenes. *Cancer Cell*. 2010;17(3):215-6. PubMed PMID: 20227034.
25. **Parsons DW**. The evolving picture of the glioblastoma genome. *Oncotarget* 2010; 1(4): 237-8. PubMed PMID: 21304175.
26. **Parsons DW**, Li M, Zhang X et al. The Genetic Landscape of the Childhood Cancer Medulloblastoma. *Science* 2011; 331(6016):435-9. PubMed PMID: 21163964.
27. Joshi AD, **Parsons DW**, Velculescu VE, Riggins GJ. Sodium ion channel mutations in glioblastoma patients correlate with shorter survival. *Mol Cancer* 2011; 10(1):17. PubMed PMID: 21314958.
28. Jones S, Li M, **Parsons DW** et al. Somatic mutations in the chromatin remodeling gene *ARID1A* occur in several tumor types. *Hum Mutat* 2012; 33(1):100-3. PubMed PMID: 22009941.
29. Taylor MD, Northcott PA, Korshunov A, Remke M, Cho YJ, Clifford SC, Eberhart CG, **Parsons DW**, Rutkowski S, Gajjar A, Ellison DW, Lichter P, Gilbertson RJ, Pomeroy SL, Kool M, Pfister SM. Molecular subgroups of medulloblastoma: the current consensus. *Acta Neuropathol* 2012; 123(4):465-72. PubMed PMID: 22134537.
30. Chavan RS, Patel KU, Roy A, Thompson PA, Chintagumpala M, Goss JA, Nuchtern JG, Finegold MJ, **Parsons DW**, López-Terrada DH. Mutations of *PTCH1*, *MLL2*, and *MLL3* are not frequent events in hepatoblastoma. *Pediatr Blood Cancer* 2012; 58(6):1006-7. PubMed PMID: 22183980.

31. **Parsons DW**, Roy A, Plon SE, Roychowdhury S, Chinnaiyan AM. Clinical tumor sequencing: An incidental casualty of the American College of Medical Genetics and Genomics recommendations for reporting of incidental findings. *J Clin Oncol* 2014; 32(21):2203-5. PubMed PMID: 24958819.
32. Henderson GE, Wolf SM, Kuczynski KG, Joffe S, Sharp RR, **Parsons DW**, Knopper BM, Yu J-H and Appelbaum PS. The challenge of informed consent and return of results in translational genomics: Empirical analysis and recommendations. *J Law Med Ethics* 2014 Fall;42(3):344-55. PubMed PMID: 25264092.
33. Chakraborty R, Hampton OA, Shen X, Simko S, Shih A, Abhyankar H, Lim KPH, Covington KR, Trevino L, Dwal N, Muzny DM, Doddapaneni H, Hu J, Wang L, Lupo PJ, Hicks J, Bonilla DL, Dwyer KC, Berres M-L, Poulikakos PI, Merad M, McClain KL, Wheeler DA, Allen CE, **Parsons DW**. Mutually Exclusive Recurrent Somatic Mutations in *MAP2K1* and *BRAF* Support a Central Role for ERK Activation in LCH Pathogenesis. *Blood* 2014; 124(19):3007-15. PubMed PMID: 25202140.
34. Scollon S, Bergstrom K, Kerstein RA, Wang T, Hilsenbeck SG, Ramamurthy U, Gibbs RA, Eng CM, Chintagumpala MC, Berg SL, McCullough LB, McGuire AL, Plon SE, **Parsons DW**. Obtaining informed consent for clinical tumor and germline exome sequencing of newly diagnosed childhood cancer patients. *Genome Med* 2014 Sep17;6(9):69. doi: 10.1186/s13073-014-0069-3. eCollection 2014. PubMed PMID: 25317207.
35. Bainbridge MN, Armstrong GN, Gramatges MM, Bertuch AA, Jhangiani SN, Doddapaneni H, Lewis L, Tombrello J, Tsavachidis S, Liu Y, Jalali A, Plon SE, Lau CC, **Parsons DW** et al. Germline mutations in shelterin complex genes are associated with familial glioma. *J Natl Cancer Inst* 2014 Dec 7;107(1). PubMed PMID: 25482530.
36. Peters TE, Kumar V, Polikepahad S, Lin FY, Sarabia SF, Liang Y, Wang W-L, Lazar AJ, Doddapaneni H, Chao H, Muzny DM, Wheeler DA, Okcu MF, Plon SE, Hicks JM, López-Terrada D, **Parsons DW**, Roy A. *BCOR-CCNB3* fusions are frequent in undifferentiated sarcomas of male children. *Mod Pathol* 2015; 28(4):575-86. PMID: 25360585.
37. Cancer Genome Atlas Research Network. Comprehensive, integrative genomic analysis of diffuse lower-grade gliomas. *N Engl J Med* 2015; 372(26):2481-98. PubMed PMID: 26061751.
38. Berg SL, **Parsons DW**. The pharmacogenomics of vincristine-induced neuropathy: On pins and needles. *JAMA Oncol* 2015; 1(7):975-6. PubMed PMID: 26181361.
39. Scollon S, Bergstrom K, McCullough LB, McGuire AL, Gutierrez S, Kerstein R, **Parsons DW**, Plon SE. Pediatric Cancer Genetics Research and an Evolving

Preventive Ethics Approach for Return of Results after Death of the Subject. *J Law Med Ethics* 2015;43(3):529-37. PubMed PMID: 26479562.

40. Brothers KB, Holm IA, Childerhose JE, Antommara AH, Bernhardt BA, Clayton EW, Gelb BD, Joffe S, Lynch JA, McCormick JB, McCullough LB, **Parsons DW**, et al. When Participants in Genomic Research Grow Up: Contact and Consent at the Age of Majority. *J Pediatr*. 2015 Oct 15. pii: S0022-3476(15)01024-0. doi: 10.1016/j.jpeds.2015.09.020. [Epub ahead of print] PubMed PMID: 26477867.

41. Roy A, Kumar V, Zorman B, Fang E, Haines KM, Doddapaneni H, Hampton OA, White S, Bavle AA, Patel NR, Eldin KW, Hicks MJ, Rakheja D, Leavey PJ, Skapek SX, Amatruda JF, Nuchtern JG, Chintagumpala MM, Wheeler DA, Plon SE, Sumazin P, **Parsons DW**. Recurrent internal tandem duplications of *BCOR* in clear cell sarcoma of the kidney. *Nat Commun* 2015; 6:8891. doi: 10.1038/ncomms9891. PubMed PMID: 26573325.

42. McCullough LB, Slashinski MJ, McGuire AL, Street RL, Jr., Eng CM, Gibbs RA, **Parsons DW**, Plon SE. Is whole exome sequencing an ethically disruptive technology? Perspectives of pediatric oncologists and parents of pediatric patients with solid tumors. *Pediatr Blood Cancer* 2015 Oct 27. doi:10.1002/pbc.25815. [Epub ahead of print] PubMed PMID: 26505993.

43. Raymond VM, Gray SW, Roychowdhury S, Joffe S, Chinnaiyan AM, **Parsons DW**, Plon SE. Germline findings in tumor only sequencing; Points to consider for clinicians and laboratories. *J Natl Cancer Inst* 2015 Nov 20;108(4). pii: djv351. doi: 10.1093/jnci/djv351. Print 2016 Apr. PubMed PMID: 26590952.

44. Allen CE, **Parsons DW**. Biological and clinical significance of somatic mutations in Langerhans cell histiocytosis and related histiocytic neoplastic disorders. *Hematology Am Soc Hematol Educ Program*. 2015 Dec 5;2015(1):559-64. doi: 10.1182/asheducation-2015.1.559. PubMed PMID: 26637772.

45. **Parsons DW**, Roy A, Yang Y, et al. Diagnostic yield of clinical tumor and germline whole-exome sequencing for children with solid tumors. *JAMA Oncol* 2016 Jan 28. doi: 10.1001/jamaoncol.2015.5699. [Epub ahead of print] PubMed PMID: 26822237.

46. Bissig-Choisat B, Kettlun-Leyton C, Legras XD, Zorman B, Barzi M, Chen LL, Amin MD, Huang Y-H, Robia G, Pautler RG, Oliver A, Hampton OA, Masand M, Prakash MM, Yang D, Borowiak M, Muzny D, Doddapaneni H, Hu J, Shi Y, Gaber WM, Hicks MJ, Thompson PA, Lu Y, Mills GB, Finegold M, Goss JA, **Parsons DW**, Sanjeev A, Vasudevan SA, Sumazin P, Lopez-Terrada D, Bissig K-D. Novel patient-derived xenograft and cell line models for therapeutic testing of pediatric liver cancer. *J Hepatol*. Online 23 April 2016, <http://dx.doi.org/10.1016/j.jhep.2016.04.009>.

47. Hingorani P, Janeway K, Crompton BD, Kadoch C, Mackall CL, Khan J, Shern JF, Schiffman J, Mirabello L, Savage SA, Ladanyi M, Meltzer P, Bult CJ, Adamson PC, Lupo PJ, Mody R, DuBois SG, **Parsons DW**, et al. Current state of pediatric sarcoma biology and opportunities for future discovery: A report from the sarcoma translational research workshop. *Cancer Genet.* 2016 Apr 5. pii: S2210-7762(16)30039-4. doi: 10.1016/j.cancergen.2016.03.004. [Epub ahead of print] PubMed PMID: 27132463.

48. Lindsay H, Huang Y, Du Y, Braun FK, Teo WY, Kogiso M, Qi L, Zhang H, Zhao S, Mao H, Lin F, Baxter P, Su JM, Terashima K, Perlaky L, Chintagumpala M, Adesina A, Lau CC, **Parsons DW**, Li XN. Preservation of KIT genotype in a novel pair of patient-derived orthotopic xenograft mouse models of metastatic pediatric CNS germinoma. *J Neurooncol.* 2016 Mar 8. [Epub ahead of print] PubMed PMID: 26956263.

49. Green RC, Goddard KAB, Jarvik GP, Amendola LM, Appelbaum PS, Berg JS, Bernhardt BA, Biesecker LG, Biswas S, Blout CL, Bowling KM, Brothers KB, Burke W, Caga-Anan CF, Chinnaiyan AM, Chung WK, Clayton EW, Cooper GM, East K, Evans JP, Fullerton SM, Garraway LA, Garrett JR, Gray SW, Henderson GE, Hindorff LA, Holm IA, Lewis MH, Hutter CM, Janne PA, Joffe S, Kaufman D, Knoppers BM, Koenig BA, Krantz ID, Manolio T, McCullough L, McEwen J, McGuire A, Muzny D, Myers RM, Nickerson DA, Ou J, **Parsons DW**, et al for the CSER Consortium. The Clinical Sequencing Exploratory Research Consortium: Accelerating the evidence-based practice of genomic medicine. *Am J Hum Genet.* In press.

50. Bavle AA, Lin FY, **Parsons DW**. Applications of Genomic Sequencing in Pediatric CNS Tumors. *Oncology.* In press

III. TEACHING INFORMATION

A. Didactic course work

Facilitator, APEX small group session on end of life issues for fourth year BCM students
Course leader: Laura J. Morrison, M.D. (2010-2011)

Instructor, BCM Graduate Student and Postdoctoral Fellow Ethics Training sessions
Course leader: H.F. Gilbert, Ph.D. (2010-present)

Lecturer, BCM Introduction to Molecular Carcinogenesis graduate course
Course leader: Larry Donehower, Ph.D. (2010-present)

Lecturer, Pediatric Hematology-Oncology Fellowship Orientation: “Medulloblastoma and Ependymoma” (2011-present)

Lecturer, Pediatric Hematology-Oncology Fellowship Orientation: “Molecular Oncology” (2013-present)

Lecturer, BCM Fundamentals of Clinical Investigation course (2013)

Lecturer, BCM Translational Cancer Biology graduate course
Course leader: Jason Yustein, M.D., Ph.D. (2013-present)

Lecturer, BCM Neurobiology of Disease graduate course
Course leader: Jeffrey Noebels, M.D., Ph.D. (2013-present)

B. Curriculum development work

Not applicable.

C. Non-didactic teaching

1. Resident training

Not applicable.

2. Clinical Fellow training

Faculty Member, Clinical Fellow Reflective Practice & Leadership Seminar,
Department of Pediatrics, Hematology-Oncology Section (2011-present)

Member, Scholarship Oversight Committee, Clinical Fellows, Department of
Pediatrics, Hematology-Oncology Section:

- Melissa R. Delario, M.D. (2009-2011)
- Andras Heczey, M.D. (2010-2012)
- Mohammed Baki, M.D. (2010-2012)
- Vivien Sheehan, M.D. (2011-2012)
- Holly Lindsay, M.D. (2013-present)
- Sibio Zhao, M.D. (2014-present)

Primary Postdoctoral Research Mentor:

Rishikesh Chavan, M.D. (2010-2012)
Clinical Fellow, Department of Pediatrics, Hematology-Oncology Section
Current Position: Assistant Professor, Hematology-Oncology Section,
Tulane University School of Medicine (2012-present)

Frank Lin, M.D. (2011-2013)
Clinical Fellow, Department of Pediatrics, Hematology-Oncology Section
Current Position: Assistant Professor, BCM/Texas Children's Hospital

Abhishek Bavle, M.D. (2014-present)
Clinical Fellow, Department of Pediatrics, Hematology-Oncology Section

Samara Potter, M.D. (2015-present)
Clinical Fellow, Department of Pediatrics, Hematology-Oncology Section

Masters Thesis Research Mentor:

Divya Narayanan (2015-present)
U. Texas MD Anderson Cancer Center School of Health Professions

Co-Postdoctoral Research Mentor:

Ali Jalali, M.D. (2011-2013)
Department of Neurosurgery

3. Research Fellow training

Undergraduate Summer Research Mentor (2012):

James Webb
Alex's Lemonade Stand Foundation POST Fellowship Program

Undergraduate Summer Research Mentor (2015):

David Crawford (Baylor University)

High School Student Research Mentor (2012-2013)

Swathi Ariyapadi
Fort Bend ISD Gifted & Talented Mentorship Program

4. Graduate Student training

Member, Qualifying Examination Committee:

- Xiaotian Zhang, Molecular and Human Genetics (2011)
- Wenyi Zhu, Cell and Molecular Biology (2012)
- LaTerrica Williams, Translational Biology and Molecular Medicine (2012)
- Zachry Soens, Molecular and Human Genetics (2013)
- Katherine Haines, Molecular and Human Genetics (2013)
- Brittany Barreto, Molecular and Human Genetics (2014)
- Jarey Wang, Translational Biology and Molecular Medicine (2015)
- Wenjian Cao, Molecular and Human Genetics (2015)

Member, Dissertation Committee:

- Patricia Akinfenwa, Translational Biology and Molecular Medicine (2011-)
- Amritha Nair, Molecular and Human Genetics (2012-)
- Paul Fullerton, Molecular and Human Genetics (2013-)
- Wenyi Zhu, Cell and Molecular Biology (2013-)
- Katherine Haines, Molecular and Human Genetics (2014-)
- Nicholas Neill, Molecular and Human Genetics (2014-)
- Kyle Chang, UT Graduate School of Biomedical Sciences, Biostatistics, Bioinformatics and Systems Biology Program (2014-)
- Catlin Grzeskowiak, Molecular and Human Genetics (2014-)

- Michael Gundry, Molecular and Human Genetics (2015-)
- Jarey Wang, Translational Biology and Molecular Medicine (2015-)

Clinical Mentor, Translational Biology & Molecular Medicine program

- Patricia Akinfenwa (2011-2016)
- Karen Lim (2014-)

Co-Dissertation Mentor:

Katherine Haines, Molecular and Human Genetics (2014-)

Reading Course Mentor, Medical Scientist Training Program

- Michael Gundry (2012)
- Jarey Wang (2013)

5. Medical Student mentoring

Clinical and Research mentor (2011-)

Michael S. Abers

Elective Rotation Supervisor, Pediatric Oncology/Genomics (2014)

Valentin Barsan

D. Lectures

Not applicable.

E. Visiting professorships

Assistant Professor (Visiting), Division of Pediatric Oncology, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins (2008-2009)

IV. MEDICAL AND SERVICE INFORMATION

A. Patient care responsibilities at BCM (0% clinical effort in 2015-2016)

Not applicable.

B. Clinical laboratory responsibilities at BCM

Not applicable.

C. National education or voluntary health organization participation

Not applicable.

D. Administrative assignments at BCM

Co-Director, TCH/BCM Cancer Genomics Tumor Board (2013-)

Member, TCH Research IT Infrastructure Committee (2013-)

Steering Committee, Pediatrician Scientist Training and Development Program (2014-)

Faculty Operating Committee, BCM Medical Scientist Training Program (2015-)

E. Other pertinent information not given above

Co-Senior Author (with Murali Chintagumpala, M.D.), *Principles and Practice of Pediatric Oncology*, 7th edition (Philip A. Pizzo and David G. Poplack, editors).

- Chapter 26A: Gliomas, Ependymomas, and Other Nonembryonal Tumors of the Central Nervous System
- Chapter 26B: Embryonal Tumors of the Central Nervous System