

David H. Gutmann, MD, PhD

Donald O. Schnuck Family Professor
Department of Neurology

Director, Neurofibromatosis (NF) Center

Washington University School of Medicine
660 South Euclid Avenue, Box 8111
St. Louis, MO 63110



Tel: 314-362-7379 * Fax: 314-362-2388 * E-mail: gutmannd@wustl.edu

PERSONAL INFORMATION

Place of Birth: Cincinnati, Ohio

CITIZENSHIP USA, Germany

CURRENT POSITION

Donald O. Schnuck Family Professor
Director, Washington University Neurofibromatosis Center

EDUCATION

1977-1979 The University of Michigan, Ann Arbor, MI, B.S. in Comparative Physiology, Highest Honors

1979-1980 The University of Michigan, Ann Arbor, MI, M.S. in Human Genetics

1980-1984 The University of Michigan, Ann Arbor, MI, Ph.D. in Microbiology and Immunology (Thesis Advisor: John E. Niederhuber, M.D.)

1979-1986 The University of Michigan Medical School, Ann Arbor, MI, M.D., With Distinction

1986-1987 Internship, Internal Medicine, The Hospital of The University of Pennsylvania, Philadelphia, PA

1987-1990 Residency, Neurology, The Hospital of The University of Pennsylvania, Philadelphia, PA (Research Mentor: Kenneth H. Fischbeck, M.D.)

1990-1993 Postdoctoral Fellowship, Human Molecular Genetics, The Howard Hughes Medical Institute, The University of Michigan Medical Center, Ann Arbor, MI (Research Mentor: Francis S. Collins, M.D., Ph.D.)

ACADEMIC POSITIONS/EMPLOYMENT

1989-1990 Clinical Instructor, The University of Pennsylvania School of Medicine

1990-1992 Research Associate, Howard Hughes Medical Institute, The University of Michigan Medical Center, Ann Arbor, MI

1991-1993 Lecturer, Department of Neurology, The University of Michigan Medical Center, Ann Arbor, MI

1992-1993 Research Associate, Division of Medical Genetics, Department of Internal Medicine, The University of Michigan Medical Center, Ann Arbor, MI

1993-1998	Assistant Professor, Departments of Neurology, Pediatrics and Genetics, Washington University School of Medicine, St. Louis, MO
1998-2001	Associate Professor, Departments of Neurology, Pediatrics and Genetics, Washington University School of Medicine, St. Louis, MO
2001-	Full Professor, Departments of Neurology, Pediatrics, and Genetics, Washington University School of Medicine, St. Louis, MO
2015-2021	Vice Chair for Research Affairs, Department of Neurology, Washington University School of Medicine, St. Louis, MO
2017-2022	Visiting Scientist, Max Delbrück Center for Molecular Medicine, Berlin, GERMANY
2022-	Affiliate Faculty, School of Bioengineering, Washington University, St. Louis MO

UNIVERSITY & HOSPITAL APPTS AND COMMITTEES

Director, Neurofibromatosis Clinical Program, St. Louis Children's Hospital, 1994 to date
 Full Member, Washington University/Alvin J. Siteman Cancer Center, 1996 to date
 Co-Director, Neuro-Oncology, Washington University/Alvin J. Siteman Cancer Center, 2004-2013
 Member, Department of Neuroscience, Washington University, Invited Speaker Committee member, 2004-2007
 Director, Washington University Neurofibromatosis Center, 2004 to date
 Member, Executive Faculty Committee, Department of Neurology, 2005-2021
 Member, Genomics Curriculum Project Workgroup, 2007-2008
 Course Director, Neuro-Oncology Resident and Medical Student Elective, 2006 to date
 Member, Research Affairs Committee, Washington University School of Medicine, 2013-2016
 Selected Participant, Washington University Academic Medical Leadership Program, January-June 2014
 Member, Division of Biology and Biomedical Sciences Executive Faculty, 2014-2016
 Scientific Advisory Committee, Intellectual and Developmental Disabilities Research Center, 2014-2022
 Member, Promotions Committee, Department of Neurology, Washington University, 2015-2021
 Member, Promotions Committee, Department of Developmental Biology, Washington University, 2018, 2022
 Member, Diversity, Equity, Inclusion & Belonging (DEIB) Committee, Department of Neurology, Washington University, 2022-2023

MEDICAL LICENSURE AND BOARD CERTIFICATION

Medical licenses: Missouri (active), Illinois (active), Michigan (inactive), Pennsylvania (inactive)

Board certification: Neurology #35357

HONORS AND AWARDS

Gordon-Timmis Research Fellowship, 1977
 Michigan Alumni-Regents Scholarship, 1977
 Henry Ford Hospital Research Fellowship, 1978
 Campbell Cancer Research Fellowship, 1980, 1981, 1982, 1983
 March of Dimes Thomas Francis, Jr. Award, 1980
 Horace H. Rackham PreDoctoral Fellowship, 1982, 1983
 March of Dimes Young Investigator Award, FASEB Summer, 1993
 Peter A. Aron National Neurofibromatosis Foundation Award, 1994
 Elected Fellow, American Neurological Association, 1997
 National Neurofibromatosis Foundation Crystal Award, 1998
 Eliason Teaching Award, Department of Neurology, 1999

National Neurofibromatosis Foundation Center of Excellence Award, 2002
 Washington University School of Medicine Clinical Teacher of the Year Award, 2003
 American Society for Clinical Investigation, inducted 2003
 Award for Excellence in Pediatric Basic/Translational Research, Society for Neuro-Oncology, 2007
 Award for Excellence in Pediatric Translational Research, Society for Neuro-Oncology, 2008
 2010 Washington University/Siteman Cancer Center "Rock Doc"
 Children's Tumor Foundation Frederick Von Recklinghausen (Lifetime Achievement) Award, 2012
 Washington University Distinguished Faculty Research Award, 2013
 National Institute for Neurological Disorders and Stroke R35 Research Program (MERIT) Award, 2016
 Alexander von Humboldt Research Award, 2017
 Berlin Institute of Health Einstein Fellowship, 2017 to date
 Elected Fellow, American Academy of Neurology (AAN), 2018
 American Academy of Neurology Neuro-Oncology Scientific Award, 2020
 National Neurofibromatosis Network Advocate of Hope Award, 2020
 American Neurological Association triennial George W. Jacoby Award, 2020
 Elected Fellow, American Association for the Advancement of Science (AAAS), 2020
 Elected Fellow, Association of American Physicians (AAP), 2022
 Elected Member, National Academy of Medicine, 2022
 Mentor of the Year, Washington University Institute for Informatics, Data Science, and Biostatistics (I²DB), 2024

MAJOR INVITED PROFESSORSHIPS AND LECTURESHIPS

Decade of the Brain Plenary Session Speaker, American Academy of Neurology, 1996
 Carolyn Farb Endowed Lecture in Neurofibromatosis, MD Anderson Cancer Center, 1998
 Walker Lecturer in Neurofibromatosis, 1999
 Linse Block Neuro-oncology Visiting Professor, Mayo Clinic Foundation, 2001
 Manuel R. Gomez Named Visiting Professor, Mayo Clinic Foundation, 2006
 9th Annual Arthur and Sonia Labatt Brain Tumor Research Centre Lecturer, 2007
 Takao Hoshino Lectureship, University of California – San Francisco, 2008
 University of Arkansas MD/PhD Student Choice Speaker, 2010
 Pfizer Visiting Professor, University of Virginia, 2010
 16th Annual Sara Hertafeld Memorial Lectureship, University of Rochester, 2013
 Susan B. Stine Memorial Lectureship, Nemours Children's Health Center, 2013
 8th Annual Riley Church Guest Professor, Stanford University, 2014
 Oregon Society for Neuroscience Retreat Keynote speaker, 2015
 Society for Neuro-Oncology Abjhit Guha Award and Lecture, 2019
 Deborah Richman Distinguished Keynote Lectureship, MD Anderson Cancer Center, 2023
 Keynote Speaker, Oncology Models Forum, National Cancer Institute, 2023
 Max Kade Visiting Professor, Heidelberg University, GERMANY, 2024-2025

PROFESSIONAL ACTIVITIES

Ad Hoc Manuscript Reviewer

Annals of Neurology, Blood, Cancer Cell, Cancer Discovery, Cancer Research, Cell, Cell Stem Cell, Clinical Cancer Research, eLife, Experimental Neurology, Genes & Development, GLIA, Human Molecular Genetics, Journal of Clinical Investigation, Nature, Nature Communications, Nature Neuroscience, Nature Protocols, Nature Reviews Cell Biology, Nature Reviews Neuroscience, Neurobiology of Disease, Neurology, Neuron, Neuro-Oncology, Oncogene, Proc Natl Acad Sci USA, Science

Editorial Boards

Familial Cancer, 1998-2018

Neurobiology of Disease, 2000-2008
Associate Editor, Cancer Research, 2003-2013
Experimental Neurology, 2003-2011
Experimental Neurology, Section Editor, 2011-2012
GLIA, 2004-2023
Neuro-Oncology, 2005 to date
Disease Models and Mechanisms, 2008-2015; 2021 to date
Neuro-Oncology Advances, 2022 to date
Neuro-Oncology, Associate Editor, Cancer Neuroscience, 2025 to date
Disease Models and Mechanisms, Advisory Group, 2025 to date

Grant Reviewer

National Institutes of Health

NINDS, Special Emphasis Panel, 1996, 1997, 1988, 1999, 2001, 2003, 2004
 NINDS, CNBT study section, permanent (standing) member, 2005-2009
 NCI, Intramural Research Program Reviewer (Clinical Genetics), 2011
 NCI, Provocative Questions Initiative grant review panel, 2012
 NCI, New Innovator grant review panel, 2013
 NCI R21/R03 Omnibus review panel, 2014
 NCI, ZRG1 New Innovator Award (DP2) panel, 2014, 2015
 NCI, Intramural Research Program Reviewer (Childhood Cancer, Cancer Biology), 2015
 NINDS Advisory Council, member, 2015 (*ad hoc*), 2016-2019 (full appointment)
 NINDS, Research Program Award (R35) Special Emphasis Panel, 2020

Private Foundations

Israel Cancer Res. Fund, 2006-2008
 Chair, Drug Discovery Initiative, Children's Tumor Foundation, 2006-2008
 Children's Tumor Foundation, Drug Discovery Initiative, Chair, 2006-2008
 Goldhirsch Foundation, 2007-2009
 St. Jude Children's Research Hospital, Brain Tumor Program, External Review Panel, 2009
 Brain Tumors Funders Collective, 2009-2011
 American Association for Cancer Research Research Grants Scientific Review Committee (Basic Science, Clinical Translation, and Judah Folkman Awards), 2011-2019
 Society for Neuro-Oncology, Annual Meeting Abstract Review Committee, 2013 to date
 Alex's Lemonade Stand Foundation, Reviewer, 2014
 Children's Tumor Foundation, Annual Meeting Abstract Review Committee, 2015 to date
 Berlin Institute of Health, Excellence Award for Sex and Gender Aspects in Health Research, Evaluation Committee, 2019
 Alex's Lemonade Stand Foundation, Crazy 8 Initiative, Scientific Review Board, 2020
 International Society for Pediatric Neuro-Oncology Society, Abstract Review Committee, 2020, 2022, 2023
 American Association for Cancer Research, Pediatric Brain Tumor Research Grants Review Committee, 2019-2021
 Society for Neuro-Oncology, Cancer Neuroscience Track Chair, 2024-2026

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

American Academy of Neurology, 1987 to date
 American Association for the Advancement of Science, 2016 to date
 American Association for Cancer Research, active member, 1994 to date
 Society for Neuro-Oncology (founding member), 1995 to date
 American Neurological Association, 1997 to date

American Society for Clinical Investigation, 2003 to date
 German Neuroscience Society, 2018 to date
 Federation of European Neuroscience Societies, 2018 to date
 Association of American Physicians, 2022 to date
 National Academy of Medicine, 2022 to date

MEDICAL SCHOOL TEACHING RESPONSIBILITIES

2006-2020, "The Use of Mouse Models to Understand Human Disease", First Year Medical School Genetics Curriculum
 2006 to date, Course Director, Neuro-Oncology clinical elective for medical students and neurology residents

SERVICE

Vice-Chairman, Clinical Care Advisory Board, National Neurofibromatosis Foundation, 1996-2014
 Chairman, Optic Pathway Glioma Task Force, National Neurofibromatosis Foundation, 1995-2010
 Co-Moderator, Neurogenetics Session, American Society for Human Genetics Meeting, 1996
 National Neurofibromatosis Foundation, Research Advisory Board, 1997-2007
 Member, Professional Scientific Advisory Board, National Tuberous Sclerosis Association, 1997-2003
 Member, Research Advisory Board, National Neurofibromatosis Foundation, 1997-2004
 National Tuberous Sclerosis Association, Research Advisory Board, 1998-2003
 Member, Neuro-oncology Basic Science Committee, Radiation Therapy Oncology Group, 1999-2000
 Member, Hereditary Cancer Core Committee, Siteman Cancer Center, 2000-2006
 Member, Basic Science Committee, Society for Neuro-oncology, 1999-2002, 2006-2011
 Co-Organizer, NCI Mouse Models of Human Cancers Consortium Nervous System Tumors Workshops, 2002, 2005, 2007, 2010
 Chair, Society for Neuro-Oncology, Education Day Symposium, 2003-2005
 Member, Board of Directors, Society for Neuro-Oncology, 2003-2005
 Co-organizer, National Neurofibromatosis Foundation International Symposium on NF1 and NF2, 2003
 ASCI representative, FASEB, Science Policy Committee, 2004-2007
 Steering Committee, NCI Mouse Models of Human Cancers Consortium (MMHCC), 2004-2014
 Advisory Board, Mayo Clinic Foundation Brain Tumor SPORE, 2004-2008
 Medical Affairs Committee, National Neurofibromatosis Foundation, 2004-2008
 Co-Organizer, Mouse Models of NF-Associated Tumors Workshop, November 2005
 Co-Organizer, Juvenile Pilocytic Astrocytoma Workshop, May 2006
 Member, The Cancer Genome Atlas Steering Committee, National Cancer Institute, 2007-2016
 Co-Organizer, National Institutes of Health Symposium on mTOR signaling, January 2008
 Co-Organizer, James S. McDonnell Conference on Mathematical Modeling of Glioma, April 2009
 Member, Scientific Review Committee, American Association of Cancer Research, February 2010
 Co-Organizer, Mechanisms of Neural Differentiation and Brain Tumors, Cold Spring Harbor Laboratories, July 2010
 Chair, Neurofibromatosis Inc., Medical Advisory Board, 2010-2015
 Member, Education and Community Advisory Board, Jazz St. Louis, 2011-2023
 Co-Organizer, Mechanisms of Neural Differentiation and Brain Tumors, Cold Spring Harbor Laboratories, July 2012
 Scientific Program Committee, Pediatric Society for Neuro-Oncology Meeting, Ft. Lauderdale FLA, May 2013
 American Association for Cancer Research Annual Meeting Scientific Program Committee, 2013-2014
 Max Delbrück Center for Molecular Medicine, 2019 Brain Tumor Symposium, Co-organizer, 2017
 Member, Jazz St. Louis Board of Directors, 2020-2024
 Member, Arts and Healing Advisory Panel, Missouri Arts and Education Council, 2020-2023
 Chair, Development Committee, Jazz St. Louis, Board of Directors, 2021-2024
 Session Chair, Cold Spring Harbor Laboratory Biology of Cancer: Microenvironment and Metastasis Meeting, 2023
 Co-Organizer, Oncology Models Forum, National Cancer Institute, December 2023
 Co-Organizer, Mechanisms of Neural Differentiation and Brain Tumors, Cold Spring Harbor Laboratories, June 2024
 Co-Organizer, Cognition and behavior in Neurofibromatosis type 1, Cold Spring Harbor Laboratories, October 2024

RESEARCH SUPPORT**Active**

Co-PD, The Giorgio Foundation Dermal Neurofibroma Consortium, 2016-2024
 PI, Gilbert Family Foundation Vision Restoration Initiative, 2018-2025
 Investigator, Joseph Dougherty (PI, WUSM), Simons Foundation, Integrated analysis of mechanisms underlying sex epistasis in autism, 2021-2025
 Co-I, NINDS, Washington University Neurosurgery and Neurology Resident Research Education Program, 2020-2025, 2025-2030
 Co-PI, NCI, R01, Neuronal regulation of low-grade gliomagenesis, 2022-2027
 PI, Gilbert Family Foundation Brain Tumor Initiative, 2022-2025
 PI, NCI, R01, T cell regulation of low-grade glioma, 2022-2027
 Co-I, NINDS, R01, Personalized risk assessment in Neurofibromatosis type 1, 2023-2027
 Collaborator, Yuan Pan (PI, MDACC), Gilbert Family Foundation, Restoring dysregulated oligodendrocyte precursor cells in the NF1 optic nerve, 2023-2026
 Co-I, Department of Defense, Interrogating tumor-immune-neuron crosstalk at single cell resolution in a panel of novel somatic transgenic NF1 tumor models, 2023-2026
 PI, Establishing and Credentialing a Pediatric Low-Grade Glioma Xenograft Collection, Pediatric Brain Tumor Association, 2023-2026
 PI, Establishing Next-Generation Humanized Models of NF1 Brain Tumors for Preclinical Investigation. Gilbert Family Foundation, 2024-2027
 Co-PI, Next-Generation Preclinical Models of NF1 Brain Tumours, Gilbert Family Foundation, 2024-2027
 PI, Optimizing humanized preclinical low-grade glioma mouse models for immunologic targeting, Lindonlight Collective, 2025-2027

Past

Site PI, (B. R. Korf, PI), US Army Department of Defense, NF Clinical Trials Consortium, 2012-2017.
 Co-Investigator, (A. Stemmer-Rachamimov, PI), Children's Tumor Foundation, NF1-associated Gliomas Multicenter Consortium, 2012-2014.
 Co-Investigator, (D. Hambardzumyan, PI), NCI Tumor Microenvironment Network (TMEN) U01, Non-neoplastic cell types dictate gliomagenesis and response to therapy, 2012-2017.
 PI, James S. McDonnell Foundation, Brain Tumor Ecology Collective, 2013-2016.
 PI, Pediatric Brain Tumor Society, KIA1549: BRAF genetically engineered mice for pediatric glioma-targeted therapeutic drug discovery and evaluation, 2013-2015.
 PI, Department of Defense, Identifying Novel Glioma Therapeutic Targets Using An Ecosystems Approach, 2013-2016.
 PI, Alex's Lemonade Stand Foundation, "Developing Personalized (Precision) Medicine Strategies to Optimize Pediatric Brain Tumor Management, 2014-2016.
 PI, NCI, R01, Leveraging genetically engineered mice to optimize pediatric glioma management, 2015-2018.
 Co-PD, Children's Tumor Foundation Synodos NF1 Low-Grade Glioma Consortium, 2015-2018
 PI, NCI, R01, Defining risk factors for NF1-optic glioma, 2016-2022
 PI, Pediatric Low-Grade Astrocytoma Foundation, 2020-2023
 PI, Ian's Friends Foundation, 2021-2022
 PI, NINDS, R35, Defining the Mechanistic Basis for Neurofibromatosis-1 Nervous System Disease Heterogeneity, 2016-2024
 PI, Neurofibromatosis Therapeutic Acceleration Program, Leveraging human iPSCs to determine the impact of patient-derived *NF1* gene mutations on peripheral sensory neuron-driven Schwann cell growth, 2018-2024
 Co-PI, Hope Center for Neurological Disorders, Brain injury creates a supportive microenvironment for tumorigenesis, 2022-2024
 Co-I, Washington University ICTS, Characterization of autism-relevant phenotypes in Neurofibromatosis type 1 precision mouse models, 2023-2024

PATENTS & INVENTIONS

Neurofibromatosis Gene

U.S. Patent No. 5,859,195

Issued 1/12/99

Neurofibromin Pathway Modulators

U.S. Patent No. 8,101,606 B2

Issued 1/24/2012

Neurofibromin/Dopamine Signaling as a Biomarker for Cognitive and Behavioral Problems in Children with Neurofibromatosis Type 1

U.S. Patent No. 11,085,933

Issued 8/10/2021

Methods of Inhibiting Neuronal Activity in NF1 Tumors

U.S. Patent 20230190758A1 (non-provisional)

Filed 12/21/2022

Engineered cells, animal models, and uses thereof for modeling low grade glioma (LGG)

U.S. Patent 2023189773A1 (non-provisional)

Filed 12/21/2022

CLINICAL TITLE & RESPONSIBILITIES

Attending Neurologist – Barnes-Jewish Hospital and St. Louis Children’s Hospital

Medical Student and Neurology Resident Rotation Director, Neuro-Oncology

Director, Pediatric Neurofibromatosis Clinical Program, St. Louis Children’s Hospital

GRADUATE SCHOOL RESPONSIBILITIES

Division of Biology and Biomedical Sciences Graduate School Admissions Committee, 1996-1998 (3 years)

Member, Division of Biology and Biomedical Sciences Executive Council, Washington University, 2014-2016

Thesis Committees:

Paul Kotzbauer

Stacia Peiffer

Jennifer Doll (Chair)

John SunWoo (Chair)

Judy Cheng

Alexander Swirnoff

Vivek Gupta

Heming Xing

Dorothy Turetsky

Josh Hasbani

Ferrin Noonan

Paul Frohnert

Eunice Lee

Karolyn Au (Univ of Toronto)

Michelle Schlieff

Patricia Goldhof

Shannon Macauley

Priya Bhola (Univ of Toronto)

Mahil Rao

Namiko Abe

Liana Roberts-Stein (Chair)

Parul Kothari

Michael Vasek

Charles Shyng

Danny Abernathy

Breanna Harty

Fiona Coutinho (Univ of Toronto)

Jamie Grit (Van Ardle Cancer Center)

Verena Haage (Max Delbrück Center)

Patricia Rakopoulos (University of Toronto)

Aldrin Yim

Chris Yoon

Suppiah Suganth (University of Toronto)

Valentina Botero (Scripps Institute, Florida)

Matthaeus Ware (University of Toronto)

Current Trainees:**Postdoctoral Fellows**

Rasha Barakat, PhD

Alexander Chen, PhD (CRM and Cancer Biology T32 Training Grant Fellow)

Lori Forster, PhD (TriMED T32 Training Grant Fellow)

Vaishali Mulchandani, PhD (CRM Distinguished Postdoctoral Scholars [DPS] Program Fellow)

Shintaro Yamada, MD, PhD (Human Frontier Science Program and Japan Society for the Promotion of Science Fellow)

Staff Scientists

Jit Chatterjee, PhD

Enquan Xu, PhD

Xuanwei Li, MSBIS

Graduate Students

Rui Mu, MSBIS (Bioinformatics PhD Graduate Student)

Anthony Kirchner (Bioinformatics Masters Graduate Student)

Desiree Zanetti-Alepuz (Neuroscience PhD Graduate Student)

Medical Students

Miranda Mize

Ariel Brickler

Postgraduate Trainees

Talia Eligator (Developmental Biology, Post-Baccalaureate Fellow)

Chloe Kernan (WU-PREP, Post-Baccalaureate Fellow)

Laura Wang (Developmental Biology, Post-Baccalaureate Fellow)

Undergraduate Trainees

Angelica Barnes

Madeline Fialkow

Leah Karush

Joyce Lin

Megan Ouyang (ALSF POST fellow)

Maya Ryu

Paulina Situ

Hannah Wang (Roy & Diana Vangelos Fellow; ALSF POST fellow)

Christina Zhang

Past Trainees

Graduate Trainees	Fellowship	Current Position
Ezequiel Surace (PhD)		Investigator, CONCIET, Fleni, Argentina
Danielle Sandsmark (MSTP)		Associate Professor, Univ of Pennsylvania
Jourdan Stuart (MS)	CTSA TL1	Obstetrics, Univ of Pennsylvania
Cynthia Garcia (PhD)	NIH NRSA	Senior Medical Science Liaison
Ibrahim Hussein (MS)	Doris Duke	Neurosurgery Fellow, MSKCC
Anna Solga (PhD)		Print Scientist, Confluence Discovery Tech
Hugh Bender (PhD)	CTF YIA	Postdoctoral Fellow, UCSD
Lucy D'Agostino (MSBIS)		Assistant Professor, Wake Forest University
Michelle Wegscheid (MSTP)	CTF YIA	Resident, Radiology, Washington University
Xiaofan Guo (MD-PhD)	CSC Fellowship	Neurology Resident, Loma Linda Med School
Olivia Cobb (MSBIS)		Staff Bioinformatician, Neurology, WUSM
Alice Bewley (MSBIS)		Staff Bioinformatician, Medicine, WUSM
Rui Mu (MSBIS)		Staff Bioinformatician, Neurology, WUSM

Postdoctoral Trainees	Fellowship	Current Position
M. Livia Bajenaru, PhD	NIH F32 NRSA	Field Medical Director, Pfizer
Erik Uhlmann, MD, PhD	NIH F32 NRSA	Instructor, Harvard Medical School
Zhi-yong Huang, MD, PhD		Professor, Tongji Medical College
Victoria Hildebrandt Robb, PhD	NIH F32 NRSA	Director, KnowledgePoint360Group LLC
Biplab Dasgupta, PhD		Professor, Cincinnati Children's Hospital
Kevin C. Ess, MD, PhD		Professor, Vanderbilt University
Mukesh Sharma, PhD		Vice President, PierianDx
Girish Dagainakatte, PhD		Assoc Res Director, Aurigene Discovery Tech
Mark Gerber, PhD	NIH F32 NRSA	Field Application Scientist, 10X Genomics
Balazs Hegedus, PhD		Res. Scientist, Semelweiss University
Sean Houshmani, PhD	NIH F32 NRSA	Senior Director, HTG Molecular Diagnostics
Da Yong Lee, PhD	CTF YIA	Senior Researcher, KRIBB, Korea
Tu-Hsieh Yeh, MD, PhD		Chief of Neurology, Taipei Medical University
Sutapa Banerjee, PhD	CTF YIA	
Jacqueline Brown, PhD	NCI Diversity Supplement	Staff Scientist, Vanderbilt University
Aparna Kaul, PhD		Print Scientist, Confluence Discovery Tech
W. Winnie Pong, PhD	Keck Fellowship	Staff Writer, BioCentury
Yi-Hsien Chen, PhD	ABTA Fellowship	Co-Director, GEIC Center, WUSM
Kelly Diggs-Andrews, PhD	NCI Diversity Supplement	Founder, Diggs-Andrews Consulting LLC
Anthony Apicelli, MD, PhD	HHMI, Holman Fellowship	Assistant Professor, Radiation Oncology, WUSM
Corina Anastasaki, PhD	NCI R50	Research Assistant Professor, Neurology, WUSM
Sonika Dahiya, MD		Professor, Pathology, WUSM
Laura Smithson, PhD		Postdoctoral Fellow, University of Michigan
Patrick J. Cimino, MD, PhD		Assistant Professor, University of Washington
Angela C. Hirbe, MD, PhD	PSTP, K12, Francis Collins Award	Assistant Professor, Oncology, WUSM
Joseph Toonen, PhD	Vision Sciences, Neurology T32	Postdoctoral Fellow, Northwestern University
Yuan Pan, PhD	McDonnell Center Fellowship	Assistant Professor, MD Anderson Cancer Center
Stephanie Morris, MD	NSADA K12	Chief Medical Officer, Kennedy Krieger Institute
Nicole Brossier, MD, PhD	PSTP, K12, Francis Collins Award	Assistant Professor, Pediatrics, WUSM
Yunshuo Tang, MD, PhD	R25, K08, GFF VRI Award	Assistant Professor, Neurology, WUSM

BIBLIOGRAPHY

Current h-Index = 106 (SCOPUS); 98 (Web of Science); 129 (Google Scholar); i10-index = 509 (Google Scholar) – Apr 2025
ORCID = 0000-0002-3127-5045

Peer-reviewed Manuscripts

1. Groux N, **Gutmann DH**. Carcinoma of the lung. Physician Assistant-Health Care Practitioner 4:20-29, 1980.
2. Doneen BA, **Gutmann DH**. Lipid composition and *in vitro* biosynthetic rates of neutral lipids and phosphatidylcholine and anterior and posterior chambers of the goldfish swimbladder. Comparative Biochemistry and Physiology A 60:291-295, 1981.
3. Schook LB, Bingham EL, **Gutmann DH**, Niederhuber JE. Characterization and expression of H-2I region gene products on bone marrow derived macrophages. Eur J Immunol. 12:991-997, 1982. PMID: 6819150
4. **Gutmann DH**. The use of restriction endonucleases in the prenatal diagnosis of hemoglobinopathies. Am J Med Technol. 48:361-366, 1982. PMID: 6285741
5. **Gutmann DH**, Allen PM, Niederhuber JE. Separation of the immune response genes for LDH-B and MOPC-173. I. Description of an immune response defect in B10.BASR1. J. Immunol. 131:2919-2923, 1983. PMID: 6417235
6. **Gutmann DH**. Restriction Endonucleases. Am J Med Technol. 49:60, 1983. PMID: 6303123
7. **Gutmann DH**, Niederhuber JE. Separation of the immune response genes for LDH-B and MOPC-173: II. Description of an immune response defect in BIO.ASR7. J Immunol. 132:1955-1959, 1984. PMID: 6199419
8. Allen PM, **Gutmann DH**, Sher MR, Niederhuber JE. Characterization of the three new Intra-I-Region recombinant mouse strains, B10.ASr7 (H-2^{as3}), B10.BAR4 (H-2^{h4}), and B10.BASR1 (H-2^{as4}). Immunogenetics 19:175-178, 1984. PMID: 6421725
9. Schook LB, **Gutmann DH**, Marlin LE, Niederhuber JE. *In vitro* derived bone marrow macrophages: Expression of Ia antigens during macrophage differentiation. Transplantation 37:585-590, 1984. PMID: 6427997
10. **Gutmann DH**, Niederhuber JE. Separation of the immune response genes for LDH-B and MOPC-173. III. The failure of B10. BASR1 to respond to LDH-B is due to an antigen presenting cell defect. Transplantation 40:556-562, 1985. PMID: 2932822
11. **Gutmann DH**, Niederhuber JE. Major histocompatibility complex regulation of the immune response. J Surg Res. 39:172-181, 1985. PMID: 3894799
12. **Gutmann DH**, Beard BA, Collinge ML. Nonfatal disseminated mucocutaneous herpes simplex virus type 2 infection in an otherwise healthy woman presenting with a urinary tract infection. Obstetrics and Gynecology 72:506-508, 1988. PMID: 3405569
13. **Gutmann DH**, Fischbeck KH, Sergott RC. Hereditary vasculopathy with cerebral white matter lesions. Am J Med Genet. 34:217-220, 1989. PMID: 2817001
14. **Gutmann DH**, Scherer S. Ataxic hemiparesis syndrome: Localization to the corona radiata by magnetic resonance imaging. Stroke 20:1571-1573, 1989. PMID: 2815193
15. Raps EC, **Gutmann DH**, Brorson J, O'Connor MJ, Hurtig HH. Symptomatic hydrocephalus and reversible spinal cord deformity in Listeria monocytogenes meningitis. J Neurosurg. 71:620-622, 1989. PMID: 2795184
16. **Gutmann DH**, Fischbeck KH. Molecular biology of Duchenne and Becker Muscular Dystrophy: Clinical Applications. Ann Neurol. 26:189-194, 1989. PMID: 2673003
17. **Gutmann DH**, Fischbeck KH, Kamholz J. Complicated hereditary spastic paraparesis with cerebral white matter lesions. Am J Med Genet. 36:251-7, 1990. PMID: 2368815
18. **Gutmann DH**, Grossman RI, Mollman JE. Personality changes associated with thalamic infiltration. J Neuro-Oncol. 8:263-267, 1990. PMID: 2358857
19. **Gutmann DH**, Cantor CR, Piacente GJ, McCluskey LF. Isolated cerebral vasculopathy and infarction in a woman with carcinomatous meningitis. J Neuro-Oncol. 9:183-5, 1990. PMID: 2262804
20. **Gutmann DH**, Marino P. An alternative apnea test for the evaluation of brain death. Ann Neurol. 30:852-853, 1991. PMID: 1789700
21. **Gutmann DH**. Chromosome 11q23.3-qter deletion and Alexander's disease. Am J Med Genet. 39:226, 1991. PMID: 2063930
22. **Gutmann DH**, Zackai EH, McDonald-McGinn DM, Fischbeck KH, Kamholz J. Oculodentodigital dysplasia syndrome associated with abnormal cerebral white matter. Am J Medical Genetics 41:18-20, 1991. PMID: 1659191

23. **Gutmann DH**, Brooks ML, Emmanuel BS, McDonald-McGinn DM, Zackai EH. Congenital nystagmus in a (46XX, 45X) mosaic female from a family with X-linked congenital nystagmus. *Am J Medical Genetics* 39:167-169, 1991. PMID: 2063919
24. Yousem DM, **Gutmann DH**, Milestone BN, Lenkinski RE. Integrated magnetic resonance imaging and spectroscopy in a family with complicated hereditary spastic paraparesis. *Am J Neuroradiol.* 12:785-790, 1991. PMID: 1882768
25. **Gutmann DH**, Wood DL, Collins FS. Identification of the neurofibromatosis gene type 1 product. *Proc Natl Acad Sci USA* 88:9658-9662, 1991. PMID: 1946382
26. Marchuk DA, Saulino AM, Tavakkol R, Swaroop M, Wallace MR, Andersen LB, Mitchell AL, **Gutmann DH**, Boguski M, Collins FS. cDNA cloning of the type 1 neurofibromatosis gene: Complete sequence of the *NF1* gene products. *Genomics* 11:931-940, 1991. PMID: 1783401
27. Basu TN, **Gutmann DH**, Fletcher JA, Glover TW, Collins FS, Downward J. Aberrant regulation of ras proteins in tumor cells from type 1 neurofibromatosis patients. *Nature* 356:713-715, 1992. PMID: 1570015
28. **Gutmann DH**, Zackai EH, Emanuel BS. Congenital nystagmus in a (46XX, 45X) mosaic female from a family with X-linked congenital nystagmus: a reply. *Am J Med Genetics* 43:897, 1992. PMID: 2063919
29. **Gutmann DH**, Collins FS. Recent progress towards understanding the molecular biology of von Recklinghausen neurofibromatosis. *Ann Neurol* 31:555-561, 1992. PMID: 1596091
30. **Gutmann DH**, Boguski M, Marchuk D, Wigler M, Collins FS, Ballester R. Analysis of the neurofibromatosis type 1 (*NF1*) GAP-related domain by site directed mutagenesis. *Oncogene* 8:761-769, 1993. PMID: 8437860
31. Andersen LB, Ballester R, Marchuk DA, Chang E, **Gutmann DH**, Saulino AM, Camonis J, Wigler M, Collins FS. A conserved alternative splice in the von Recklinghausen neurofibromatosis (*NF1*) gene produces two neurofibromin isoforms, both with GAP activity. *Mol Cell Biol.* 13:487-495, 1993. PMID: 8417346
32. Gregory PE, **Gutmann DH**, Mitchell AL, Park S, Jacks T, Wood DL, Boguski M, Jove R, Collins FS. The neurofibromatosis type 1 gene product co-localizes with microtubules. *Somatic Cell and Molecular Genetics* 13:487-495, 1993. PMID: 8332934
33. Andersen LB, Fountain JW, **Gutmann DH**, Tarle SA, Glover TW, Dracopoli NC, Housman DE, Collins FS. Mutations in the neurofibromatosis 1 gene in sporadic malignant melanoma. *Nature Genetics* 3:118-121, 1993. PMID: 8499944
34. **Gutmann DH**, Andersen LB, Cole JL, Swaroop M, Collins FS. An alternatively spliced mRNA in the carboxy terminus of the neurofibromatosis type 1 (*NF1*) gene is expressed in muscle. *Hum Mol Genet.* 2:989-992, 1993. PMID: 8364582
35. **Gutmann DH**, Tennekoon GI, Cole JL, Collins FS, Rutkowski JL. Modulation of the neurofibromatosis type 1 (*NF1*) gene product, neurofibromin, during Schwann cell differentiation. *J Neurosci Res.* 36:216-223, 1993. PMID: 7505343
36. Boyer M, **Gutmann DH**, Collins F, Bar-Sagi D. Co-capping of neurofibromin, but not GAP, with surface immunoglobulins in B lymphocytes. *Oncogene* 9:349-357, 1994. PMID: 8290249
37. Nakamura T, Nemoto T, Arai M, Yamazaki Y, Kasuga T, **Gutmann DH**, Collins FS, Ishikawa T. Specific expression of the neurofibromatosis type 1 (*NF1*) gene in the hamster Schwann cell. *Am J Path.* 144:549-555, 1994. PMID: 8129040
38. **Gutmann DH**, Cole JL, Stone WJ, Ponder BAJ, Collins FS. Loss of neurofibromin in adrenal gland tumors from patients with neurofibromatosis type 1. *Genes, Chromosomes and Cancer* 10:55-58, 1994. PMID: 7519874
39. Yousem DM, **Gutmann DH**, Lenkinski RE. Limitations of Magnetic Resonance Spectroscopy in patients with white matter disease. *Ann Neurol.* 36:932-933, 1994. PMID: 7998784
40. **Gutmann DH**, Cole JL, Collins FS. Modulation of neurofibromatosis type 1 (*NF1*) gene expression during *in vitro* myoblast differentiation. *J. Neurosci Res.* 37:398-405, 1994. PMID: 8176761
41. **Gutmann DH**, Geist RT, Rose K, Wright DE. Expression of two new protein isoforms of the neurofibromatosis type 1 gene product, neurofibromin, in muscle tissues. *Dev Dynamics* 202:302-311, 1995. PMID: 7780179
42. **Gutmann DH**, Silos-Santiago I, Geist RT, Daras M, Rutkowski JL. Lack of *NF1* gene expression in a sporadic schwannoma from a patient without neurofibromatosis. *J Neuro-Oncol* 25:103-111, 1995. PMID: 8543966

43. **Gutmann DH**, Geist RT, Rose K, Wallin G, Moley JF. Loss of neurofibromatosis type 1 (NF1) gene expression in pheochromocytomas from patients without NF1. *Genes, Chromosomes and Cancer* 13:104-109, 1995. PMID: 7542904
44. **Gutmann DH**, Geist RT, Wright DE, Snider WD. Expression of the neurofibromatosis type 1 (NF1) isoforms in rat embryonic and adult tissues. *Cell Growth and Differentiation* 6:315-322, 1995. PMID: 7794799
45. Norton KK, Carey JC, **Gutmann DH**. Oculodentodigital dysplasia with cerebral white matter lesions in a two-generation family. *Am J Med Genet.* 57:458-461, 1995. PMID: 7677152
46. **Gutmann DH**, Wright DE, Geist RT, Snider WD. Expression of the neurofibromatosis 2 (NF2) gene isoforms during rat embryonic development. *Hum Mol Genet.* 4:471-478, 1995. PMID: 7795605
47. Norton KK, Xu J, **Gutmann DH**. Expression of the neurofibromatosis 1 gene product, neurofibromin, in blood vessel endothelial cells and smooth muscle. *Neurobiol Dis.* 2:13-21, 1995. PMID: 8980005
48. Hewett SJ, Choi DW, **Gutmann DH**. Increased expression of the neurofibromatosis 1 (NF1) tumor suppressor protein, neurofibromin, in reactive astrocytes in vitro. *NeuroReport* 6:1505-1508, 1995. PMID: 7579150
49. Geist RT, **Gutmann DH**. The tuberous sclerosis 2 gene is expressed at high levels in the adult cerebellum and developing spinal cord. *Cell Growth and Differentiation* 6:1477-1483, 1995. PMID: 8562486
50. Guha A, Lau N, Huvar I, **Gutmann DH**, Provias J, Pawson T, Boss G. Ras-GTP levels are elevated in human NF1 peripheral nerve tumors. *Oncogene* 12:507-513, 1996. PMID: 8637706
51. Giordano MJ, Mahadeo DK, He YY, Geist RT, Hsu C, **Gutmann DH**. Increased expression of the neurofibromatosis 1 (NF1) gene product, neurofibromin, in astrocytes in response to cerebral ischemia. *J Neurosci Res.* 43:246-253, 1996. PMID: 8820972
52. Feldkamp MM, Lau N, Provias JP, **Gutmann DH**, Guha A. Acute presentation of a neurogenic sarcoma in a patient with neurofibromatosis type 1: a pathological and molecular explanation. *J Neurosurg.* 84:867-873, 1996. PMID: 8622163
53. Norton KK, Mahadeo DK, Geist RT, **Gutmann DH**. Expression of the neurofibromatosis 1 (NF1) tumor suppressor gene product, neurofibromin, during growth arrest in fibroblasts. *NeuroReport* 7:601-604, 1996. PMID: 8730839
54. **Gutmann DH**, Giordano MJ, Mahadeo DK, Lau N, Silbergeld D, Guha A. Increased neurofibromatosis 1 gene expression in astrocytic tumors: positive regulation by p21-ras. *Oncogene* 12:2121-2107, 1996. PMID: 8668337
55. Platten M, Giordano MJ, Dirvem CMF, **Gutmann DH**, Louis DN. Upregulation of specific *NF1* gene transcripts in sporadic pilocytic astrocytomas. *Am J Pathol.* 149:621-627, 1996. PMID: 8702000
56. Geist RT, **Gutmann DH**. Expression of a developmentally regulated neuron-specific isoform of the neurofibromatosis 1 (NF1) gene. *Neuroscience Letters* 211:85-88, 1996. PMID: 8830850
57. Geist RT, Reddy AJ, Zhang J, **Gutmann DH**. Expression of the tuberous sclerosis 2 (TSC2) gene product, tuberlin, in adult and developing nervous system tissues. *Neurobiol Dis.* 3:111-120, 1996. PMID: 9173918
58. Gurney JG, Shannon KM, **Gutmann DH**. Juvenile xanthogranuloma, neurofibromatosis 1, and juvenile chronic myeloid leukemia. *Arch Dermatol.* 132:1390, 1996. PMID: 8915325
59. McDonald JW, Bautista RE, **Gutmann DH**. Pseudo-cervical cord syndrome: a deceptive flumazenil-reversible manifestation of hepatic encephalopathy. *Arch Neurol.* 53:956, 1996. PMID: 8859053
60. Scherer SS, **Gutmann DH**. Expression of the neurofibromatosis 2 tumor suppressor gene product, merlin, in Schwann cells. *J Neurosci Res.* 46:595-605, 1996. PMID: 8951671
61. **Gutmann DH**. Tumor suppressor genes as negative growth regulators in development and differentiation. *International Journal of Developmental Biology* 39:895-907, 1996. PMID: 8901192
62. Listernick R, Louis DN, Packer RJ, **Gutmann DH**. Optic pathway gliomas in children with neurofibromatosis 1: consensus statement from the NF1 optic pathway glioma task force. *Ann Neurol.* 41:143-149, 1997. PMID: 9029062
63. **Gutmann DH**, Giordano MJ, Fishback AS, Guha A. Loss of merlin expression in sporadic meningiomas, ependymomas and schwannomas. *Neurology* 49:267-270, 1997. PMID: 9222206
64. Weinecke R, Guha A, Maize JC, Heideman RL, DeClue JE, **Gutmann DH**. Reduced *TSC2* RNA and protein in sporadic astrocytomas and ependymomas. *Ann Neurol.* 42:230-235, 1997. PMID: 9266734
65. Xu HM and **Gutmann DH**. Mutations of the GAP-related domain impair the ability of neurofibromin to associate with microtubules. *Brain Res.* 759:149-152, 1997. PMID: 9219873
66. Saporito-Irwin SM, Geist RT, **Gutmann DH**. Ammonium acetate protocol for the preparation of plasmid DNA suitable for mammalian cell transfections. *Biotechniques* 23:424-427, 1997. PMID: 9298211

67. **Gutmann DH**, Aylsworth A, Carey JC, Korf B, Marks J, Pyeritz RE, Rubenstein A, Viskochil D. The diagnostic evaluation and multidisciplinary management of neurofibromatosis 1 and neurofibromatosis 2. *JAMA* 278:51-57, 1997. PMID: 9207339
68. **Gutmann DH**, Saporito-Irwin S, DeClue JE, Weinecke R, Guha A. Alterations in the rap1 signaling pathway are common in human gliomas. *Oncogene* 15:1611-1616, 1997. PMID: 9380414
69. Sherman L, Xu HM, Geist RT, Saporito-Irwin S, Howells N, Ponta H, Herrlich P, **Gutmann DH**. Interdomain binding mediates tumor growth suppression by the *NF2* gene product. *Oncogene* 15:2505-2509, 1997. PMID: 9395247
70. **Gutmann DH**. Psychiatry and care of patients with neurofibromatosis. *JAMA* 278:1494, 1997.
71. **Gutmann DH**. Molecular insights into neurofibromatosis 2. *Neurobiol Dis.* 3:247-221, 1997. PMID: 9173923
72. Vogelbaum MA, Tong JX, Higashikubo R, **Gutmann DH**, Rich KM. Transfection of C6 glioma cells with the *bax* gene result in increased sensitivity to treatments with cytosine arabinoside. *J Neurosurgery* 88:99-105, 1998. PMID: 9420079
73. Xu HM and **Gutmann DH**. Merlin differentially associates with the microtubule and actin cytoskeleton. *J Neurosci Res.* 51:403-415, 1998. PMID: 9486775
74. **Gutmann DH**, Geist RT, Xu HM, Kim JS, Saporito-Irwin S. Defects in neurofibromatosis 2 protein function can arise at multiple levels. *Hum Mol Genet.* 7:335-345, 1998. PMID: 9466988
75. Feldkamp MM, **Gutmann DH**, Guha A. Neurofibromatosis type 1: piecing the puzzle together. *Can J Neurosci.* 25:181-191, 1998. PMID: 9706718
76. **Gutmann DH**, Sherman L, Seftor L, Haipek C, Lu K-H, Hendrix M. Increased expression of the *NF2* suppressor gene product, merlin, impairs cell motility, adhesion and spreading. *Hum Mol Genet.* 8:267-276, 1999. PMID: 9931334
77. Strauss BL, **Gutmann DH**, Dehner LP, Hirbe A, Zhu X, Marley EF, Liapis H. Molecular analysis of malignant Triton tumors. *Hum Pathol.* 30:984-988, 1999. PMID: 10452514
78. **Gutmann DH**, Loehr A, Zhang Y, Kim J, Henkemeyer M, Cashen A. Haploinsufficiency for the neurofibromatosis 1 (NF1) tumor suppressor results in increased astrocyte proliferation. *Oncogene* 18:4450-4459, 1999. PMID: 10442636
79. Vogelbaum MA, Tong JX, Peroga R, **Gutmann DH**, Rich KM. Overexpression of *bax* in human glioma cell lines. *J Neurosurg.* 91:483-489, 1999. PMID: 10470825
80. Hung G, Faudoa R, Li XK, Xeu Z, Brackmann DE, Hitselberg W, Saleh E, Lee F, **Gutmann DH**, Slattery WJ, Rhim JS, Lim D. Establishment of primary vestibular schwannoma cultures from neurofibromatosis type-2 patients. *Int J Oncol.* 14:409-415, 1999. PMID: 10024671
81. Dugan LL, Kim JS, Zhang Y, Bart RD, Sun Y, Holtzman DM, **Gutmann DH**. Differential effects of cAMP in neurons and astrocytes - role of B-raf. *J Biol Chem.* 274:25842-25848, 1999. PMID: 10464325
82. **Gutmann DH**, Zhang Y, Hirbe A. Developmental regulation of a neuron-specific neurofibromatosis 1 (NF1) isoform. *Ann Neurol.* 46:777-782, 1999. PMID: 10553997
83. Liapis H, Dehner LP, **Gutmann DH**. Neurofibroma and cellular neurofibroma with atypia: a report of 14 tumors. *Am J Surg Pathol.* 23:1156-1158, 1999. PMID: 10478679
84. **Gutmann DH**, Haipek CA, Lu KH. The neurofibromatosis 2 tumor suppressor protein, merlin, forms two functionally important intramolecular associations. *J Neurosci Res.* 58:706-716, 1999. PMID: 10561699
85. Listernick R, Charrow J, **Gutmann DH**. Intracranial gliomas in NF1. *Am J Med Genet.* 89:38-44, 1999. PMID: 10469435
86. **Gutmann DH**, Zhang Y, Hasbani MJ, Goldberg MP, Plank TL, Henske, EP. Expression of the tuberous sclerosis complex (TSC) gene products, hamartin and tuberin, in central nervous system tissues. *Acta Neuropathologica* 99:223-230, 2000. PMID: 10663963
87. JL Rutkowski, Wu K, **Gutmann DH**, Boyer P, Legius E. Multiple mechanisms of benign tumor formation in neurofibromatosis 1. *Hum Mol Genet.* 9:1056-1066, 2000. PMID: 10767330
88. Waggoner DJ, Towbin J, Gottesman G, **Gutmann DH**. A clinic-based study of plexiform neurofibromas in neurofibromatosis 1. *Am J Med Genet.* 92:132-135, 2000. PMID: 10797438
89. King AA, DeBaun MR, Riccardi VM, **Gutmann DH**. Malignant peripheral nerve sheath tumors in neurofibromatosis 1. *Am J Med Genet.* 93:388-392, 2000. PMID: 10951462

90. **Gutmann DH**, Donahoe J, Brown T, James CD, Perry A. Loss of neurofibromatosis 1 (NF1) gene expression in NF1-associated pilocytic astrocytomas. *Neuropath Applied Neurobiol.* 26:361-367, 2000. PMID: 10931370
91. **Gutmann DH**, Donahoe J, Perry A, Lemke N, Gorse K, Kittiniyom K, Rempel SA, Gutierrez JA, Newsham IF. Loss of DAL-1, a Protein 4.1-related tumor suppressor, is an important early event in the pathogenesis of meningiomas. *Hum Mol Genet.* 9:1495-1500, 2000. PMID: 10888600
92. Lau N, Feldkamp MM, Roncari L, Loehr AH, Shannon P, **Gutmann DH**, Guha A. Loss of neurofibromin is associated with activation of ras/MAPK and PI3-K/Akt signaling in a neurofibromatosis 1 astrocytoma. *J Neuropath Exp Neurology* 59:759-767, 2000. PMID: 11005256
93. Scoles DR, Huynh DP, Chen MS, Burke SP, **Gutmann DH**, Pulst SM. The neurofibromatosis 2 (NF2) tumor suppressor protein interacts with hepatocyte growth factor-regulated tyrosine kinase substrate, HRS. *Hum Mol Genet.* 9:1567-1574, 2000. PMID: 10861283
94. Perry A, Cai DX, Scheithauer BW, Swanson PE, Lohse CM, Newsham IR, Weaver A, **Gutmann DH**. Merlin, DAL-1 and progesterone receptor expression in clinicopathologic subsets of meningioma: A correlative immunohistochemical study of 175 cases. *J Neuropath Exp Neurol.* 59:872-879, 2000. PMID: 11079777
95. Lim DJ, Rubenstein AE, Evans GE, Gusella JF, Jacks T, MacCollin M, Seizinger BG, Baser ME, Beebe D, Brackman DE, Chiocca EA, Fehon RG, Giovannini M, Glazer R, **Gutmann DH**, Korf B, Lieberman F, Martuza R, McClatchey AI, Parry DM, Pulst SM, Ramesh V, Ramsey J, Ratner N, Rutkowski JL, Ruttledge M, Weinstein DE. Recent advances in neurofibromatosis type 2 (NF2): A workshop report. *J Neurogenetics* 14:63-106, 2000. PMID: 10992163
96. **Gutmann DH**, Hirbe AC, Huang Z-y, Haipek CA. The Protein 4.1 tumor suppressor, DAL-1, impairs cell motility, but regulates proliferation in a cell type-specific fashion. *Neurobiol Dis.* 8:266-278, 2001. PMID: 11300722
97. Listernick R, Charrow J, **Gutmann DH**. Magnetic resonance findings and ophthalmologic abnormalities are correlated in patients with neurofibromatosis type 1 (NF1). *Am J Med Genet.* 102:105, 2001. PMID: 11471182
98. Bajenaru ML, Donahoe J, Corral T, Reilly KM, Brophy S, Pellicer A, **Gutmann DH**. Neurofibromatosis 1 (NF1) Heterozygosity results in a cell-autonomous growth advantage for astrocytes. *GLIA* 33:314-323, 2001. PMID: 11246230
99. Li J, Perry A, James CD, **Gutmann DH**. Cancer-related gene expression profiles in NF1-associated pilocytic astrocytomas. *Neurology* 56:885-890, 2001 (accompanying editorial; pages 827-829). PMID: 11294925
100. Morrison H, Sherman LS, Legg J, Banine F, Isacke C, Haipek CA, **Gutmann DH**, Ponta H, Herrlich P. The NF2 tumor suppressor gene product, merlin, mediates contact inhibition of growth through interactions with CD44. *Genes & Development* 15:968-980, 2001. PMID: 11316791
101. **Gutmann DH**, Haipek CA, Burke SP, Sun CX, Scoles DR, Pulst SM. The NF2 interactor, hepatocyte growth factor-regulated tyrosine kinase substrate (HRS), associates with merlin in the "open" conformation and suppresses cell growth and motility. *Hum Mol Genet.* 10:825-834, 2001. PMID: 11285248
102. Ding H, Roncari L, Shannon P, MacMaster S, Wu X, Lau N, Karaskova J, **Gutmann DH**, Squire JA, Nagy A, Guha A. Astrocyte-specific expression of activated p21-ras results in malignant astrocytoma formation in a transgenic mouse model of human gliomas. *Cancer Res.* 61:3826-3836, 2001. PMID: 11325859
103. Perry A, Roth KA, Banerjee R, **Gutmann DH**. NF1 deletions in S-100-positive and negative cells of sporadic and neurofibromatosis 1(NF1)-associated plexiform neurofibromas and MPNSTs. *Am J Pathol.* 159:57-61, 2001. PMID: 11438454
104. Scherer SS, Xu T, Crino P, Arroyo EJ, **Gutmann DH**. Ezrin, radixin and moesin are components of Schwann cell microvilli. *J Neurosci Res.* 65:150-164, 2001. PMID: 11438984
105. **Gutmann DH**, Hirbe AC, Haipek CA. Functional analysis of neurofibromatosis 2 (NF2) missense mutations. *Hum Mol Genet.* 10:1519-1529, 2001. PMID: 11448944
106. Li C, Cheng Y, **Gutmann DH**, Mangoura D. Differential localization of the neurofibromatosis 1 (NF1) gene product, neurofibromin, with the F-actin or microtubule cytoskeleton during differentiation of telencephalic neurons. *Developmental Brain Research* 130:231-248, 2001. PMID: 11675125
107. Perry A, Giannini C, Raghavan R, Scheithauer BW, Banerjee R, Margraf L, Bowers DC, Lytle RA, Newsham IF, **Gutmann DH**. Aggressive Phenotypic and Genotypic Features in Pediatric and NF2-Associated Meningiomas: A Clinicopathologic Study of 53 Cases. *J Neuropathol Exp Neurol.* 60:994-1003, 2001. PMID: 11589430

108. Kyin R, Hua Y, Baybis M, Scheithauer B, Kolson, D, Uhlmann EJ, **Gutmann, DH**, Crino, PB. Differential Expression of Neurotrophins in Tuberous Sclerosis Complex-Associated Cortical Tubers. *Am J Pathol.* 159:1541-1554, 2001. PMID: 11583980
109. Arbiser JL, Yeung R, Weiss SW, Arbiser ZK, Amin MB, Cohen C, Frank D, Mahajan S, Herron GS, Yang J, Onda H, Zhang HB, Bai X, Uhlmann E, Loehr A, Northrup H, Au P, Davis I, Fisher DE, **Gutmann DH**. The generation and characterization of a cell line derived from a sporadic renal angiomyolipoma: use of telomerase to obtain stable populations of cells from benign neoplasms. *Am J Pathol.* 159:483-491, 2001. PMID: 11485907
110. Uhlmann EJ, **Gutmann DH**. Tumor suppressor gene regulation of cell growth: Recent insights into neurofibromatosis 1 and 2 gene function. *Cell Biochem and Biophysics* 34:61-78, 2001. PMID: 11394441
111. Reed N, **Gutmann DH**. Tumorigenesis in neurofibromatosis: New insights & potential therapies. *Trends in Molecular Medicine.* 7:157-162, 2001. PMID: 11286939
112. **Gutmann DH**, Wu YL, Hedrick NM, Zhu Y, Guha A, Parada LF. Heterozygosity for the neurofibromatosis 1 (NF1) tumor suppressor results in abnormalities in cell attachment, spreading and motility in astrocytes. *Hum Mol Genet.* 10:3009-3016, 2001. PMID: 11751683
113. **Gutmann DH**. Neurofibromatosis: When less is more. *Hum Mol Genet.* 10:747-755, 2001. PMID: 11257108
114. MacCollin M, **Gutmann DH**, Korf B, Finkelstein R. Establishing priorities in neurofibromatosis research: a workshop summary. *Genet Med.* 3:212-217, 2001. PMID: 11388764
115. Sherman LS, **Gutmann DH**. Merlin: Hanging tumor suppression on the Rac. *Trends in Cell Biology* 11:442-445, 2001. PMID: 11684412
116. Huang Z-y, Baldwin RL, Hedrick NM, **Gutmann DH**. Astrocyte-specific expression of CDK4 is not sufficient for tumor formation but cooperates with p53 heterozygosity to provide a growth advantage for astrocytes *in vivo*. *Oncogene* 21:1325-1334, 2002. PMID: 11857076
117. **Gutmann DH**, Huang Z-y, Hedrick NM, Ding H, Guha A, Watson MA. Mouse glioma gene expression profiling identifies novel human glioma-associated genes. *Ann Neurol.* 51:393-405, 2002. PMID: 11891838
118. Uhlmann EJ, Apicelli AJ, Baldwin RL, Burke SP, Bajenaru ML, Onda H, Kwiatkowski D, **Gutmann DH**. Heterozygosity for the tuberous sclerosis complex (TSC) gene products results in increased astrocyte numbers and decreased p27-Kip1 expression in *TSC2*+/- cells. *Oncogene* 21:4050-4059, 2002. PMID: 12037687
119. Chan CC, Koch CA, Kaiser-Kupfer MI, Parry DM, **Gutmann DH**, Zhuang Z, Vortmeyer AO. Loss of heterozygosity for the *NF2* gene in retinal and optic nerve lesions of patients with neurofibromatosis 2. *J Pathol.* 198:14-20, 2002. PMID: 12210058
120. Ferner RE, **Gutmann DH**, Coffin C, Grimer R, Guha A, Judson I, Sandison A, Smith M, Viskochil D. International Consensus Statement on Malignant Peripheral Nerve Sheath Tumors in Neurofibromatosis 1. *Cancer Res.* 62:1573-1577, 2002. PMID: 11894862
121. Singh PK, **Gutmann DH**, Fuller CE, Newsham IF, Perry A. Differential involvement of Protein 4.1 family members, DAL-1 and NF2 in intracranial and intraspinal ependymomas. *Modern Pathol.* 15:526-31, 2002. PMID: 12011257
122. Friedman JM, Arbiser J, Epstein JA, **Gutmann DH**, Huot SJ, Lin A, McManus B, Korf BR. Cardiovascular disease in neurofibromatosis 1: Report of the NF1 cardiovascular task force. *Genetics in Medicine* 4:105-11, 2002. PMID: 12180143
123. Packer RJ, **Gutmann DH**, Rubenstein A, Viskochil D, Zimmerman RA, Vezina G, Small J, Korf B. Plexiform neurofibromas in NF1: Towards biologic-based therapy. *Neurology* 58:1461-1470, 2002. PMID: 12041525
124. **Gutmann DH**, Hedrick NM, Li J, Nagarajan R, Perry A, Watson MA. Comparative gene expression profile analysis of neurofibromatosis 1 (NF1)-associated and sporadic pilocytic astrocytomas. *Cancer Res.* 62:2085-2091, 2002. PMID: 11929829
125. Kalamirides M, Niwa-Kawakita M, Leblois H, Abramowski V, Perricaudet M, Janin A, Thomas G, **Gutmann DH**, Giovannini M. *Nf2* gene inactivation in arachnoidal cells is rate-limiting for meningioma development in the mouse. *Genes & Development* 16:1060-1065, 2002. PMID: 12000789
126. Baser ME, De Rienzo A, Altomare D, Balsara BR, Hedrick NM, **Gutmann DH**, Pitts LH, Jackler RK, Testa JR. Neurofibromatosis 2 and malignant mesothelioma. *Neurology* 59:290-291, 2002. PMID: 12136076

127. Bajenaru ML, Zhu Y, Hedrick NM, Donahoe J, Parada LF, **Gutmann DH**. Astrocyte-Specific Inactivation of the Neurofibromatosis 1 gene (*NF1*) is insufficient for astrocytoma formation. *Mol Cell Biol*. 22:5100-5113, 2002. PMID: 12077339
128. Uhlmann EJ, Wong M, Baldwin RL, Bajenaru ML, Onda H, Kwiatkowski DJ, Yamada K, **Gutmann DH**. Astrocyte-specific *TSC1* conditional knockout mice exhibit abnormal neuronal organization and seizures. *Ann Neurol*. 52:285-296, 2002. PMID: 12205640
129. Yu T, Robb VA, Singh V, **Gutmann DH**, Newsham IF. The 4.1/ezrin/radixin/moesin domain of the DAL-1/Protein 4.1B tumour suppressor interacts with 14-3-3 proteins. *Biochem J*. 365:783-9, 2002. PMID: 11996670
130. Watson MA, **Gutmann DH**, Peterson K, Chicoine MR, Kleinschmidt-DeMasters BK, Brown HG, Perry A. Molecular characterization of human meningiomas by gene expression profiling using high density oligonucleotide microarrays. *Am J Pathol*. 161:665-72, 2002. PMID: 12163391
131. Perry A, Kunz SN, Fuller CE, Banerjee R, Marley EF, Liapis H, Watson MA, **Gutmann DH**. Differential NF1, p16, and EGFR patterns by interphase cytogenetics (FISH) in malignant peripheral nerve sheath tumor (MPNST) and morphologically similar spindle cell neoplasms. *J Neuropathol Exp Neurol*. 61:702-9, 2002. PMID: 12152785
132. Woods SA, Marmor E, Feldkamp MM, Lau N, Apicelli AJ, Boss G, **Gutmann DH**, Guha A. Aberrant G-protein signaling in nervous system tumors. *J Neurosurg*. 97:627-42, 2002. PMID: 12296648
133. **Gutmann DH**, Rasmussen SA, Wolkenstein P, MacCollin MM, Guha A, Inskip PD, North KN, Poyhonen M, Birch PH, Friedman JM. Gliomas presenting after age ten in individuals with neurofibromatosis type 1 (NF1). *Neurology* 59:759-761, 2002. PMID: 12221173
134. **Gutmann DH**, Giovannini M. Mouse models of NF1 and NF2. *Neoplasia* 4:279-90, 2002. PMID: 12082543
135. Sun CX, Robb VA, **Gutmann DH**. Protein 4.1 tumor suppressors: Getting a FERM grip on growth regulation. *J Cell Sci*. 115:3991-4000, 2002. PMID: 12356905
136. Sun CX, Haipiek C, Scoles DR, Pulst SM, Giovannini M, Komada M, **Gutmann DH**. Functional analysis of the relationship between the neurofibromatosis 2 (NF2) tumor suppressor and its binding partner, hepatocyte growth factor-regulated tyrosine kinase substrate (HRS/HGS). *Hum Mol Genet*. 11:3167-3178, 2002. PMID: 12444101
137. Scoles DR, Nguyen VD, Qin Y, Sub C-X, Morrison H, **Gutmann DH**, Pulst S-M. Neurofibromatosis 2 (NF2) tumor suppressor schwannomin and its signaling protein HRS regulate STAT signaling. *Hum Mol Genet*. 11:3179-3189, 2002. PMID: 12444102
138. Lau N, Uhlmann EJ, von Lintig FC, Nagy A, Boss GR, **Gutmann DH**, Guha A. Rap1 activity is elevated in malignant astrocytomas independent of tuberous sclerosis complex-2 gene expression. *Int J Oncol*. 22: 195-200, 2003. PMID: 12469204
139. Huang Z-y, Wu Y, Hedrick N, **Gutmann DH**. T-cadherin-mediated cell growth regulation involves G₂ phase arrest and requires p21^{CIP1/WAF1} expression. *Mol Cell Biol*. 23:566-578, 2003. PMID: 12509455
140. Apicelli AJ, Uhlmann EJ, Baldwin RL, Ding H, Nagy A, Guha A, **Gutmann DH**. The role of Rap1 GTPase in astrocyte growth regulation. *GLIA* 42:225-234, 2003. PMID: 12673829
141. Ding H, Shannon P, Lau N, Wu X, Roncari L, Baldwin RL, Takebayashi H, Nagy A, **Gutmann DH**, Guha A. Oligodendrogliomas result from the expression of an activated mutant epidermal growth factor receptor in a RAS transgenic mouse astrocytoma model. *Cancer Res*. 63:1106-1113, 2003. PMID: 12615729
142. King A, Listernick R, Charrow J, Piersall L, **Gutmann DH**. Optic pathway gliomas in neurofibromatosis type 1: The effect of presenting symptoms on outcome. *Am J Med Genet*. 122:95-99, 2003. PMID: 12955759
143. **Gutmann DH**, Baker SJ, Giovannini M, Garbow J, Weiss W. Mouse Models of Human Cancers Consortium (MMHCC) symposium on nervous system tumors. *Cancer Res*. 63:3001-3004, 2003. PMID: 12782610
144. Robb VA, Li W, Gascard P, Perry A, N Mohandas, **Gutmann DH**. Identification of a third Protein 4.1 tumor suppressor, Protein 4.1R, in meningioma pathogenesis. *Neurobiol Dis*. 13:191-202, 2003. PMID: 12901833
145. Huang Z-y, Wu Y, Burke SP, **Gutmann DH**. The 43-kDa growth associated protein functions as a negative growth regulator in glioma. *Cancer Res*. 63:2933-2939, 2003. PMID: 12782600
146. Wong M, Ess KC, Uhlmann EJ, Jansen LA, Li W, Crino PB, Mennerick S, Yamada KA, **Gutmann DH**. Impaired astrocyte glutamate transport in a mouse epilepsy model of tuberous sclerosis. *Ann Neurol*. 54:251-256, 2003. PMID: 12891680

147. **Gutmann DH**, Winkeler E, Kabbarah O, Hedrick N, Dudley S, Goodfellow PJ, Liskay RM. Mlh1 deficiency accelerates myeloid leukemogenesis in neurofibromatosis 1 (*Nf1*) heterozygous mice. *Oncogene* 22:4581-4585, 2003. PMID: 12881715
148. Maldonado M, Newman D, Kolson DL, Chen W, **Gutmann DH**, Crino PB. Specific expression of ICAM-1, TNF- α , NF κ B and MAPK in human tuberous sclerosis complex (TSC)-associated tubers and in mice with conditional *Tsc1* inactivation. *Neurobiol Dis.* 14:279-290, 2003. PMID: 14572449
149. Angel P, Tabancay AP, Gau CL, Machado IMP, Uhlmann EJ, **Gutmann DH**, Guo L, Tamanoi F. Identification of dominant negative mutants of Rheb GTPase and their use to implicate the involvement of human Rheb in the activation of p70S6K. *J. Biol. Chem.* 278:39921-30, 2003. PMID: 12869548
150. **Gutmann DH**, James CD, Poyhonen M, Louis DN, Ferner R, Guha A, Hariharan S, Viskochil DV, Perry A. Molecular analysis of astrocytomas presenting after age 10 in individuals with NF1. *Neurology* 61:1397-1400, 2003. PMID: 14638962
151. Dasgupta B, Dugan LL, **Gutmann DH**. The neurofibromatosis 1 gene product neurofibromin regulates Pituitary Adenylate Cyclase-Activating Polypeptide-mediated signaling in astrocytes. *J Neurosci.* 23:8949-54, 2003. PMID: 14523097
152. Oh M-K, Scoles DR, Haipek C, Strand AD, **Gutmann DH**, Olson JM, Pulst S-M. Genetic heterogeneity of stably transfected cell lines revealed by expression profiling with oligonucleotide microarrays. *J Cellular Biochem.* 90:1068-78, 2003. PMID: 14624465
153. Bajenaru ML, Hernandez MR, Perry A, Zhu Y, Parada LF, Garbow JR, **Gutmann DH**. Optic nerve glioma in mice requires astrocyte *Nf1* gene inactivation and *Nf1* brain heterozygosity. *Cancer Res.* 63:8573-8577, 2003. [cover feature]. PMID: 14695164
154. Surace EI, Haipek CA, **Gutmann DH**. The effect of merlin phosphorylation on neurofibromatosis 2 (NF2) gene function. *Oncogene* 23: 580-7, 2004. PMID: 14724586
155. Ess KC, Uhlmann EJ, Li W, Li H, DeClue JE, Crino PB, **Gutmann DH**. Expression profiling in tuberous sclerosis complex (TSC) knockout mouse astrocytes to characterize human TSC brain pathology. *GLIA* 46: 28-40, 2004. PMID: 14999811
156. Spritz RA, Itin PH, **Gutmann DH**. Piebaldism and Neurofibromatosis Type 1: Horses of Very Different Colors. *J. Invest. Dermatol.* 122:xxxiv-xxxv, 2004. PMID: 15009761
157. Su W, **Gutmann DH**, Perry A, Abounader R, Latterra J, Sherman LS. A CD44-independent hepatocyte growth factor/c-Met autocrine loop promotes malignant peripheral nerve sheath tumor cell invasion. *GLIA* 45:297-306, 2004. PMID: 14730703
158. Chen Y, **Gutmann DH**, Haipek CA, Martinsen BJ, Bronner-Fraser M, Krull CE. Characterization of chicken *Nf2*/merlin indicates regulatory roles in cell proliferation and migration. *Developmental Dynamics* 229:541-54, 2004. PMID: 14991710
159. Robb, VA, Li W, **Gutmann DH**. Disruption of 14-3-3 binding does not impair Protein 4.1B growth suppression. *Oncogene* 23:3589-96, 2004. PMID: 15116094
160. Uhlmann EJ, Li W, Scheidenhelm D, Gau C-L, Tamanoi F, **Gutmann DH**. Loss of tuberous sclerosis complex 1 (*Tsc1*) expression results in increased Rheb/S6K pathway signaling important for astrocyte cell size regulation. *GLIA* 47:180-8, 2004. PMID: 15185396
161. Fedi M, Mitchell LA, Renate M, Kalnins RM, **Gutmann DH**, Perry A, Newton M, Brodtmann A, Berkovic SF. Glioneuronal Tumors in Neurofibromatosis Type 1: MRI-Pathological Study. *J Clin Neurosci.* 11:745-7, 2004. PMID: 15337138
162. Rong R, Surace EI, Haipek CA, **Gutmann DH**, Ye K. Serine 518 phosphorylation modulates merlin intramolecular association and binding to critical effectors important for *NF2* growth suppression. *Oncogene* 23:8447-54, 2004. PMID: 15378014
163. Surace EI, Lusic E, Murakami Y, Scheithauer BW, Perry A, **Gutmann DH**. Loss of tumor suppressor in lung cancer-1 (*TSLC1*) expression in meningioma correlates with increased malignancy grade and reduced patient survival. *J Neuropathol Exp Neurol.* 63:1015-1027, 2004. PMID: 15535129
164. Surace EI, Lusic E, Haipek CA, **Gutmann DH**. Functional significance of S6K overexpression in meningioma progression. *Ann Neurol.* 56:295-98, 2004. PMID: 15293284

165. Watson MA, Perry A, Tihan T, Prayson RA, Guha A, Bridge J, Ferner R, **Gutmann DH**. Gene expression profiling reveals unique molecular subtypes of neurofibromatosis type 1-associated and sporadic malignant peripheral nerve sheath tumors. *Brain Pathol.* 14: 297-303, 2004. PMID: 15446585
166. Listerick R, Ferner RE, Piersall LS, Sharif S, DH **Gutmann DH**, Charrow J. Late-onset optic pathway tumors in children with neurofibromatosis 1 (NF1). *Neurology* 63:1944-1946, 2004. PMID: 15557519
167. Singh V, Miranda TB, Jiang W, Frankel A, Roemer ME, Robb VA, **Gutmann DH**, Herschman HR, Clarke S, Newsham IF. The DAL-1/4.1B tumor suppressor interacts with protein arginine N-methyltransferase 3 (PRMT3) and inhibits its ability to methylate substrates in vitro and in vivo. *Oncogene* 23:7761-71, 2004. PMID: 15334060
168. Fraser MM, Zhu X, Kwon CH, Uhlmann EJ, **Gutmann DH**, Baker SJ. Pten loss causes hypertrophy and increased proliferation of astrocytes in vivo. *Cancer Res.* 64:7773-9, 2004. PMID: 15520182
169. Rong R, **Gutmann DH**, Ye K. The neurofibromatosis 2 tumor suppressor, merlin, inhibits PI 3-kinase through binding to PIKE-L. *Proc Natl Acad Sci USA* 101:18200-18205, 2004. PMID: 15598747
170. Bajenaru ML, Garbow JR, Perry A, Hernandez MR, **Gutmann DH**. Natural history of neurofibromatosis 1-associated optic nerve glioma formation in mice. *Ann Neurol.* 57:119-27, 2005. PMID: 15622533
171. Dasgupta B, Li W, Perry A, **Gutmann DH**. Glioma formation in neurofibromatosis 1 reflects preferential activation of K-RAS in astrocytes. *Cancer Res.* 65:236-45, 2005. PMID: 15665300
172. Robb VA, Gerber MA, Hart-Mahon EK, **Gutmann DH**. Membrane localization of the U2 domain of Protein 4.1B is necessary and sufficient for meningioma growth suppression. *Oncogene* 24:1946-57, 2005. PMID: 15688033
173. Kabbarah O, Sotelo AK, Mallon AN, Winkeler EL, Fan M-Y, Pfeiffer JD, Shibata D, **Gutmann DH**, Goodfellow PJ. Diethylstilbesterol effects and lymphomagenesis in *Mlh1*-deficient mice. *Int J Cancer* 115:666-669, 2005. PMID: 15700306
174. Perry A, Kurtkaya-Yapici O, Scheithauer BW, Robinson S, Prayson RA, Kleinschmidt-DeMasters BK, Stemmer-Rachamimov AO, **Gutmann DH**. Insights into meningioangiomatosis with and without meningioma: A clinicopathologic and genetic series of 24 cases with a review of the literature. *Brain Pathol.* 15:55-65, 2005. PMID: 15779237
175. Ess KC, Kamp CA, Tu BP, **Gutmann DH**. Developmental origin of subependymal giant cell astrocytoma in tuberous sclerosis complex. *Neurology* 64:1446-1449, 2005. PMID: 15851742
176. Scheidenhelm DK, Cresswell J, Haipek CA, Fleming TP, Mercer RW, **Gutmann DH**. Akt-dependent cell size regulation by the adhesion molecule on glia (AMOG) occurs independently of phosphatidylinositol 3-kinase and Rheb signaling. *Mol Cell Biol.* 25:3151-62, 2005. PMID: 15798201
177. Rajaram V, **Gutmann DH**, Prasad SK, Mansur D, Conboy JG, Perry A. Altered Protein 4.1 family member expression in ependymomas: A study of 84 cases. *Modern Pathology* 18:991-7, 2005. PMID: 15731777
178. Dasgupta B, Yi Y, Chen DY, Weber JD, **Gutmann DH**. Proteomic analysis reveals hyperactivation of the mTOR pathway in NF1-associated human and mouse brain tumors. *Cancer Res.* 65:2755-60, 2005. PMID: 15805275
179. Perry A, Lusic E, **Gutmann DH**. Meningothelial hyperplasia: A detailed clinicopathologic, immunohistochemical, and genetic study of 11 cases. *Brain Pathol.* 15:109-15, 2005. PMID: 15912882
180. Rubin JB, **Gutmann DH**. Neurofibromatosis 1: A model for nervous system tumour formation? *Nature Reviews Cancer* 5:557-564, 2005. PMID: 16069817
181. Yang G, Khalaf W, van de Locht L, Jansen JH, Gao M, Thompson MA, van der Reijden BA, **Gutmann DH**, Delwel R, Clapp DW, Hiebert SW. Transcriptional repression of the Neurofibromatosis-1 tumor suppressor by the t(8;21) fusion protein. *Mol Cell Biol.* 25:5869-79, 2005. PMID: 15988004
182. Dasgupta B, **Gutmann DH**. Neurofibromin regulates neural stem cell proliferation, survival, and astroglial differentiation in vitro and in vivo. *J Neurosci.* 25:5584-94, 2005. PMID: 15944386
183. Kuns R, Kissil JL, Newsham IF, Jacks T, **Gutmann DH**, Sherman LS. Protein 4.1B expression is induced in mammary epithelial cells during pregnancy and regulates their proliferation. *Oncogene* 24:6502-15, 2005. PMID: 16007173
184. Lusic EA, Watson MA, Chicoine MR, Lyman M, Roerig P, Reifenberger G, **Gutmann DH**, Perry A. Integrative Genomic Analysis Identifies *NDRG2* as a Candidate Tumor Suppressor Gene Frequently Inactivated in Clinically Aggressive Meningioma. *Cancer Res.* 65:7121-6, 2005. PMID: 16103061
185. Shannon P, Sabha N, Lau N, Kamnasaran D, **Gutmann DH**, Guha A. Pathological and molecular progression of astrocytomas in a GFAP:12V-Ha-RAS mouse astrocytoma model. *Am J Pathol.* 167:859-67, 2005. PMID: 16127163

186. Yamada D, Kikuchi S, Williams YN, Sakurai-Yageta M, Masuda M, Maruyama T, Tomita K, **Gutmann DH**, Kakizoe T, Kitamura T, Kanai Y, Murakami Y. Promoter Hypermethylation of the *DAL-1/4.1B* Gene is correlated with Poor Prognosis in Renal Clear Cell Carcinoma. *Int J Cancer* 118:916-23, 2005. PMID: 16152585
187. Jansen LA, Uhlmann EJ, Crino PB, **Gutmann DH**, Wong M. Epileptogenesis and reduced inward rectifier potassium current in tuberous sclerosis complex-1 deficient astrocytes. *Epilepsia* 46:1871-80, 2005. PMID: 16393152
188. Sharma MK, Zehnbauer BA, Watson MA, **Gutmann DH**. RAS pathway activation and an oncogenic RAS mutation in sporadic pilocytic astrocytoma. *Neurology* 65:1335-6, 2005. PMID: 16247081
189. Scoles DR, Qin Y, Nguyen V, **Gutmann DH**, Pulst SM. HRS inhibits EGF receptor signaling in the RT4 rat schwannoma cell line. *Biochemical and Biophysical Research Communications* 335:385-392, 2005. PMID: 16083858
190. Dasgupta B, Yi Y, Hegedus B, Weber JD, **Gutmann DH**. Cerebrospinal fluid proteomic analysis reveals dysregulation of methionine aminopeptidase-2 expression in human and mouse neurofibromatosis 1-associated glioma. *Cancer Res.* 65:9843-50, 2005. PMID: 16267007
191. Mawrin C, Schulz S, Hellwig-Pattik A, Kirches E, Roessner A, Lendeckel U, Firsching R, Vorwerk CK, Keilhoff G, Dietzmann K, Kluwe L, Lindberg G, **Gutmann DH**, Scheithauer B, Perry A. Expression and Function of Somatostatin Receptors in Peripheral Nerve Sheath Tumors. *J Neuropath Exp Neurol.* 64: 1080-1088, 2005. PMID: 16319718
192. Zhu Y, Harada T, Liu L, Lush ME, Guignard F, Harada C, Burns DK, Bajenaru ML, **Gutmann DH**, Parada LF. Inactivation of NF1 in CNS causes increased glial progenitor proliferation and optic glioma formation. *Development* 132:5577-5588, 2005. PMID: 16314489
193. Mangoura D, Sun Y, Li C, Singh D, **Gutmann DH**, Flores A, Ahmed M, Villianatos G. Phosphorylation of neurofibromin by PKC is a possible molecular switch in EGF receptor signalling in neural cells. *Oncogene* 25:735-45, 2006. PMID: 16314845
194. Sharma MK, Watson MA, Lyman M, Perry A, Aldape KD, Deak F, **Gutmann DH**. Matrilin-2 expression distinguishes clinically relevant subsets of pilocytic astrocytoma. *Neurology* 66:127-130, 2006. PMID: 16401863
195. **Gutmann DH**, Maher EA, Van Dyke T. Mouse Models of Human Cancers Consortium Workshop of Nervous System Tumors. *Cancer Res.* 66:10-13, 2006. PMID: 16397207
196. Miller SJ, Rangwala F, Williams J, Ackerman P, Kong S, Jegga A, Aronow B, Frahm S, Kluwe L, Mautner V, Upadhyaya M, Muir D, Wallace M, Hagen J, Quelle DE, Watson MA, Perry A, **Gutmann DH**, Ratner N. Large-scale molecular comparison of human Schwann cells to malignant peripheral nerve sheath tumor cells and tissues. *Cancer Res.* 66:2584-91, 2006. PMID: 16510576
197. Chadee DN, Hung G, Andalibi A, Lim DJ, Luo Z, **Gutmann DH**, Kyriakis JM. MLK3 regulates B-Raf through a mechanism that involves maintenance of the B-Raf/Raf-1 complex and inhibition by the NF2 tumor suppressor protein. *Proc Natl Acad Sci USA* 103:4463-8, 2006. PMID: 16537381
198. **Gutmann DH**, Hunter-Schaedle K, Shannon KM. Harnessing preclinical mouse models to inform human clinical cancer trials. *J Clin Invest.* 116:847-852, 2006. PMID: 16585951
199. Gerber MA, Bahr SM, **Gutmann DH**. Protein 4.1B/DAL-1 functions as a growth suppressor in meningioma cells by activating Rac1-dependent JNK signaling. *Cancer Res.* 66:5295-303, 2006. PMID: 16707455
200. Read TA, Hegedus B, Wechsler-Reya R, **Gutmann DH**. The Neurobiology of Neuro-Oncology. *Ann Neurol.* 60:3-11. 2006. PMID: 16802285
201. Wei Q, Clarke L, Scheidenhelm DK, Qian B, Tang A, Sabha N, Karim Z, Bock NA, Reti R, Swoboda R, Purev E, Bajenaru ML, Shannon P, Herlyn D, Kaplan D, Henkelman M, **Gutmann DH**, Guha A. High-grade glioma formation results from postnatal Pten loss or mutant epidermal growth factor receptor expression in a transgenic mouse glioma model. *Cancer Res.* 66:7429-37, 2006. PMID: 16885338
202. Leonard JR, Perry A, Rubin JB, King AA, Chicoine MR, **Gutmann DH**. The role of surgical biopsy in the diagnosis of glioma in individuals with neurofibromatosis-1. *Neurology* 67:1509-1512, 2006. PMID: 17060590
203. Surace EI, Strickland A, **Gutmann DH**, Naughton CK. Tslc1 (nectin-like molecule-2) is essential for spermatozoa motility and male fertility. *J Androl.* 27:816-825, 2006. PMID: 16837733
204. Houshmandi SS, Surace EI, Zhang H, Fuller GN, **Gutmann DH**. Tumor suppressor in lung cancer-1 (TSLC1) functions as a glioma tumor suppressor. *Neurology* 67:1863-66, 2006. PMID: 17130425

205. Spinner RJ, Scheithauer BW, Perry A, Amrami KK, Emnett R, **Gutmann DH**. Co-localized cellular schwannoma and plexiform neurofibroma in the absence of neurofibromatosis. *J Neurosurgery* 107:435-439, 2007. PMID: 17695403
206. Sharma MK, Mansur DB, Reifenberger G, Perry A, Leonard JR, Aldape KD, Albin MG, Emnett RJ, Loeser S, Watson MA, Nagarajan R, **Gutmann DH**. Distinct genetic signatures among pilocytic astrocytomas relate to their brain region origin. *Cancer Res.* 67:890-900, 2007. PMID: 17283119
207. Pelletier CL, Maggi LB, Scheidenhelm DK, **Gutmann DH**, Weber JD. Tuberous Sclerosis Complex-1 sets the rate of ribosome export and protein synthesis through nucleophosmin translation. *Cancer Res.* 67:1609-17, 2007. PMID: 17308101
208. Su W, Xing R, Guha A, **Gutmann DH**, Sherman LS. Mice with GFAP-targeted loss of neurofibromin demonstrate increased axonal MET expression with aging. *GLIA* 55:723-33, 2007. PMID: 17348023
209. Listerick R, Ferner RE, Liu GT, **Gutmann DH**. Optic pathway gliomas in neurofibromatosis-1: Controversies and recommendations. *Ann Neurol.* 61:189-98, 2007. PMID: 17387725
210. Sandsmark DK, Pelletier C, Weber JD, **Gutmann DH**. Mammalian target of rapamycin: Master regulation of cell growth in the nervous system. *Histology and Histopathology* 22:895-903, 2007. PMID: 17503347
211. Erbayat-Altay E, Zeng L-H, Xu L, **Gutmann DH**, Wong M. The natural history and treatment of epilepsy in a murine model of tuberous sclerosis. *Epilepsia* 48:1470-1476, 2007. PMID: 17484760
212. Banerjee D, Hegedus B, **Gutmann DH**, Garbow JR. Detection and measurement of neurofibromatosis-1 mouse optic glioma in vivo. *Neuroimage* 35:1434-7, 2007. PMID: 17383899
213. Daginakatte GC, **Gutmann DH**. Neurofibromatosis-1 (*Nf1*) heterozygous brain microglia elaborate paracrine factors that promote *Nf1*-deficient astrocyte and glioma growth. *Hum Mol Genet.* 16:1098-1112, 2007. PMID: 17400655
214. Sandsmark DK, Zhang H, Hegedus B, Pelletier CL, Weber JD, **Gutmann DH**. Nucleophosmin mediates mammalian target of rapamycin-dependent actin cytoskeleton dynamics and proliferation in neurofibromin-deficient astrocytes. *Cancer Res.* 67:4790-9, 2007. PMID: 17510408
215. Leonard JR, Ferner RE, Thomas N, **Gutmann DH**. Cervical cord compression from plexiform neurofibromas in neurofibromatosis-1. *Journal of Neurology, Neurosurgery, and Psychiatry* 78:1404-1406, 2007. PMID: 17635968
216. Zheng L-H, Ouyang Y, Gazit V, Cirrito JR, Jansen LA, Ess KC, Yamada KA, Wozniak DF, Holtzman DM, **Gutmann DH**, Wong M. Abnormal glutamate homeostasis and impaired synaptic plasticity and learning in a mouse model of tuberous sclerosis complex. *Neurobiol Dis.* 28:184-196, 2007. PMID: 17714952
217. Houshmandi SS, **Gutmann DH**. All in the family: Using inherited cancer syndromes to understand de-regulated cell signaling in brain tumors. *J. Cell. Biochem.* 102:811-819, 2007. PMID: 17721931
218. Warrington NM, Woerner BM, Daginakatte GC, Dasgupta B, Perry A, **Gutmann DH**, Rubin JB. Spatiotemporal differences in CXCL12 expression and cyclic AMP underlie the unique pattern of optic glioma growth in neurofibromatosis type 1. *Cancer Res.* 67:8588-8595, 2007. PMID: 17875698
219. Gilbertson RJ, **Gutmann DH**. Tumorigenesis in the brain: Location, location, location. *Cancer Res.* 67:5579-82, 2007. PMID: 17575119
220. Maurel P, Einheber S, Galinska J, Thaker P, Lam I, Rubin MB, Scherer SS, Murakami Y, **Gutmann DH**, Salzer JL. Nectin-like proteins mediate axon-Schwann cell interactions along the internode and are essential for myelination. *J Cell Biol.* 178:861-874, 2007. PMID: 17724124
221. Hegedus B, Dasgupta B, Shin JE, Emnett RJ, Hart-Mahon EK, Elghazi L, Bernal-Mizrachi E, **Gutmann DH**. Neurofibromatosis-1 regulates neuronal and glial cell differentiation from neuroglial progenitors in vivo by both cAMP- and Ras-dependent mechanisms. *Cell Stem Cell* 1:443-457, 2007. [cover feature]. PMID: 18371380
222. Tang X, Jang S-W, Wang X, Liu Z, Bahr SM, Sun S-Y, Brat D, **Gutmann DH**, Ye K. Akt phosphorylation regulates merlin tumor suppressor activity by mediating merlin ubiquitination and degradation. *Nature Cell Biology* 9:1199-1207, 2007. PMID: 17891137
223. Komine O, Nagaoka M, Watase K, **Gutmann DH**, Tanigaki K, Jonjo T, Radtke F, Saito T, Chiba S, Tanaka K. The monolayer formation of Bergmann glial cells is regulated by Notch/RBP-J signaling. *Dev Biol.* 311:238-250, 2007. PMID: 17915208
224. Lee DY, **Gutmann DH**. Cancer Stem Cells and Brain Tumors: Uprooting the Bad Seeds. *Expert Review of Anti-Cancer Therapy* 7:1581-1590, 2007. PMID: 18020926

225. Daginakatte GC, Gadzinski A, Emnett RJ, Stark JL, Gonzales ER, Yan P, Lee K-M, Cross AH, **Gutmann DH**. Expression profiling identifies a molecular signature of reactive astrocytes stimulated by cyclic AMP or proinflammatory cytokines. *Exp Neurol*. 210:261-267, 2008. PMID: 18054918
226. Yamanaka K, Chun SJ, Boillee S, Fujimori-Tonou N, Yamashita H, **Gutmann DH**, Takahashi R, Misawa H, Cleveland DW. Astrocytes as determinants of disease progression in inherited ALS. *Nature Neuroscience* 11:251-253, 2008. PMID: 18246065
227. Hegedus B, Banerjee D, Yeh T-H, Rothermich S, Perry A, Rubin JB, Garbow JR, **Gutmann DH**. Preclinical cancer therapy in a mouse model of neurofibromatosis-1 optic glioma. *Cancer Res*. 68:1520-8, 2008. PMID: 18316617
228. Rodriguez FJ, Perry A, **Gutmann DH**, O'Neill BP, Leonard J, Bryant S, Giannini C. Gliomas in neurofibromatosis type 1: a clinicopathologic study of 100 patients. *J Neuropath Exp Neurol*. 67:240-9, 2008. PMID: 18344915
229. Zeng L-H, Xu L, **Gutmann DH**, Wong M. Rapamycin prevents epilepsy in a mouse model of tuberous sclerosis complex. *Ann Neurol*. 63:444-453, 2008. PMID: 18389497
230. Elghazi L, Weiss AJ, Gould AP, Hegedus B, **Gutmann DH**, Bernal-Mizrachi E. Generation of a reporter mouse line expressing Akt and EGFP upon Cre-mediated recombination. *Genesis* 46:256-264, 2008. PMID: 18442046
231. Lau Y-KI, Murray L, Houshmandi SS, Xu Y, **Gutmann DH**, Yu Q. Merlin is a potent inhibitor of glioma growth. *Cancer Res*. 68:5733-5742, 2008. PMID: 18632626
232. Reilly KM, Rubin JB, Gilbertson RJ, Garbow JR, Roussel MF, **Gutmann DH**. Re-thinking brain tumors: The fourth mouse models of human cancers consortium nervous system tumors workshop. *Cancer Res*. 68:5508-5511, 2008. PMID: 18632599
233. Yan Q, Zhang Z-f, Chen X-p, **Gutmann DH**, Xiao Z-y, Zhan D-Q, Zhang Z-y. Reduced T-cadherin expression and promoter methylation are associated with the development and progression of hepatocellular carcinoma. *Int J Oncology* 32:1057-63, 2008. PMID: 18425332
234. Drogemuller K, Deckert M, Helmuth U, Sakowicz-Burkiewicz, Reinhold D, **Gutmann DH**, Mueller W, Schluter D. Astrocyte pp130 expression is critical for the control of *Toxoplasma* encephalitis. *J Immunol*. 181:2683-2693, 2008. PMID: 18684959
235. Deshmukh H, Yeh TH, Yu J, Sharma MK, Perry A, Leonard JR, Watson MA, **Gutmann DH***, Nagarajan R*. High resolution, dual platform aCGH analysis reveals frequent HIPK2 amplification and increased expression in pilocytic astrocytomas. *Oncogene* 27:4745-4751, 2008. *co-corresponding authors. PMID: 18408760
236. Patil S, Perry A, MacCollin M, Dong S, Betensky RA, Yeh T-H, **Gutmann DH**, Stemmer-Rachamimov. Immunohistochemical analysis supports a role for INI1/SMARCB1 in hereditary forms of schwannomas, but not in solitary, sporadic schwannomas. *Brain Pathol*. 18:517-519, 2008. PMID: 18422762
237. Tepel M, Roerig P, Wolter M, **Gutmann DH**, Perry A, Reifenberger G, Riemenschneider MJ. Frequent promoter hypermethylation and transcriptional down-regulation of the NDRG2 gene on 14q11.2 in primary glioblastoma. *Int J Cancer* 123:2080-2086, 2008. PMID: 18709645
238. Hegedus B, Yeh T-H, Lee DY, Emnett RJ, Li J, **Gutmann DH**. Neurofibromin regulates somatic growth through the hypothalamic-pituitary axis. *Hum Mol Genet*. 17:2955-2966, 2008. PMID: 18614544
239. Striedinger K, McDermott MW, VandenBerg SR, **Gutmann DH**, Lal A. The neurofibromatosis 2 tumor suppressor gene product, merlin, regulates human meningioma cell growth through YAP. *Neoplasia* 10:1204-1214, 2008. PMID: 18953429
240. Cui Y, Costa RM, Murphy GG, Elgersma Y, Zhu Y, **Gutmann DH**, Parada LF, Mody I, Silva AJ. Neurofibromin regulation of Ras/ERK signaling modulates GABA release and learning. *Cell* 135:549-560, 2008. PMID: 18984165
241. Rodriguez FJ, Giannini C, Asmann YW, Sharma MK, Perry A, Tibbetts KM, Jenkins RB, Scheithauer BW, Anant S, Jenkins S, Eberhart EG, Sarkaria JN, **Gutmann DH**. Gene expression profiling of NF1-associated and sporadic pilocytic astrocytomas identifies ALDH1L1 as an underexpressed candidate biomarker in aggressive astrocytoma subtypes. *J Neuropath Exp Neurol*. 67:1194-1204, 2008. [cover feature]. PMID: 19018242
242. Daginakatte GC, Gianino SM, Zhao NW, Parsadanian AS, **Gutmann DH**. Increased JNK signaling in Neurofibromatosis-1 (*Nf1*) heterozygous microglia drives microglia activation and promotes optic glioma proliferation. *Cancer Res*. 68:10358-10366, 2008. PMID: 19074905
243. Jost SC, Ackerman JW, Garbow JR, Manwaring LP, **Gutmann DH**, McKinstry RC. Diffusion-weighted and dynamic contrast-enhanced imaging as markers of clinical behavior in children with optic pathway glioma. *Pediatric Radiology* 38:1293-1299, 2008. PMID: 18846370

244. Filion C, Motoi T, Olshen A, Lae M, Emnett RJ, **Gutmann DH**, Perry A, Ladanyi M, Labelle Y. The EWSR1/NR4A3 fusion protein of extraskeletal myxoid chondrosarcoma activates the PPARG nuclear receptor: use of tumor expression profiles to guide the search for candidate transcriptional target genes. *J Pathol* 217:83-93, 2009. PMID: 18855877
245. Houshmandi SS, Emnett RJ, Giovannini M, **Gutmann DH**. The neurofibromatosis-2 protein, merlin, regulates glial cell growth in an ErbB2- and Src-dependent manner. *Mol Cell Biol*. 29:1472-86, 2009. PMID: 19103750
246. Tibbetts KM, Emnett RJ, Gao F, Perry A, **Gutmann DH**, Leonard J. Histopathologic predictors of pilocytic astrocytoma event-free survival. *Acta Neuropathologica* 117:657-665, 2009. PMID: 19271226
247. Hegedus B, Hughes WF, Garbow JR, Gianino S, Banerjee D, Kim K, Ellisman MH, Brantley MA, **Gutmann DH**. Optic nerve dysfunction in a mouse model of neurofibromatosis-1 optic glioma. *J Neuropathol Exp Neurol*. 68:542-551, 2009. [cover feature]. PMID: 19525901
248. Yeh T-H, Lee DY, Gianino SM, **Gutmann DH**. Microarray analyses reveal regional astrocyte heterogeneity with implications for neurofibromatosis type 1 (NF1)-regulated glial proliferation. *GLIA* 57:1239-49, 2009. PMID: 19191334
249. Nunley KS, Gao F, Albers AC, Bayliss SJ, **Gutmann DH**. Predictive value of café-au-lait macules at initial consultation in the diagnosis of neurofibromatosis type 1. *Arch Dermat*. 145:883-887, 2009. PMID: 19687418
250. Dickinson PJ, Surace EI, Cambell M, Higgins RJ, Leutenegger CM, Bollen AW, LeCouteur RA, **Gutmann DH**. Expression of the tumor suppressor genes NF2, 4.1B, and TSLC1 in canine meningiomas. *Vet Pathol*. 46:884-892, 2009. PMID: 19429976
251. Mawrin C, Wolke C, Haase D, Kruger S, Firsching R, Keilhoff G, Paulus W, **Gutmann DH**, Lal A, Lendeckel U. Reduced activity of CD13/aminopeptidase N (APN) in aggressive meningiomas is associated with increased levels of SPARC. *Brain Pathol*. 20:200-10, 2010. PMID: 19236378
252. Yu J, Deshmukh H, Gutmann RJ, Emnett RJ, Rodriguez FJ, Watson MA, Nagarajan R, **Gutmann DH**. Alterations of *BRAF* and *HIPK2* loci predominate in sporadic pilocytic astrocytoma. *Neurology* 73:1526-31, 2009. [chosen for editorial] PMID: 19794125
253. Darken R, Bogitch R, Leonard J, Perry A, McKinstry RC, **Gutmann DH**, Rubin JB. Brainstem glioma presenting as pruritus in children with neurofibromatosis-1. *J Ped Hem-Onc*. 31:972-976, 2009. PMID: 19935099
254. Bhola P, Banerjee S, Mukherjee J, Balasubramaniam A, Arun V, Karim Z, Burrell K, Croul S, **Gutmann DH**, Guha A. Preclinical in vivo evaluation of rapamycin in human malignant peripheral nerve sheath tumor explant xenografts. *Int J Cancer* 126:563-71, 2010. PMID: 19634141
255. Schiffman JD, Hodgson JG, Vandenberg SR, Flaherty P, Polley M-YC, Yu M, Fisher PG, Rowitch DH, Ford JM, Berger MS, Ji H, **Gutmann DH**, James CD. Combined oncogenic *BRAF* mutation and *CDKN2A* inactivation is characteristic of a subset of pediatric malignant astrocytomas. *Cancer Res* 70:512-519, 2010. PMID: 20068183
256. Rauen KA, Schoyer L, McCormick F, Lin AE, Allanson JE, Stevenson DA, Gripp KW, Neri G, Carey JC, Legius E, Tartaglia M, Schubert S, Robert AE, Gelb BD, Shannon K, **Gutmann DH**, McMahon M, Guerra MC, Fagin JA, Yu B, Aoki Y, Neel BG, Balmain A, Drake DR, Nolan GP, Zenker M, Bollag G, Sebolt-Leopold J, Gibbs JB, Silva AJ, Patton EE, Viskochil DH, Kieran MW, Korf BR, Hagerman RJ, Packer RJ, Melese T. Proceedings from Genetic Syndromes of the Ras/MAPK Pathway: From Bedside to Bench and Back 2009. *Am J Med Genet A* 152A:4-24, 2010. PMID: 20014119
257. Claus EB, Abdel-Wahab M, Burger PC, Engelhard HH, Ellison DW, Gaiano N, **Gutmann DH**, Heck D, Holland EC, Jallo GI, Kruchko C, Kun LE, Maria BL, Rumbolt Z, Spinella GM, Stopfel L, Wechsler-Reya R, Wensch M, Gilbertson RJ. Defining Future Directions in Spinal Cord Tumor Research: National Institutes of Health Workshop Report. *J Neurosurg Spine* 12:117-121, 2010. PMID: 20121344
258. Banerjee S, Byrd JN, Gianino SM, Harpstrite SE, Rodriguez FJ, Tuskan RG, Reilly KM, Piwnicka-Worms DR, **Gutmann DH**. Neurofibromin controls cell growth by regulating STAT3 activity *in vitro* and *in vivo*. *Cancer Res* 70:1356-66, 2010. PMID: 20124472
259. Brown JA, Gianino SM, **Gutmann DH**. Defective cyclic AMP generation underlies the sensitivity of central nervous system neurons to neurofibromatosis-1 heterozygosity. *J Neurosci* 30:5579-89, 2010. PMID: 20410111
260. Haase D, Schmiidl S, Ewald C, Kalff R, Huebner C, Firsching R, Keilhoff G, Evert M, Paulus W, **Gutmann DH**, Lal A, Mawrin C. Fatty acid synthase as a novel target for meningioma therapy. *Neuro-Oncology* 12:844-54, 2010. PMID: 20511185

261. Sun T, Gianino SM, Jackson E, Piwnica-Worms D, **Gutmann DH**, Rubin JB. CXCL12 alone is insufficient for gliomagenesis in *Nf1* mutant mice. *J. Neuroimmunol.* 224:108-13, 2010. PMID: 20554030
262. Bottelbergs A, Verheijden S, Hulshagen L, **Gutmann DH**, Goebbels S, Nave K-A, Kassman C, Baes M. Axonal integrity in the absence of functional peroxisomes from projection neurons and astrocytes. *GLIA* 58:1532-43, 2010. PMID: 20578053
263. Warrington NM, Gianino SM, Jackson E, Goldhoff P, Garbow JR, Piwnica-Worms D, **Gutmann DH**, Rubin JB. Cyclic AMP suppression is sufficient to induce gliomagenesis in a mouse model of neurofibromatosis-1. *Cancer Res* 70:5717-27, 2010. PMID: 20551058
264. Kim K-Y, Ju WK, Hegedus B, **Gutmann DH**, Ellisman ME. Ultrastructural Characterization of the Optic Pathway in a Mouse Model of Neurofibromatosis-1 Optic Glioma. *Neuroscience* 170:178-88, 2010. [chosen for cover art] PMID: 20600672
265. Scott A, Powner MB, Gandhi P, Clarkin C, **Gutmann DH**, Johnson R, Ferrara N, Fruttiger M. Astrocyte-derived vascular endothelial growth factor stabilizes vessels in the developing retinal vasculature. *PLOS One* 5:e11863, 2010. PMID: 20686684
266. Dorward IG, Luo J, Perry A, **Gutmann DH**, Mansur DB, Rubin JB, Leonard JR. Post-operative imaging surveillance in pediatric pilocytic astrocytomas. *J. Neurosurg. Ped.* 6:346-52, 2010. PMID: 20887107
267. Lee DY, Yeh T-H, Emnett RJ, White CR, **Gutmann DH**. Neurofibromatosis-1 regulates neuroglial progenitor proliferation and glial differentiation in a brain region-specific manner. *Genes & Development* 24:2317-29, 2010. [chosen for *Perspectives* commentary] PMID: 20876733
268. Brown JA, Emnett RJ, White C, Yuede C, Conyers S, O'Malley K, Wozniak DF, **Gutmann DH**. Reduced striatal dopamine underlies the attention system dysfunction in neurofibromatosis-1 mutant mice. *Human Mol Genet.* 19:4515-28, 2010. PMID: 20826448
269. Gibson P, Tong Y, Robinson G, Thompson M, Currle DS, Eden C, Hogg T, Martin J, Lee Y, Zindy F, Finkelstein D, Pounds S, Patay Z, Scoggins M, Ogg R, Lindsay JC, **Gutmann DH**, Boop FA, Sanford RA, Gajjar A, Clifford SC, Roussel M, McKinnon PJ, Taketo MM, Ellison DW, Wechsler-Reya R, Gilbertson RJ. Subtypes of medulloblastoma are different diseases. *Nature* 468:1095-9, 2010. PMID: 21150899
270. Wang L, **Gutmann DH**, Roos RP. Astrocyte loss of mutant SOD1 delays ALS disease onset and progression in G85R transgenic mice. *Human Mol Genet.* 20:286-93, 2011. PMID: 20962037
271. Zeng L-H, Rensing NR, Zhang B, **Gutmann DH**, Gambello MJ, Wong M. *Tsc2* gene inactivation causes a more severe epilepsy phenotype than *Tsc1* inactivation in a mouse model of Tuberous Sclerosis Complex. *Hum Mol Genet.* 20:445-54, 2011. PMID: 21062901
272. Payton JE, Schmidt J, Yu J, Lusic EA, Watson MA, **Gutmann DH**. Genome-wide polymorphism analysis demonstrates a monoclonal origin of pilocytic astrocytoma. *Neuropathology and Applied Neurobiology* 37:321-5, 2011. PMID: 20646217
273. Zhan Y, Modi N, Stewart AM, Hieronimus RL, Liu J, **Gutmann DH**, Chadee DN. Regulation of Mixed Lineage Kinase 3 is required for Neurofibromatosis-2-Mediated Growth Suppression in Human Cancer. *Oncogene* 30:781-9, 2011. PMID: 20890305
274. Stuart JE, Lusic EA, Scheck AC, Coons SW, Lal A, Perry A, **Gutmann DH**. Identification of gene markers associated with aggressive meningioma by filtering across multiple sets of gene expression arrays. *J Neuropathol Exp Neurol.* 70:1-12, 2011. PMID: 21157382
275. Simmons GW, Pong WW, Emnett RJ, White CR, Gianino SM, Rodriguez FJ, **Gutmann DH**. Neurofibromatosis-1 heterozygosity increases microglia in a spatially- and temporally restricted pattern relevant to mouse optic glioma formation and growth. *J Neuropathol Exp Neurol.* 70:51-62, 2011. PMID: 21157378
276. Banerjee S, Gianino SM, Gao F, Christians U, **Gutmann DH**. Interpreting mammalian target of rapamycin and cell growth inhibition in a genetically engineered mouse model of *Nf1*-deficient astrocytes. *Mol Cancer Ther* 10:279-91, 2011. PMID: 21216928
277. Crouse NR, Dahiya S, **Gutmann DH**. Rethinking Pediatric Gliomas as Developmental Brain Abnormalities. *Current Topics in Developmental Biology* 94:283-308, 2011. PMID: 21295690
278. Yu J, Deshmukh H, Payton JE, Dunham C, Scheithauer BW, Tihan T, Prayson RA, Guha A, Bridge JA, Ferner RE, Linberg GM, Gutmann RJ, Emnett RJ, Salavaggione L, **Gutmann DH**, Nagarajan R, Watson MA, Perry A. Array-

- based comparative genomic hybridization identifies CDK4 and FOXM1 alterations as independent predictors of survival in malignant peripheral nerve sheath tumor. *Clin Cancer Res* 17:1924-34, 2011. PMID: 21325289
279. Pong WW, **Gutmann DH**. The Ecology of Brain Tumors – Lessons Learned from Neurofibromatosis-1. *Oncogene* 30:1135-46, 2011. PMID: 21076468
 280. **Gutmann DH**, Listernick R, Ferner RE. Screening for symptomatic optic pathway glioma in children with neurofibromatosis type 1. (letter) *Eye* 25:818, 2011. PMID: 21274014
 281. Kalamarides M, Stemmer-Rachamimov AO, Niwa-Kawakati M, Chareyre F, Clermont E, Han Z-Y, Martinelli C, Lusis EA, Hegedus B, **Gutmann DH**, Giovannini M. Identification of a progenitor cell or origin capable of generating diverse meningioma histologic subtypes. *Oncogene* 30:2333-44, 2011. PMID: 21242963
 282. **Gutmann DH**, Stiles CD, Lowe SW, Bollag GE, Furnari FB, Charest A. Proceedings from the Fifth National Cancer Institute Mouse Models of Human Cancer Consortium Nervous System Tumors Workshop. *Neuro-Oncology* 13:692-9, 2011. PMID: 21727208
 283. Dahiya S, Lee DY, **Gutmann DH**. Comparative characterization of the human and mouse third ventricle germinal zones. *J Neuropathol Exp Neurol* 70:622-33, 2011. PMID: 21666496
 284. Deshmukh H, Yu J, Shaik J, MacDonald TJ, Perry A, Payton JE, **Gutmann DH**, Watson MA, Nagarajan R. Identification of transcriptional regulatory networks specific to pilocytic astrocytoma. *BMC Genomics* 4:57-64, 2011. PMID: 21745356
 285. Stenzel D, Lundkvist A, Sauvaget D, Busse MN, Graupera M, van der Flier A, Wijelath ES, Murray J, Sobel M, Takahashi S, Fassler R, Yamaguchi Y, **Gutmann DH**, Hynes RO, Gerhardt H. Integrin-dependent and independent functions of astrocytic fibronectin in retinal angiogenesis. *Development* 138:4451-63, 2011. PMID: 21880786
 286. Banerjee S, Crouse NR, Emnett RJ, Gianino SM, **Gutmann DH**. Neurofibromatosis-1 regulates mTOR-mediated astrocyte growth and glioma formation in a TSC/Rheb-independent manner. *Proc Natl Acad Sci USA* 108:15996-6001, 2011. PMID: 21896734
 287. Brown JA, Xu J, Diggs-Andrews KA, Wozniak DF, Mach RH, **Gutmann DH**. PET imaging for attention deficit preclinical drug testing in neurofibromatosis-1 mice. *Exp Neurol* 232:333-8, 2011. PMID: 21963652
 288. Brown JA, Diggs-Andrews KA, Gianino SM, **Gutmann DH**. Neurofibromatosis-1 heterozygosity impairs CNS neuronal morphology in a cAMP/PKA/ROCK-dependent manner. *Molecular and Cellular Neuroscience* 49:13-22, 2012. PMID: 21903164
 289. Wei S, Zhan DQ, Xiong M, Liang BY, Wang YY, **Gutmann DH**, Chen XP, Huang ZY. Ku80 functions as a tumor suppressor in hepatocellular carcinoma by inducing S-phase arrest through a p53-dependent pathway. *Carcinogenesis* 33:538-47, 2012. PMID: 22226916
 290. Dahiya S, Yu J, Kaul A, Leonard JR, **Gutmann DH**. Novel BRAF alteration in a sporadic pilocytic astrocytoma. *Case Reports in Medicine* 2012:418672, 2012. PMID: 22548077
 291. Soucy EA, Gao F, **Gutmann DH**, Dunn CM. Developmental delays in children with neurofibromatosis type 1. *J Child Neurology* 27:641-4, 2012. PMID: 22190506
 292. Thangarajh M, **Gutmann DH**. Low-grade gliomas as neurodevelopmental disorders: Insights from mouse models of neurofibromatosis-1. *Neuropathol Appl Neurobiol* 38:241-53, 2012. PMID: 22035280
 293. Tien A-C, Tsai H-H, Molofsky A, McMahon M, Foo L, Kaul A, Dougherty JD, Heintz N, **Gutmann DH**, Barres B, Rowitch DH. Regulated temporal-spatial astrocyte precursor cell proliferation involves BRAF signaling in the mammalian spinal cord. *Development* 139:2477-87, 2012. PMID: 22675209
 294. Fisher MJ, Loguidice M, **Gutmann DH**, Listernick R, Ferner RE, Ullrich NJ, Packer RJ, Tabori U, Hoffman RO, Ardern-Holmes SL, Hummel TR, Hargrave DR, Boufet E, Charrow J, Bilaniuk LT, Balcer LJ, Liu GT. Visual Outcomes in Children with Neurofibromatosis Type 1 Associated Optic Pathway Glioma Following Chemotherapy: A Multi-center Retrospective Analysis. *Neuro-Oncology* 14:790-7, 2012. PMID: 22474213
 295. Camargo N, Brouwers JF, Loos M, **Gutmann DH**, Helms JB, Smit AB, Verheijen MHG. High-fat diet ameliorates neurological deficits caused by defective astrocyte lipid metabolism. *FASEB J* 26:4302-15, 2012. PMID: 22751013
 296. Acosta MT, Bearden CE, Castellanos XF, Cutting L, Elgersma Y, Gioia G, **Gutmann DH**, Lee S-K, Legius E, Muenke M, North K, Parada LF, Ratner N, Hunter-Schaedle K, Silva AJ. The Learning Disabilities Network (LeaDNet): Using neurofibromatosis type 1 as a paradigm for translational research. *Am. J. Med. Genet.* 158A:2225-32, 2012. PMID: 22821737

297. Avery RA, Ferner RE, Listernick R, Fisher MJ, **Gutmann DH**, Liu GT. Visual acuity in children with low grade gliomas of the visual pathway: Implications for patient care and clinical research. *J Neuro-Onc* 110:1-7, 2012. PMID: 22843451
298. **Gutmann DH**, Parada LF, Silva AJ, Ratner N. Neurofibromatosis Type 1: Modeling CNS Dysfunction. *J. Neurosci* 32:14087-93, 2012. PMID: 23055477
299. Johnson KJ, Fisher MJ, Listernick RL, North KN, Schorry EK, Viskochil D, Weinstock M, Rubin JB, **Gutmann DH**. Parent of origin in individuals with familial neurofibromatosis type 1 and optic pathway gliomas. *Fam Cancer* 11:653-6, 2012. PMID: 22829012
300. Lee DY, Gianino SM, **Gutmann DH**. Innate neural stem cell heterogeneity determines the patterning of glioma formation in children. *Cancer Cell* 22:131-8, 2012. PMID: 22789544
301. Kaul A*, Chen Y-H*, Emnett RJ, Dahiya S, **Gutmann DH**. Pediatric glioma-associated KIAA1549: BRAF expression regulates neuroglial cell growth in a cell type-specific and mTOR-dependent manner. *Genes & Development* 26:2561-6, 2012. *co-first authors. PMID: 23152448
302. Isenberg JC, Templer A, Gao F, Titus JB, **Gutmann DH**. Attention skills in children with neurofibromatosis type 1. *J. Child Neurol* 28:45-9, 2012. PMID: 22496119
303. **Gutmann DH**, Avery R, Ferner RE, Listernick R. Visual function and optic glioma: A critical response. *JAMA Ophthalmology* 131:120-4, 2013. PMID: 23307228
304. Ho C-Y, Bar E, Giannini C, Marchionni L, Karajannis MA, Zagzag D, **Gutmann DH**, Eberhart CG, Rodriguez FJ. MicroRNA profiling in pediatric pilocytic astrocytoma reveals biologically relevant targets including PBX3, NFIB, and METAP2. *Neuro-Oncology* 15:68-92, 2013. PMID: 23161775
305. **Gutmann DH**, McLellan MD, Hussain I, Wallis JW, Fulton LL, Fulton RS, Magrini V, Demeter R, Wylie T, Kandoth C, Leonard JR, Guha A, Miller CA, Ding L, Mardis EM. Somatic Neurofibromatosis type 1 (NF1) inactivation characterizes NF1-associated pilocytic astrocytoma. *Genome Res* 23:431-9, 2013. PMID: 23222849
306. Johnson KJ, Hussain I, Williams K, Santens R, Mueller NL, **Gutmann DH**. Development of an international internet-based Neurofibromatosis type 1 patient registry. *Contemp Clin Trials* 34:305-11, 2013. PMID: 23246715
307. Soucy EA, van Oppen D, Nejedly NL, Gao F, **Gutmann DH**, Hollander AS. Height assessments in children with neurofibromatosis type 1. *J. Child Neurol* 28:303-7, 2013. PMID: 22752476
308. **Gutmann DH**, Blakeley JO, Korf BR, Packer RJ. Optimizing biologically targeted clinical trials for neurofibromatosis. *Expert Opinion on Investigational Drugs* 22:443-62, 2013. PMID: 23425047
309. Schulz A, Baader SL, Niwa-Kawakita M, Jung MJ, Bauer R, Garcia C, Zoch A, Schacke S, Schroder JM, Mautner V-F, Hanemann CO, Dun X-P, Parkinson DB, Weis J, Hagel C, **Gutmann DH**, Giovannini M, Morrison H. The role of merlin isoform 2 in neurofibromatosis type 2-associated polyneuropathy. *Nat. Neurosci.*16:426-33, 2013. PMID: 23455610
310. Pong WW, Higer SB, Gianino SM, Emnett RJ, **Gutmann DH**. Reduced microglial CX3CR1 expression delays neurofibromatosis-1 glioma formation. *Ann. Neurol.* 73:303-8, 2013. PMID: 23424002
311. Diggs-Andrews KA, Tokua K, Izumi I, Zorumski CF, Wozniak DF, **Gutmann DH**. Dopamine deficiency underlies learning deficits in neurofibromatosis-1 mice. *Ann Neurol* 73:309-15, 2013. PMID: 23225063
312. Ostendorf AP, McKinstry RC, Shimony JS, **Gutmann DH**. Teaching NeuroImages: T2-hyperintensities in neurofibromatosis type 1. *Neurology* 80:e215-6, 2013. PMID: 23671349
313. Diggs-Andrews KA, **Gutmann DH**. Cognitive dysfunction in neurofibromatosis-1. *Trends in Neurosciences* 36:237-47, 2013. PMID: 23312374
314. Karasinska JM, de Haan W, Franciosi S, Ruddle P, Fan J, Kruit JK, Strukas S, Lutjohann D, **Gutmann DH**, Wellington CL, Hayden MR. ABCA1 influences neuroinflammatory pathways and neuronal death. *Neurobiol. Dis.* 54:445-55, 2013. PMID: 23376685
315. Dahiya S, Haydon DH, Alvarado D, Gurnett CA, **Gutmann DH**, Leonard JR. BRAFV600E Mutation is a Negative Prognosticator in Pediatric Ganglioglioma. *Acta Neuropathol.* 125:901-10, 2013. PMID: 23609006, PMID
316. Wozniak DF, Dearborn JT, Conyers S, Yuede CM, Brown JA, Diggs-Andrews KA, Tokuda K, Izumi Y, Zorumski CF, **Gutmann DH**. Motivational disturbances and effects of L-dopa administration in neurofibromatosis-1 model mice. *PLoS One* 8:e66024, 2013. PMID: 23762458
317. O'Brien DE, Brenner DS, **Gutmann DH**, Gereau RW. Assessment of pain and itch behavior in a mouse model of Neurofibromatosis type 1. *J. Pain* 14:628-37, 2013. PMID: 23578956

318. Brennan C, Verhaak RGW, McKenna A, Campos B, Noushmehr H, Salama S, Zheng S, Chakravarti D, Sanborn JZ, Berman S, Beroukhi R, Bernard B, Wu C-J, Genovese G, Shmulevich I, Barnholtz-Sloan J, Zou L, Vegesna R, Shukla S, Ciriello G, Lu Y, Yung WK, Zhang W, Kucherlapati R, Perou CM, Gibbs R, Marra M, Gastier-Foster JM, Mills GB, Lander E, Spellman P, Wilson R, Sander C, Weinstein J, Meyerson M, Laird PW, Haussler D, Gabriel S, Getz G, Chin L, **TCGA Research Network**. The Somatic Genomic Landscape of Glioblastoma. *Cell* 155:462-77, 2013. PMID: 24120142
319. Ostendorf AP, **Gutmann DH**, Weisenberg JLZ. Epilepsy in individuals with neurofibromatosis type 1. *Epilepsia* 54:1810-4, 2013. PMID: 24032542
320. Kaul A, Chen Y-H, Emnett RJ, Gianino SM, **Gutmann DH**. Conditional *KIAA1549:BRAF* mice reveal brain region- and cell type-specific effects. *Genesis* 8:e66024, 2013. PMID: 23893969
321. Ji J, Shimony J, Gao F, McKinstry RC, **Gutmann DH**. Optic nerve tortuosity in individuals with neurofibromatosis type 1. *Pediatr Radiol* 43:1336-43, 2013. PMID: 23636538
322. Kliese N, Gobrecht P, Pachow D, Andrae N, Wilisch-Neumann A, Kirches E, Riek-Burchardt M, Angenstein F, Reifenberger G, Riemenschneider M, Meese E, **Gutmann DH**, Mawrin C. miRNA-145 negatively regulates motility and proliferation of meningioma cells. *Oncogene* 32:4712-20, 2013. PMID: 23108408
323. Templer AK, Titus JB, **Gutmann DH**. A neuropsychological perspective on attention problems in neurofibromatosis type 1. *J Attention Disorders* 17:489-96, 2013. PMID: 22354384
324. Pong WW, Walker J, Wylie T, Magrini V, Luo J, Emnett RJ, Choi J, Cooper ML, Griffith M, Griffith OL, Rubin JB, Fuller GN, Piwnica-Worms D, Feng X, Hambardzumyan D, DiPersio JF, Mardis ER, **Gutmann DH**. F11R is a novel monocyte prognostic biomarker for malignant glioma. *PLOS ONE* 8:e77571, 2013. PMID: 24147027
325. Licis AK, Vallorani A, Gao F, Chen C, Lenox J, Yamada KA, Duntley SP, **Gutmann DH**. Prevalence of sleep disturbances in children with Neurofibromatosis type 1. *J Child Neurol* 28:1400-1405, 2013. PMID: 24065580
326. Fisher MJ, Avery R, Allen J, Arden-Holmes S, Bilaniuk L, Ferner R, **Gutmann DH**, Listerick R, Martin S, Ullrich N, Liu GT. Functional outcomes for neurofibromatosis type 1-associated optic pathway glioma clinical trials. *Neurology* 81:S15-24, 2013. PMID: 24249802
327. Wessel LE, Albers AC, **Gutmann DH**, Dunn CM. The association between hypotonia and brain tumors in children with Neurofibromatosis type 1. *J Child Neurol* 28:1664-7, 2013. PMID: 23071069
328. Wessel LE, Gao F, **Gutmann DH**, Dunn CM. Longitudinal analysis of developmental delays in children with neurofibromatosis type 1. *J Child Neurol* 28:1689-93, 2013. PMID: 23112244
329. Lin A, **Gutmann DH**. Advances in the treatment of neurofibromatosis-associated tumors. *Nat Rev Clin Oncol* 10:616-24, 2013. PMID: 23939548
330. Hawasli AH, Rubin JB, Tran DD, Adkins DR, Waheed S, Hullar TE, **Gutmann DH**, Evans J, Chicoine MR. Anti-angiogenic therapy for non-malignant brain tumors. *Journal of Neurological Surgery: Skull Base* 74:136-41, 2013. PMID: 24436903
331. Solga AC, Gianino SM, **Gutmann DH**. NG2 cells are not the cell of origin for murine neurofibromatosis-1 (Nf1) optic glioma. *Oncogene* 33:289-99, 2014. PMID: 23318450
332. Dahiya S, Emnett RJ, Haydon DH, Leonard JR, Phillips JJ, Perry A, **Gutmann DH**. *BRAF-V600E* mutation in pediatric and adult glioblastoma. *Neuro-Oncology* 16:318-9, 2014. PMID: 24311634
333. Hirbe AC, Pekmezci M, Dahiya S, Apicelli AJ, Van Tine BA, Perry A, **Gutmann DH**. *BRAFV600E* mutation in sporadic and NF1-related malignant peripheral nerve sheath tumors. *Neuro-Oncology* 16:466-7, 2013. PMID: 24366910
334. Chen Y-H, **Gutmann DH**. The molecular and cell biology of pediatric low-grade gliomas. *Oncogene* 33:2019-2026, 2014. PMID: 23624918
335. Diggs-Andrews KA, Brown JA, Gianino SM, Rubin JB, Wozniak DF, **Gutmann DH**. Sex is a major determinant of neuronal dysfunction in neurofibromatosis type 1. *Ann Neurol* 75:309-16, 2014. PMID: 24375753
336. German GG, Volinia S, Croce CM, Zanca C, Li M, Emnett R, **Gutmann DH**, Brannan CW, Furnari FB, Cavenee WK. Suppression of microRNA-9 by mutant EGFR signaling upregulates FOXP1 to enhance glioblastoma tumorigenicity. *Cancer Res* 74:1429-39, 2014. PMID: 24436148
337. Widemann B, Acosta M, Ammoun S, Belzberg A, Bernards A, Blakeley J, Bretscher A, Cichowski K, Clapp W, Dombi E, Evans GD, Ferner R, Fernandez-Valle C, Fisher M, Giovanini M, **Gutmann DH**, Hanenmann O, Hennigan R, Huson S, Ingram D, Kissil J, Korf B, Legius E, Packer RJ, McClatchey A, McCormick F, North K,

- Pehrsson M, Plotkin S, Ramesh V, Ratner N, Schirmer S, Sherman L, Schorry E, Stevenson D, Stewart D, Ullrich N, Bakker AC, Morrison H. CTF meeting 2012 – Translation of the basic understanding of the biology and genetics of NF1, NF2, and schwannomatosis towards the development of effective therapies. *Am J Med Genet A* 164:563-78, 2014. PMID: 24443315
338. Gavilan HS, Kulikaukas RM, **Gutmann DH**, Fehon RG. In vivo functional analysis of the human NF2 tumor suppressor gene in *Drosophila*. *PLoS One* 9:e90853, 2014. PMID: 24595234
339. Garcia C, **Gutmann DH**. *Nf2*/merlin controls spinal cord neural progenitor function in a Rac1/ErbB2-dependent manner. *PLoS One* 9:e97320, 2014. PMID: 24817309
340. Kumar MG, Emnett RJ, Bayliss SJ, **Gutmann DH**. Glomus tumors in individuals with neurofibromatosis type 1. *J Am Acad Dermatol* 71:44-8, 2014. PMID: 24685357
341. Weiss B, Widemann BC, Wolters P, Dombi E, Vinks AA, Canter C, Korf BR, Parentesis J, **Gutmann DH**, Schorry E, Packer R, Fisher MJ. Sirolimus for non-Progressive NF1-Associated Plexiform Neurofibromas: An NF Clinical Trials Consortium Phase II Study. *Ped Blood Cancer* 61:982-6, 2014. PMID: 24851266
342. Hirbe AC, **Gutmann DH**. Neurofibromatosis 1: A cancer predisposition syndrome. *Lancet Oncology Reviews* 13:834-843, 2014. PMID: 25030515
343. **Gutmann DH**. Eliminating Barriers to Precision Medicine: Learning from Neurofibromatosis Type 1. *Neurology* 83:463-471, 2014. PMID: 24975854
344. Cabanski CR, Magrini V, Griffith M, Griffith OL, McGrath S, Walker J, Ly A, Demter R, Pong WW, **Gutmann DH**, Govindan R, Mardis ER, Maher CA. cDNA hybrid capture improves transcriptome analysis on low-input and archived samples. *J Mol Diagn* 16:440-51, 2014. PMID: 24814956
345. Johnson KJ, Mueller NL, Williams K, **Gutmann DH**. Evaluation of participant recruitment methods to a rare disease registry. *Am J Med Genet A* 164:1686-94, 2014. PMID: 24700441
346. Garcia C, **Gutmann DH**. Using the neurofibromatosis tumor predisposition syndromes to understand normal nervous system development. *Scientifica* 2014:915725, 2014. PMID: 25243094
347. Schwetye K, **Gutmann DH**. Cognitive and behavioral problems in children with Neurofibromatosis type 1: Challenges and future directions. *Expert Review Neurotherapeutics* 27:1-14, 2014. PMID: 25161109
348. Anastasaki C, **Gutmann DH**. Neuronal NF1/RAS regulation of cyclic AMP requires atypical PKC activation. *Hum Mol Genet* 23:6712-21, 2014. PMID: 25070947
349. Plotkin SR, Albers AC, Babovic-Vuksanovic D, Blakeley JO, Breakefield XO, Dunn CM, Evans DG, Fisher MJ, Friedman JM, Giovannini M, **Gutmann DH**, Kalamarides M, McClatchey AI, Messiaen L, Morrison H, Parkinson DB, Stemmer-Rachamimov AO, Van Raamsdonk CD, Riccardi VM, Rosser T, Schindeler A, Smith MJ, Stevenson DA, Ullrich NJ, van der Vaart T, Weiss B, Widemann BC, Zhu Y, Bakker AC, Lloyd AC. Update from the 2013 International Neurofibromatosis Conference. *Am J Med Genet A* 164:2969-78, 2014. PMID: 252555738
350. Huang Y-C, Wei K-C, Chang C-N, Chen P-Y, Hsu P-W, Chen CP, Lu C-S, Wang H-L, **Gutmann DH**, Yeh T-H. Transglutaminase 2 expression is increased as a function of malignancy grade and negatively regulates cell growth in meningioma. *PLoS One* 9:e108228, 2014. PMID: 25247996
351. Sharkey EK, Zoellner NL, Abadin S, **Gutmann DH**, Johnson KJ. Validity of participant-reported diagnoses in an online patient registry: A report from the NF1 Patient Registry Initiative. *Contemporary Clinical Trials* 40C:212-7, 2014. PMID: 25533730
352. Madubata CC, Olsen MA, Stwalley DL, **Gutmann DH**, Johnson KJ. Neurofibromatosis type 1 and chronic neurological conditions in the United States: An administrative claims analysis. *Genet Med* 17:26-42, 2015. PMID: 24901347
353. Pachow D, Wick W, **Gutmann DH**, Mawrin C. The mTOR-signaling pathway a a treatment target for intracranial neoplasms. *Neuro-Oncol* 17:189-99, 2015. PMID: 25165193
354. Rauen KA, Huson SM, Burkitt-Wright E, Evans GD, Farschtschi S, Ferner R, **Gutmann DH**, Hanemann O, Kerr B, Legius E, Parada L, Patton M, Peltonen J, Ratner N, Riccardi VM, Van der Vaart T, Vikula M, Viskochil DH, Zenker M, Upadhyaya M. Recent developments in neurofibromatoses and RASopathies: management, diagnosis and current and future therapeutic avenues. *Am J Med Genet A* 167:1-10, 2015. PMID: 25393061
355. Warrington NM, Sun T, Luo J, McKinstry RC, Parkin PC, Ganzhorn S, Spoljaric D, Albers AC, Merkelson A, Stewart DR, Stevenson DA, Viskochil D, Druley TE, Forsys JT, Reilly KM, Fisher MJ, Tabori U, Allen JC, Shiffman

- JD, **Gutmann DH**, Rubin JB. The cyclic AMP pathway is a sex-specific modifier of glioma risk in type 1 neurofibromatosis patients. *Cancer Res* 75:16-21, 2015. PMID:25381154
356. Weiss BD, Widemann B, Wolters P, Dombi E, Vinks A, Cantor A, Perentesis J, Schorry E, Ullrich N, **Gutmann DH**, Tonsgard J, Viskochil D, Korf B, Packer RJ, Fisher MJ. Sirolimus for progressive NF1-associated plexiform neurofibromas: A neurofibromatosis clinical trials consortium (NFCTC) Phase II Study. *Neuro-Oncol* 17:596-603, 2015. PMID: 25314964
357. Pekmezci M, Reuss DE, Hirbe AC, Dahiya S, **Gutmann DH**, von Deimling A, Horvai AE, Perry A. Morphologic and immunohistochemical features of malignant peripheral nerve sheath tumors and cellular schwannomas. *Mod Pathol* 28:187-200, 2015. PMID: 25189642
358. Soucy EA, Wessel LE, Gao F, Albers AC, **Gutmann DH**, Dunn CM. A pilot study for evaluation of hypotonia in children with neurofibromatosis type 1. *J Child Neurol* 30:382-385, 2015. PMID: 24789516
359. Solga AC, Pong WW, Walker J, Wylie T, Magrini V, Apicelli AJ, Griffith M, Griffith OL, Kohsaka S, Wu GF, Brody DL, Mardis ER, **Gutmann DH**. RNA-sequencing reveals oligodendrocyte and neuronal transcripts in microglia relevant to central nervous system disease. *GLIA* 63:531-548, 2015. PMID: 25258010
360. Ackerman SD, Garcia C, Piao X, **Gutmann DH**, Monk KR. The adhesion-GPCR Gpr56 regulates oligodendrocyte development via interactions with G212/13 and Rho A. *Nature Commun* 6:6122, 2015. PMID:25607772
361. Brossier NM, **Gutmann DH**. Improving outcomes for Neurofibromatosis 1-associated brain tumors. *Exp Rev Anticancer Ther* 5:1-9, 2015. PMID:25652347
362. Kaul A, Toonen JA, Gianino SM, **Gutmann DH**. The impact of co-existing genetic mutations on murine optic glioma biology. *Neuro-Oncol* 17:670-7, 2015. PMID: 25246427
363. Liu Q, Zoellner N, **Gutmann DH**, Johnson KJ. Parental age and neurofibromatosis type 1: a report from the NF1 Patient Registry Initiative. *Fam Cancer* 14:317-24, 2015. PMID: 25523354
364. Kaul A, Toonen JA, Cimino PJ, Gianino SM, **Gutmann DH**. AKT- or MEK-mediated mTOR inhibition suppresses *Nf1* optic glioma growth. *Neuro-Oncol* 17:843-53, 2015. PMID: 25534823
365. Chen Y-H, D'Agostino McGowan L, Cimino PJ, Dahiya S, Leonard JR, Lee DY, **Gutmann DH**. Mouse low-grade gliomas contain cancer stem cells with unique molecular and functional properties. *Cell Reports* 10:1899-1912, 2015. PMID: 25772366
366. Bender RHF, Haigis KM, **Gutmann DH**. Activated K-Ras, but not H-Ras or N-Ras, regulates brain neural stem cell proliferation in a Raf/Rb-dependent manner. *Stem Cells* 33:1998-2010, 2015. PMID: 25788415
367. Anastasaki C, Woo AS, Messiaen LM, **Gutmann DH**. Elucidating the impact of neurofibromatosis-1 germline mutations on neurofibromin function and dopamine-based learning. *Hum Mol Genet* 24:3518-28, 2015. PMID: 25772366
368. Constantino JN, Zhang Y, Holzhauer K, Sant S, Long K, Vallorani A, **Gutmann DH**. Distribution and within-family specificity of quantitative autistic traits in NF1. *J Pediatr* 167:621-626, 2015. PMID:26051969
369. Abadin AS, Zoellner NL, Schaeffer M, Porcelli B, **Gutmann DH**, Johnson KJ. Racial/ethnic differences in pediatric brain tumor diagnoses in individuals with neurofibromatosis type 1. *J Pediatr* 167:613-620, 2015. PMID:26028287
370. Chen YH, Gianino SM, **Gutmann DH**. Neurofibromatosis-1 regulation of neural stem cell proliferation and multi-lineage differentiation operates through distinct RAS effector pathways. *Genes & Development* 29:1677-82, 2015. PMID:26272820
371. Omrani A, van der Vaart T, van Woerden GM, Hojjati MR, Li KW, **Gutmann DH**, Smit AB, Mientjes E, Silva AJ, Kushner SA, Elgersma Y. HCN channels are a novel therapeutic target for cognitive dysfunction in neurofibromatosis type 1. *Mol Psychiatr* 20:1311-21, 2015. PMID: 25917366
372. Hirbe AC, Dahiya S, Miller CA, Li T, Fulton RS, Zhang X, McDonald S, DeSchryver K, Duncavage EJ, Walrath J, Reilly KM, Abel HJ, Pekmezci M, Perry A, Ley TJ, **Gutmann DH**. Whole exome sequencing reveals the order of genetic changes during malignant transformation and metastasis in a single patient with NF1-plexiform neurofibroma. *Clin Cancer Res* 21:4201-11, 2015. PMID: 25925892
373. Solga AC, Pong WW, Kim K-Y, Cimino PJ, Toonen JA, Walker J, Wylie T, Magrini V, Griffith M, Griffith OL, Ly A, Ellisman MH, Mardis ER, **Gutmann DH**. RNA-sequencing of tumor-associated microglia reveals Ccl5 as a stromal chemokine critical for neurofibromatosis-1 glioma growth. *Neoplasia* 17:776-88, 2015. PMID: 26585233
374. Hambardzumyan D, **Gutmann DH**, Kettenmann H. The role of microglia/macrophages in glioma maintenance and progression. *Nat Neurosci* 19:20-27, 2016. PMID: 26713745

375. Ceccarelli M, Barthel FP, Malta TM, Sabedot TS, Salma SR, Murray BA, Loroza O, Newton Y, Radenbaugh A, Pagnotta SM, Anjum S, Wang J, Manyam G, Zoppoli P, Ling S, Rao A, Grifford M, Cherniak AD, Zhang H, Poisson L, Rao A, Mikkelsen T, Lau CC, Yung WKA, Rabadan R, Huse J, Brat DJ, Lehman N, Rao G, Meyerson M, Beroukhi R, Cooper L, Akbani R, Wrensch M, Haussler D, Aldape KD, Laird PW, **Gutmann DH**, TCGA Research Network, Nounshmehr H, Iavarone A, Verhaak RGW. Molecular profiling reveals biologically discrete subsets and pathways of progression in diffuse glioma. *Cell* 164:550-563, 2016. PMID: 26824661
376. Zafar R, Hsiao EY, Botteron KN, McKinstry RC, **Gutmann DH**. *De novo* development of gliomas in a child with Neurofibromatosis Type 1, Fragile X, and a previously normal brain MRI. *Radiology Case Reports* 11:33-35, 2016. PMID: 26973730
377. Baker SJ, Ellison DW, **Gutmann DH**. Pediatric gliomas as neurodevelopmental disorders. *GLIA* 64:879-895, 2016. PMID: 26638183
378. Porcelli B, Zoellner NL, Abadin SS, **Gutmann DH**, Johnson KJ. Associations between allergic conditions and pediatric brain tumors in Neurofibromatosis type 1. *Fam Cancer* 15:301-308, 2016. PMID: 26666764
379. Johnson KJ, Zoellner N, **Gutmann DH**. Peri-gestational risk factors for pediatric brain tumors in neurofibromatosis type 1. *Cancer Epidemiology* 42:53-59, 2016. PMID: 27018750
380. Hirbe AC, Dahiya S, Friedmann-Morvinski D, Verma IM, Clapp DW, **Gutmann DH**. Spatially- and temporally controlled postnatal p53 knockdown cooperates with embryonic Schwann cell precursor *Nf1* gene loss to promote malignant peripheral nerve sheath tumor formation. *Oncotarget* 7:7403-7414, 2016. PMID: 26859681
381. Anderson DMG, Van de Plas R, Rose KL, Hill S, Schey KL, Solga AC, **Gutmann DH**, Caprioli RM. 3-D imaging mass spectrometry of protein distributions in mouse Neurofibromatosis 1 (NF1)-associated optic glioma. *J. Proteomics* 149:77-84, 2016. PMID: 26883872
382. Toonen JA, Anastasaki C, Smithson LJ, Gianino SM, Li K, Kesterson RA, **Gutmann DH**. *NF1* germline mutation differentially dictates optic glioma formation and growth in neurofibromatosis-1. *Human Mol Genet.* 25:1703-1713, 2016. PMID: 26908603
383. **Gutmann DH**. Exploring the genetic basis for clinical variation in neurofibromatosis type 1 (NF1). *Expert Review of Neurotherapeutics* 30:1-3, 2016. PMID: 27171602
384. Smithson LJ, **Gutmann DH**. Proteomic analysis reveals GIT1 as a novel mTOR complex component critical for mediating astrocyte survival. *Genes Dev* 30:1383-1388, 2016. PMID: 27340174
385. Li K, Turner AN, Chen M, Brosius SN, Schoeb TR, Messiaen LM, Bedwell DM, Zinn KR, Anastasaki C, **Gutmann DH**, Korf BR, Kesterson RA. Mice with missense and nonsense *NF1* mutations display divergent phenotypes compared to NF1 patients. *Dis Models Mech* 9:759-767, 2016. PMID: 27482814
386. Chen Y-H, Cimino PJ, Luo J, Dahiya S, **Gutmann DH**. ABCG1 maintains high-grade glioma survival *in vitro* and *in vivo*. *Oncotarget* 7:23416-23424, 2016. PMID: 26981778
387. Schwetye KE, Joseph NM, Al-Kateb H, Rich K, Schmidt RE, Perry A, **Gutmann DH**, Dahiya S. Gliosarcomas lack *BRAF*^{V600} mutations, but some exhibit β -catenin nuclear localization. *Neuropathology* 36:448-455, 2016. PMID: 26932501
388. Smithson LJ, Anastasaki C, Chen R, Toonen JA, Williams SB, **Gutmann DH**. Contextual signaling in cancer. *Sem Cell Dev Biol* 58:118-126, 2016. PMID: 27269372
389. Wolters PL, Martin S, Merker VL, Tonsgard JH, Solomon SE, Baldwin A, Bergner AL, Walsh K, Thompson HL, Gardner KL, Hingtgen CM, Schorry E, Dudley WN, Franklin B; **REiNS International Collaboration**. Patient-reported outcomes of pain and physical functioning in neurofibromatosis clinical trials. *Neurology* 87:S4-S12, 2016. PMID: 27527648
390. Plotkin SR, Davis SD, Robertson KA, Akshintala S, Allen J, Fisher MJ, Blakeley JO, Widemann BC, Ferner RE, Marcus CL; **REiNS International Collaboration**. Sleep and pulmonary outcomes for clinical trials of airway plexiform neurofibromas in NF1. *Neurology* 87:S13-20, 2016. PMID: 27527645
391. Ahlawat S, Fayad LM, Khan MS, Bredella MA, Harris GJ, Evans DG, Farschtschi S, Jacobs MA, Walsh KS, Janusz J, Wolters PL, Martin S, Klein-Tasman BP, Toledo-Tamula MA, Thompson HL, Payne JM, Hardy KK, de Blank P, Semerjian C, Gray LS, Solomon SE, Ullrich N; **REiNS International Collaboration**. Neurocognitive outcomes in neurofibromatosis clinical trials: Recommendations for the domain of attention. *Neurology* 87:S21-30, 2016. PMID: 27527646

392. Chhabra A, Salamon JM, Wenzel R, Mautner VF, Dombi E, Cai W, Plotkin SR, Blakeley JO; **REiNS International Collaboration**. Current whole-body MRI applications in the neurofibromatoses: NF1, NF2, and schwannomatosis. *Neurology*. 87:S31-9, 2016. PMID: 27527647
393. Hanemann CO, Blakeley JO, Nunes FP, Robertson K, Stemmer-Rachamimov A, Mautner V, Kurtz A, Ferguson M, Widemann BC, Evans DG, Ferner R, Carroll SL, Korf B, Wolkenstein P, Knight P, Plotkin SR; **REiNS International Collaboration**. Current status and recommendations for biomarkers and biobanking in neurofibromatosis. 87:S40-8, 2016. PMID: 27527649
394. Morris SM, Monroe CL, **Gutmann DH**. Macrocephaly is not a predictor of optic glioma development or treatment in Neurofibromatosis type 1. *J Child Neurol* 31:1450-1545, 2016. PMID: 27581847
395. Morris SM, Acosta MT, Garg S, Green J, Huson S, Legius E, North KN, Payne JM, Plasschaert E, Frazier TW, Weiss LA, Zhang Y, **Gutmann DH***, Constantino JN*. Disease Burden and Symptom Structure of Autism in Neurofibromatosis Type 1: A Study of the International NF1-Autism Consortium Team (INFACT). *JAMA Psychiatry* 73:1276-1284, 2016. PMID: 27760236. *co-corresponding authors
396. Payne JM, Barton B, Ullrich NJ, Cantor A, Hearps SJC, Cutter G, Rosser T, Walsh KS, Gioia GA, Wolters PL, Tongsgard J, Schorry E, Viskochil D, Klesse L, Fisher M, **Gutmann DH**, Silva AJ, Hunter SJ, Rey-Casserly C, Cantor NL, Byars AW, Stavinoha PL, Ackerson JD, Armstrong CL, Isenberg J, O'Neil SH, Packer RJ, Korf B, Acosta MT, North KN. A double-blind placebo-controlled study of lovastatin for cognitive deficits in children with neurofibromatosis type 1. *Neurology* 87:2575-2584, 2016. PMID: 27956565
397. Ricker CA, Pan Y, **Gutmann DH**, Keller C. Challenges in Drug Discovery for Neurofibromatosis Type-1 Associated Low-Grade Gliomas. *Frontiers in Oncology* 6:259, 2016. PMID: 28066715
398. Ishii T, Ueyama T, Shigyo M, Kohta M, Kondoh T, Kuboyama T, Uebi T, Hamada T, **Gutmann DH**, Aiba A, Kohmura E, Tohda C, Saito N. A novel Rac1-GSPT1 signaling pathway controls astrogliosis following central nervous system injury. *J Biol Chem* 292:1240-1250, 2017. PMID: 27941025
399. Toonen JA, Solga AC, Ma Y, **Gutmann DH**. Estrogen activation of microglia underlies the sexually dimorphic differences in *Nf1* optic glioma-induced retinal pathology. *J Exp Med* 214:17-25, 2017. [chosen by JEM editors as one of the top ten neuroscience articles published in 2017; featured in 2017 Society for Neuroscience meeting special issue] PMID: 27923908
400. Hirbe AC, Kaushal M, Sharma MK, Dahiya S, Pekmezci M, Perry A, **Gutmann DH**. Clinical genomic profiling identifies *TYK2* mutation and overexpression in neurofibromatosis type 1 (NF1) malignant peripheral nerve sheath tumors (MPNSTs). *Cancer* 123:1194-1201, 2017. PMID: 27875628
401. **Gutmann DH**, Ferner RE, Listernick RH, Korf BR, Wolters PL, Johnson KJ. Neurofibromatosis type 1. *Nature Reviews Disease Primers* 3:17004, 2017. PMID: 28230061
402. Camargo N, Goudriaan A, van Deijk A-LF, Otte WM, Brouwers JF, Lodder H, **Gutmann DH**, Nave K-A, Dijkhuizen RM, Mansvelder HD, Chrast R, Smit AB, Verheijen MHG. Oligodendroglial myelination requires astrocyte-derived lipids. *PLoS Biology* 15:e1002605, 2017. PMID: 28549068
403. Walter C, Crawford L, Lai M, Toonen JA, Pan Y, Sakiyama-Elbert S, **Gutmann DH**, Pathak A. Increased tissue stiffness in tumors from mice with neurofibromatosis-1 optic glioma. *Biophys Journal* 112:1535-1538, 2017. PMID: 28445745
404. Pan Y, Smithson LJ, Ma Y, Hambardzumyan D, **Gutmann DH**. Ccl5 establishes an autocrine high-grade glioma growth regulatory circuit critical for mesenchymal glioblastoma survival. *Oncotarget* 8:32977-32989, 2017. PMID: 28380429
405. Chen Z, Feng X, Herting CJ, Alvarez-Garcia V, Nie K, Pong WW, Rasmussen R, Dwivedi B, Seby S, Wolf SA, **Gutmann DH**, Hambardzumyan D. The cellular and molecular identity of tumor-associated macrophages in glioblastoma. *Cancer Res* 77: 2266-2278, 2017. PMID: 28235764
406. Toonen JA, Ma Y, **Gutmann DH**. Defining the temporal course of murine Neurofibromatosis-1 optic gliomagenesis reveals a therapeutic window to attenuate retinal dysfunction. *Neuro-Oncology* 19:808-819, 2017. PMID: 28039362
407. Mahdi J, Shah AC, Sato A, Morris SM, McKinstry RC, Listernick R, Packer RJ, Fisher MJ, **Gutmann DH**. A multi-institutional study of brainstem gliomas in children with neurofibromatosis type 1. *Neurology* 88:1584-1589, 2017. PMID: 28330960

408. Blakeley J, Bakker A, Barker A, Clapp W, Ferner R, Fisher M, Giovannini M, **Gutmann DH**, Karajannis M, Kissel J, Legius E, Lloyd A, Packer R, Ramesh V, Riccardi V, Stevenson D, Ullrich N, Upadhyaya M, Stemmer-Rachamimov A. The Path Forward: 2015 International Children's Tumor Foundation Conference on Neurofibromatosis Type 1, Type 2, and Schwannomatosis. *Am J Med Genet A* 173:1714-1721, 2017. PMID: 28436162
409. Hoye M, Koval E, Wegener A, Hyman T, Yang C, O'Brien D, Miller R, Cole T, Schoch K, Shen T, Kunikata T, Richard JP, **Gutmann DH**, Maragakis NJ, Kordasiewicz H, Dougherty J, Miller T. microRNA profiling reveals marker of motor neuron disease in ALS models. *J. Neurosci* 37:5574-5586, 2017. PMID: 28416596
410. Solga AC, Toonen JA, Pan Y, Cimino PJ, Ma Y, Castillon GA, Gianino SM, Ellisman MH, Lee DY, **Gutmann DH**. The cell of origin dictates the temporal course of neurofibromatosis -1 (*Nf1*) low-grade glioma formation. *Oncotarget* 8:47206-47215, 2017. PMID: 28525381
411. Anastasaki C, Dahiya S, **Gutmann DH**. KIR2DL5 mutation and loss underlies sporadic dermal neurofibroma pathogenesis and growth. *Oncotarget* 8:47574-47585, 2017. PMID: 28548933
412. DeBlank PMK, Fisher MJ, Liu GT, **Gutmann DH**, Listernick R, Ferner RE, Avery RA. Optic pathway gliomas in Neurofibromatosis type 1 – An Update: Surveillance, treatment indication and biomarkers of vision. *J Neuro-Ophthalmol* 37:S23-32, 2017. PMID: 28806346
413. Campian J, **Gutmann DH**. CNS Tumors in Neurofibromatosis. *J Clin Oncol* 35:2378-2385, 2017. PMID: 28640700
414. Anastasaki C, Le LQ, Kesterson RA, **Gutmann DH**. Updated nomenclature for human and mouse neurofibromatosis type 1 genes. *Neurology: Genetics* 3:e169, 2017. PMID: 28804759
415. Hirbe AC, **Gutmann DH**. The management of neurofibromatosis type 1-associated malignant peripheral nerve sheath tumors: Challenges, progress, and future prospects. *Expert Opinion on Orphan Drugs* 5:623-631, 2017.
416. Pan Y, Bush EC, Toonen JA, Ma Y, Solga AC, Sims PA, **Gutmann DH**. Whole tumor RNA-sequencing and deconvolution reveal a clinically prognostic PTEN/PI3K-regulated glioma transcriptional signature. *Oncotarget* 8:52474-52487, 2017. PMID: 28881745
417. Vogel A, **Gutmann DH**, Morris SM. Neurodevelopmental disorders in children with neurofibromatosis type 1. *Developmental Medicine and Child Neurology* 59:1112-1116, 2017. PMID: 28845518
418. The Cancer Genome Atlas Research Network. Comprehensive and integrated genomic characterization of adult soft tissue sarcomas. *Cell* 171:950-965, 2017. PMID: 29100075
419. Anastasaki C, Morris SM, Gao F, **Gutmann DH**. Children with 5-end *NF1* gene mutations are more likely to harbor gliomas. *Neurology: Genetics* 3:e192, 2017. PMID: 28955729
420. Zou J, Zhang B, **Gutmann DH**, Wong MJ. Postnatal Reduction of Tuberous Sclerosis Complex-1 Expression in Astrocytes and Neurons Causes Seizures in an Age-Dependent Manner. *Epilepsia* 58:2053-2963, 2017. PMID: 29023667
421. Reilly KM, Kim AR, Blakeley J, Ferner RE, **Gutmann DH**, Legius E, Miettinen MM, Randall RL, Ratner N, Jumbe NLS, Bakker A, Viskochil D, Widemann BC, Stewart DR. Neurofibromatosis Type 1-Associated MPNST State of the Science: Outlining a Research Agenda for the Future. *J Natl Cancer Inst* 109: ePub 2017. PMID: 29117388
422. Wegscheid ML, Anastasaki C, **Gutmann DH**. Human stem cell modeling in neurofibromatosis type 1 (NF1). *Exp Neurol* 299:270-280, 2018. PMID: 28392281
423. Woodford MR, Sager RA, Dunn DM, Marris E, Blanden AR, Rensing N, Shapiro O, Panaretou B, Prodromou C, Loh SN, **Gutmann DH**, Bourboulia D, Bratslavsky G, Wong M, Mollapour M. The Tsc1 Co-chaperone Breaks the Asymmetric Interaction of Aha1 with Hsp90 and Inhibits the ATPase Activity. *EMBO J* 36:3650-3665, 2017. PMID: 29127155
424. Maloney SE, Chandler KC, Anastasaki C, Rieger MA, **Gutmann DH**, Dougherty JD. Characterization of early communicative behavior in mouse models of Neurofibromatosis type 1. *Autism Res* 11:44-58, 2018. PMID: 28842941
425. Morris SM, **Gutmann DH**. A Genotype-Phenotype Correlation for Quantitative Autistic Trait Burden in Neurofibromatosis-1. *Neurology* 90:377-379, 2018. PMID: 29367450
426. Bai L, Lee Y, Hsu CT, Williams JA, Haynes P, Stein C, Cavanaugh D, Wang H, **Gutmann DH**, Sehgal A. A conserved circadian function for the *Neurofibromatosis 1* gene. *Cell Reports* 22:3416-3426, 2018. PMID: 29590612
427. Pan Y, Xiong M, Chen R, Ma Y, Corman C, Maricos M, Kindler U, Semtner M, Chen Y-H, Dahiya S, **Gutmann DH**. Athymic mice reveal a requirement for T cell-microglia interactions in establishing a microenvironment supportive for *Nf1* low grade glioma growth. *Genes Dev* 32: 491-496, 2018. PMID: 29632086

428. Pan Y, Duron C, Bush EC, Ma Y, Sims PA, **Gutmann DH***, Raduns kaya A*, Hardin J*. Graph complexity analysis identifies an ETV5 tumor-specific network in human and murine low-grade glioma. PLoS One 13:e0190001, 2018. *co-senior authors PMID: 29787563
429. Hirbe AC, Zhang X, Dahiya S, Godec A, Chrisinger J, Tao Y, Luo J, **Gutmann DH**. β -III-spectrin immunohistochemistry as a potential diagnostic tool with high sensitivity for malignant peripheral nerve sheath tumors. Neuro-Oncol 20:858-860, 2018. PMID: 29596596
430. Freret ME, Anastasaki C, **Gutmann DH**. Independent *NF1* mutations underlie café-au-lait macule development in a woman with segmental *NF1*. Neurology: Genetics 4:e261, 2018. PMID: 300665955
431. Griffith JL, Morris SM, Mahdi J, Goyal MS, Hershey T, **Gutmann DH**. Increased prevalence of brain tumors classified as T2 hyperintensities in Neurofibromatosis 1. Neurology: Clinical Practice 8:283-291, 2018. PMID: 30140579
432. Freret ME, **Gutmann DH**. Insights into optic pathway glioma vision loss from mouse models of neurofibromatosis type 1. J Neurosci Res 97:45-56, 2019. PMID: 29704429
433. Zessis N, Gao F, **Gutmann DH**, Hollander A. Height growth impairment in children with neurofibromatosis type 1 is characterized by decreased pubertal growth velocity in both sexes. J Child Neurol 33:762-766, 2018. PMID: 30009646
434. Isakson SH, Rizzardi AE, Coutts AW, Carlson DF, Kirstein MN, Fisher J, Vitte J, Williams KB, Pluhar GE, Dahiya S, Widemann BC, Dombi E, Rizvi T, Ratner N, Messiaen L, Stemmer-Rachamimov AO, Fahrenkrug SC, **Gutmann DH**, Giovannini M, Moertel CL, Largaespada DA, Watson AL. Genetically engineered minipigs model the major clinical features of human neurofibromatosis type 1. Communications Biology 1:158, 2018. PMID:30302402
435. Chen R, Keoni C, Waker CA, Lober RM, **Gutmann DH**. KIAA1549:BRAF expression establishes a permissive tumor microenvironment through NF κ B-mediated CCL2 production. Neoplasia 21:52-60, 2018. PMID: 30504064
436. Khatua S, **Gutmann DH**, Packer RJ. Neurofibromatosis type 1 and optic pathway glioma – the molecular interplay and therapeutic insights. Pediatric Blood & Cancer 65: Epub March, 2018. PMID: 29049847
437. Duron C, Pan Y, **Gutmann DH**, Hardin J, Raduns kaya A. Variability of betweenness centrality and its effect on identifying essential genes. Bulletin of Mathematical Biology Epub Oct 22, 2018. PMID: 30350013
438. Eby NS, Griffith JL, **Gutmann DH**, Morris SM. Adaptive functioning in children with Neurofibromatosis type 1: Relationship to cognition, behavior and T2-hyperintensities. Dev Med Child Neurol 61:972-978, 2019. PMID: 30659594
439. Aldape K, Brindle KM, Chesler L, Chopra R, Gajjar A, Gilbert MR, Gottardo N, **Gutmann DH**, Hargrave D, Holland EC, Jones DTW, Joyce JA, Kearns P, Kieran MW, Mellinghoff IK, Merchant M, Pfister SM, Pollard SM, Ramaswamy V, Rich JN, Robinson GW, Rowitch DH, Sampson JH, Taylor MD, Workman P, Gilbertson RJ. Challenges to curing primary brain tumors. Nature Reviews Clinical Oncology 16:509-520, 2019. PMID: 30733593
440. Anastasaki C, Rensing N, Johnson KJ, Wong MJ, **Gutmann DH**. Neurofibromatosis type 1 (*Nf1*)-mutant mice exhibit increased sleep fragmentation. J Sleep Res e12816, 2019. PMID: 30609083
441. Haage V, Semtner M, Oliveira-Vidal R, Perez-Hernandez D, Pong WW, Chen Z, Hambardzumyan D, Magrini V, Ly A, Walker J, Mardis E, Mertins P, Sauer S, Kettenmann H, **Gutmann DH**. Comprehensive gene expression meta-analysis identifies signature genes that distinguish microglia from peripheral monocytes/macrophages in health and glioma. Acta Neuropathologica Comm 7:20, 2019. PMID: 30764877
442. Anastasaki C, **Gutmann DH**. Commentary: Identification of mutation regions on *NF1* responsible for high- and low-risk development of optic pathway glioma in Neurofibromatosis type 1. Frontiers in Genetics 10:115, 2019. PMID: 30881378
443. Haage V, Elmadany N, Roll L, Faissner A, **Gutmann DH**, Semtner M, Kettenmann H. Tenascin C regulates multiple microglia functions through TLR4 signaling and HDAC1. Brain Behavior and Immunity 81:470-483, 2019. PMID: 31271872
444. Guo X, Pan Y, **Gutmann DH**. Genetic and genomic alterations differentially dictate low-grade glioma growth through cancer stem cell-specific chemokine recruitment of T cells and microglia. Neuro-Oncology 21:1250-1262, 2019. PMID: 31111915 [chosen for editorial]
445. Gaudioso C, Listernick R, Fisher MJ, Campen CJ, Paz A, **Gutmann DH**. Neurofibromatosis 2 (NF2) in children presenting during the first decade of life. Neurology 93:e964-e967, 2019. PMID: 31363058

446. Buono FD, Grau LE, Moore BA, Sprong ME, Barry D, Morford K, Johnson KJ, **Gutmann DH**. Neurofibromatosis Type 1 Pain Symptomatology, Functional Daily Impact, and Pain Management: Patients Perspectives. *J Pain Res* 12:2555-2561, 2019. PMID: 31692483
447. **Gutmann DH**, Kettenmann H. Microglia/macrophages as central drivers of brain tumor pathobiology. *Neuron* 104:442-449, 2019. PMID: 31697921
448. Wright-Jin E, **Gutmann DH**. Microglia as dynamic cellular mediators of brain function. *Trends in Molecular Medicine* 25:967-979, 2019. PMID: 31597593
449. Wong WH, Junck L, Druley TE, **Gutmann DH**. NF1-glioblastoma clonal profiling reveals *KMT2B* mutations as potential somatic oncogenic events. *Neurology* 93:1067-1069, 2019. PMID: 31690684
450. Buonfiglioli A, Efe EE, Guneykaya D, Ivanov A, Huang Y, Orlowski E, Kruger C, Deisz RA, Markovic D, Fluh C, Newman AG, Schneider UC, Beule D, Wolf SA, Dzaye O, **Gutmann DH**, Semtner M, Kettenmann H, Lehnardt S. let-7 microRNAs regulate microglia function and suppress glioma growth through Toll-like receptor 7. *Cell Reports* 29:3460-3471, 2019. PMID: 31825829
451. Payne JM, Hearps SJC, Walsh KS, Paltin I, Bartin B, Ullrich NJ, Haebich KM, Coghill D, Gioia GA, Cantor A, Cutter G, Tonsgard JH, Viskochil D, Rey-Casserly C, Schorry EK, Ackerson JD, Klesse L, Fisher MJ, **Gutmann DH**, Rosser T, Packer RJ, Korf B, Acosta MT, North KN. Reproducibility of cognitive endpoints in clinical trials: lessons from neurofibromatosis type 1. *Ann Clin Transl Neurol* 6:2555-2565, 2019. PMID: 31797581
452. Zhang M, Bhat T, **Gutmann DH**, Johnson KJ. Melanoma in individuals with Neurofibromatosis type 1: A retrospective study. *Dermatology Online Journal* 25: pii.13030, 2019. PMID:32045143
453. deAndrade Costa A, **Gutmann DH**. Brain Tumors in Neurofibromatosis Type 1. *Neuro-Oncology Advances* 1:vdz040, 2019. PMID: 32642668
454. Payne JM, Haebich KM, MacKenzie R, Walsh KS, Hearps SJC, Coghill D, Barton B, Pride NA, Ullrich NJ, Acosta MA, Bellgrove M, North KN for the **NF Clinical Trials Consortium**. Cognition, attention deficit/hyperactivity disorder symptoms and functional impairment in children with neurofibromatosis type 1: complex relationships. *J Attn Dis* 14:10870, 2019. PMID: 31838937
455. Anastasaki C*, Wegscheid ML*, Hartigan K, Papke JB, Kopp ND, Chen J, Dougherty JD, Cobb O, **Gutmann DH**. Human iPSC-derived neurons and cerebral organoids establish differential effects of germline *NF1* gene mutations. *Stem Cell Reports* 14: 541-550, 2020. *co-first authors PMID: 32243842
456. Guo X, Pan Y, Xiong M, Sanapala S, Anastasaki C, Cobb O, Dahiya S, **Gutmann DH**. Midkine activation of CD8⁺ cells establishes a neuron-immune-cancer axis responsible for low-grade glioma growth. *Nat Commun* 11: 2177, 2020. PMID: 32358581.
457. Packer RJ, Iavarone A, Jones DTW, Blakeley JO, Bouffet E, Fisher MJ, Hwang E, Hawkins C, Kilburn L, MacDonald R, Pfister SM, Rood B, Rodriguez FJ, Tabori U, Ramaswamy V, Zhu Y, Fangusaro J, Johnston SA, **Gutmann DH**. Implications of New Understanding of Gliomas in Children and Adults with NF1: Report of a Consensus Conference. *Neuro-Oncology* 22:773-784, 2020. PMID: 32055852
458. Gutmann DH. The Sociobiology of Brain Tumors. *Adv Exp Med Biol* 1225:115-125, 2020. PMID: 32030651
459. Elmadany N, Logiaccio F, Buofiglioli A, Haage V, Wright-Jin EC, Schattenberg A, Papawassiliou R, Kettenmann H, Semtner M, **Gutmann DH**. Neurofibromatosis 1-mutant microglia exhibit sexually dimorphic cyclic AMP-dependent purinergic defects. *Neurobiol Dis* 144:10530, 2020. PMID: 32736084
460. Mahdi J, Goyal MS, Griffith J, Morris SM, **Gutmann DH**. Non-optic pathway tumors in children with Neurofibromatosis type 1 (NF1). *Neurology* 95:e1052-e1059, 2020. PMID: 32300062
461. Godec A, Jayasinghe R, Chrisinger JSA, Prudner B, Ball T, Wang Y, Srihari D, Kaushal M, Dietz H, Zhang X, Pekmezci M, Dahiya S, Tao Y, Luo J, Van Tine BA, Ding L, **Gutmann DH**, Hirbe AC. Whole exome sequencing reveals the maintained polyclonal nature from primary to metastatic malignant peripheral nerve sheath tumor in two patients with NF1. *Neuro-Oncology Advances* 2:i75-i84, 2019. PMID: 32642734
462. Ullrich NJ, Prabhu SP, Reddy AT, Fisher MJ, Packer R, Goldman S, Robison NJ, **Gutmann DH**, Viskochil DH, Allen JC, Korf B, Cantor A, Cutter G, Thomas C, Perentesis JP, Vinks AA, Manley PE, Chi SN, Kieran MW. Phase II Study of Oral mTOR Inhibitor Everolimus (RAD001) for Recurrent, Radiographic-Progressive Neurofibromatosis Type 1-Associated Pediatric Low-Grade Glioma. *Neuro-Oncology* 22:1527-1535, 2020. PMID: 32236425
463. Lauko A, Mu Z, **Gutmann DH**, Maik UP, Lathia JD. Junctional adhesion molecules in cancer: a paradigm for the diverse functions of cell-cell interactions in tumor progression. *Cancer Res* 80:4878-4885, 2020. PMID: 32816855

464. Heidary G, Fisher MJ, Liu GT, Ferner RE, **Gutmann DH**, Listernick R, Kapur K, Loguidice M, Ardern-Holmes SL, Avery RA, Hammond C, Hoffman RO, Hummel TR, Kuo A, Reginald YAR, Ullrich NJ. Visual field outcomes in children treated for neurofibromatosis type 1-associated optic pathway gliomas: A multi-center retrospective study. *J Am Assoc Pediatr Ophthalmol Strabismus* 20:S1091-8531, 2020. PMID: 33221469
465. Peng AYT, Agrawal I, Ho WY, Yen Y-C, Pinter AJ, Phua QXC, Koh KB, Chang J-C, Sanford E, Man JHK, Wong P, **Gutmann DH**, Tucker-Kellogg G, Ling S-C. Loss of TDP-43 in astrocytes leads to motor deficits by triggering A1-like reactive phenotype and tri-glia dysfunction. *Proc Natl. Acad Sci USA* 117:29101-29112, 2020. PMID: 33127758
466. Ullrich N, Prabhu S, Packer R, Goldman S, Robison N, Allen J, Viskochil D, **Gutmann D**, Perentes J, Korf B, Fisher M, Kieran M. Visual outcomes following everolimus targeted therapy for neurofibromatosis type 1-associated optic pathway gliomas in children. *Ped Blood Cancer e28833*, 2020. PMID: 33336845
467. Brossier NM, Thondapu S, Cobb OM, Dahiya S, **Gutmann DH**. Temporal, spatial, and genetic constraints contribute to the patterning and penetrance of murine Neurofibromatosis-1 optic glioma. *Neuro-Oncology* 23:625-637, 2021. PMID: 33080011
468. Mo J, Anastasaki C, Chen Z, Shipman T, Papke J, Yin K, **Gutmann DH***, Le LQ*. Humanized neurofibroma model from human induced pluripotent stem cells delineates tumor pathogenesis and developmental origins. *J. Clin Invest.* 131:e139807, 2021. *co-corresponding authors. PMID: 33108355
469. Nix JS, Yuan M, Imada EL, Ames H, Marchionni L, **Gutmann DH**, Rodriguez FJ. Global microRNA profiling identified miR-10b-5p as a regulator of neurofibromatosis 1 (NF1)-glioma migration. *Neuropath Appl Neurobiol* 47:96-107, 2021. PMID: 32603552
470. Fisher MJ, Shih C-S, Rhodes SD, Armstrong AE, Wolters PL, Dombi E, Zhang C, Angus SP, Johnson GL, Allen JC, Ullrich NJ, Goldman S, **Gutmann DH**, Plotkin SR, Rosser T, Robertson KA, Widemann BC, Smith AE, Bessler WK, He Y, Park S-J, Mund JA, Jiang L, Bijangi-Visheharaei K, Thomas Robinson C, Cutter GR, Korf PR, Blakeley JO, Clapp DW. Genetically engineered mice and kinase enrichment proteomics inform a Neurofibromatosis Clinical Trials Consortium phase 2 clinical trial of cabozantinib (XL184) for neurofibromatosis type 1 related plexiform neurofibromas. *Nat. Med.* 27:165-173, 2021. PMID: 33442015
471. Jain M, Thumu SCR, Verma V, Lu PPY, Soman S, **Gutmann DH**, Nair D, Clement JP, Ramanan N. SRF is required for maintenance of astrocytes in non-reactive state in the mammalian brain. *eNeuro* 8:447, 2021. PMID: 33441399
472. Fisher MJ*, Jones DTW, Li Y, Guo X, Sonawane PS, Waanders AJ, Phillips JJ, Weiss WA, Resnick AC, Gosline S, Banerjee J, Guinney J, Gnekow A, Kandels D, Foreman NK, Korshunov A, Ryzhova M, Massimi L, Gururangan S, Kieran MW, Fouladi M, Sato M, Ora I, Holm S, Markham SJ, Beck P, Jager N, Wittmann A, Sommerkamp AC, Sahm F, Pfister SM, **Gutmann DH***. Integrated molecular and clinical analysis of low-grade gliomas in children with Neurofibromatosis type 1 (NF1). *Acta Neuropathologica* 141:605-617, 2021. *co-corresponding authors. PMID: 33585982
473. Rahn RM, Weichselbaum CT, **Gutmann DH**, Dougherty JD, Maloney SM. Shared developmental gait disruptions across two models of neurodevelopmental disorders. *J. Neurodevelopmental Dis.* 13:10, 2021. PMID: 33743598
474. Ramirez E, Morris SM, Turner TN, **Gutmann DH**. Familial lipomas without classic Neurofibromatosis-1 caused by a missense germline *NF1* mutation. *Neurology: Genetics* 7:e582, 2021. PMID:33884301
475. Legius E, Messiaen L, Wolkenstein P, Pancza P, Avery RA, Berman Y, Blakeley J, Babovic-Vuksanovic D, Cunha K, Ferner R, Fisher MJ, Friedman JM, **Gutmann DH**, Kehrer-Sawatzki H, Korf BR, Mautner V-F, Peltonen S, Rauen KA, Riccardi V, Schorry E, Stemmer-Rachamimov A, Stevenson DA, Tadini G, Ullrich N, Viskochil D, Wimmer K, Yohay K, International Consensus Group on Neurofibromatosis Diagnostic Criteria (I-NF-DC), Huson SM, Evans DG, Plotkin SR. Revised diagnostic criteria for neurofibromatosis 1 and Legius syndrome: an international consensus recommendation. *Genet Med* 23:1506-1513, 2021. PMID:34012067
476. Pan Y, Hysinger JD, Barron T, Schindler NF, Cobb O, Guo X, Yalcin B, Anastasaki C, Mulinyawe SB, Ponnuswami A, Scheaffer S, Ma Y, Chang K-C, Xia X, Toonen JA, Lennon JJ, Gibson EM, Huguenard J, Liao LM, Goldberg JL, Monje M*, **Gutmann DH***. *NF1* mutation drives neuronal activity-dependent optic glioma initiation. *Nature* 594:277-282, 2021. *co-corresponding authors. Highlighted in a *Nature News & Views* and a *Cancer Cell* commentary. PMID: 34040258
477. De Andrade Costa A, Chatterjee J, Cobb O, Sanapala S, Guo X, Dahiya S, **Gutmann DH**. RNA sequence analysis reveals ITGAL/CD11A as a stromal regulator of murine low-grade glioma growth. *Neuro-Oncology* 24:14-26, 2022. PMID: 34043012

478. Milde T, Rodriguez FJ, Barnholtz-Sloan JS, Patil N, Eberhart CG, **Gutmann DH**. Reimaging pilocytic astrocytomas in the context of pediatric low-grade gliomas. *Neuro-Oncology* 23(10):1634-1646, 2021. PMID: 34131743
479. Wegscheid ML, Anastasaki A, Hartigan KA, Cobb OM, Papke JB, Traber JN, Morris SM, **Gutmann DH**. Patient-derived iPSC-cerebral organoid modeling of the 17q11.2 microdeletion syndrome establishes CRLF3 as a critical regulator of neurogenesis. *Cell Reports* 36:109315, 2021. PMID: 34233200.
480. Chen J, Sinha N, Cobb O, Liu C, Ersen A, Phillips JJ, Tihan T, **Gutmann DH**, Dahiya S. Immune cell analysis of pilocytic astrocytomas reveals sexually dimorphic brain region-specific differences in T cell content. *Neuro-Oncology Advances* 3:vdab068, 2021. PMID: 34286276
481. McNulty SM, Schwetye KE, Ferguson C, Storer CE, Ansstas G, Kim AH, **Gutmann DH**, Rubin JB, Head RD, Dahiya S. BRAS mutations may identify a clinically distinct subset of glioblastoma. *Sci Rep.* 11(1):19999, 2021. PMID: 34625582
482. Morris SM, Gupta A, Kim S, Foraker RE, **Gutmann DH**, Payne PRO. Predictive modeling for clinical features associated with Neurofibromatosis type 1. *Neurology: Clinical Practice* 11:497-505, 2021. PMID: 34987881
483. Chatterjee J, Sanapala S, Cobb O, Bewley A, Goldstein AK, Cordell E, Ge X, Garbow JR, Holtzman MJ, **Gutmann DH**. Asthma reduces glioma formation by T cell decorin-mediated inhibition of microglia. *Nature Comm* 12:7122, 2021. PMID: 34880260
484. Kotch C, Avery R, Getz KD, Bouffet E, de Blank P, Listernick R, **Gutmann DH**, Bornhorst M, Campen C, Liu GT, Aplenc R, Li Y, Fisher MJ. Predictors of treatment refractory and relapsed optic pathway glioma in children with Neurofibromatosis type 1. *Neuro-Oncology* 24:1377-1386, 2022. PMID: 35018469
485. Brossier NM, Strahle JM, Cler SJ, Wallendorf M, **Gutmann DH**. Children with supratentorial midline pilocytic astrocytomas exhibit multiple progressions and acquisition of neurologic deficits over time. *Neuro-Oncol Advances* 4:vdab187, 2022. PMID: 35036914
486. Schurr SV, Hartigan KA, **Gutmann DH**. Human induced pluripotent stem cell modeling of neurofibromatosis type 1. *Adv. Stem Cell Biol.* (in press).
487. Costa AA, Chatterjee J, Cobb O, Cordell E, Chao A, Scheaffer S, Goldstein A, Dahiya S, **Gutmann DH**. Immune deconvolution and temporal mapping identifies stromal targets and developmental intervals for abrogating murine low-grade optic glioma formation. *Neuro-Oncology Advances* 4:vdab194, 2022. PMID: 35187488
488. Anastasaki C, Orozco P, **Gutmann DH**. RAS and Beyond: the many faces of the neurofibromatosis type 1 protein. *Disease Models and Mechanisms* 15:dmm049362, 2022. PMID: 35188187
489. Anastasaki C, Wilson AF, Chen A, Wegscheid ML, **Gutmann DH**. Generation of human induced pluripotent stem cell-derived cerebral organoids for cellular and molecular characterization. *STAR Protocols* 3:101173, 2022. PMID: 35199037
490. Bewley AF, Akinwe TM, Turner TN, **Gutmann DH**. Neurofibromatosis-1 gene mutation profiles differ between syndromic disease and sporadic cancers. *Neurology: Genetics* 8(4):e200003, 2022. PMID: 37435433
491. Anastasaki C, Mo J, Chen J-K, Chatterjee J, Pan Y, Scheaffer SM, Cobb O, Monje M, Le LQ, **Gutmann DH**. Neuronal hyperexcitability drives central and peripheral nervous system tumor progression in models of Neurofibromatosis 1. *Nature Commun* 13:2785, 2022. PMID: 35589737
492. Cordell EC, Alghamri MS, Castro MG, **Gutmann DH**. T lymphocytes as dynamic regulators of glioma pathobiology. *Neuro-Oncology* 24:1647-1657, 2022. PMID: 35325210
493. Rosen K, Cobb O, Gavney D, Morris SM, **Gutmann DH**. Identifying predictors of patient return to a tertiary neurofibromatosis (NF) subspecialty clinic. *J. Ped.* 11:S0022-3476, 2022. PMID: 35561805
494. Plotkin SR, Messiaen L, Legius E, Pancza P, Avery RA, Blakeley J, Babovic-Vuksanovic D, Ferner R, Fisher MJ, Friedman JM, Giovannini M, **Gutmann DH**, Hanemann OC, Kalamarides M, Kehrer-Sawatzski H, Korf BR, Mautner VF, MacCollin M, Papi L, Rauen KA, Riccardi V, Schorry E, Smith M, Stemmer-Rachamimov A, Stevenson DA, Ullrich NJ, Viskochil D, Winner K, Yohay K, International Consensus Group on Neurofibromatosis Diagnostic Criteria, Huson SM, Wolkenstein P, Evan DG. Updated diagnostic criteria for neurofibromatosis type 2 and schwannomatosis: an international consensus recommendation. *Genet Med* 8:S1098-3600, 2022. PMID: 35674741
495. Dougherty JD, Marrus N, Maloney SE, Yip B, Sandin S, Turner TN, Selmanovic D, Kroll KL, **Gutmann DH**, Constantino JN, Weiss LA. Can the “female protective effect” liability threshold model explain sex differences in autism spectrum disorder? *Neuron* 20:S08896-6273, 2022. PMID: 35868305

496. Anastasaki C, Chatterjee J, Cobb O, Sanapala S, Scheaffer SM, De Andrade Costa A, Wilson AF, Kernan CM, Zafar AH, Ge X, Garbow JR, Rodriguez FJ, **Gutmann DH**. Human induced pluripotent stem cell engineering establishes a humanized mouse platform for pediatric low-grade glioma modeling. *Acta Neuropathologica Comm* 10:120, 2022. PMID: 35986378
497. Paolicelli RC, Sierra A, Stevens B, Tremblay M-E, Aguzzi A, Ajami B, Amit I, Audinat E, Bechmann I, Bennett M, Bennett F, Bessis A, Biber K, Bilbo S, Blurton-Jones M, Boddeke E, Brites D, Brône B, Brown GC, Butovsky O, Carson MJ, Castellano B, Colonna M, Cowley SA, Cunningham C, Davalos D, De Jager PL, de Strooper B, Denes A, Eggen BJL, Eyo U, Galea E, Garel S, Ginhoux F, Glass CK, Gokce O, Gomez-Nicola D, González B, Gordon S, Graeber MB, Greenhalgh AD, Gressens P, Greter M, **Gutmann DH**, Haass C, Heneka MT, Heppner FL, Hong S, Hume D, Jung S, Kettenmann H, Kipnis J, Koyama R, Lemke G, Lynch M, Majewska A, Malcangio M, Malm T, Mancuso R, Masuda T, Matteoli M, McColl BW, Miron VE, Molofsky AV, Monje M, Mracsco E, Nadjar A, Neher JJ, Neniskyte U, Neumann H, Noda M, Peng B, Peri F, Perry VH, Popovich PG, Pridans C, Priller J, Prinz M, Ragozzino D, Ransohoff RM, Salter MW, Schaefer A, Schafer DP, Schwartz M, Simons M, Smith CJ, Streit WJ, Tay TL, Tsai L-H, Verkhratsky A, Bernhardt R, Wake H, Wittamer V, Wolf SA, Wu L-J, Wyss-Coray T. Microglia states and nomenclature: a field at its crossroads. *Neuron* 10(21):3458-3483, 2022. PMID: 36327895
498. Cross K, Salehi A, Skidmore A, Gauvain K, **Gutmann DH**, Abdelbaki MS, Limbrick DD. MRI-guided interstitial thermal therapy for deep-seated gliomas in children with neurofibromatosis type 1. *Child's Nervous System* 39: 787-791, 2023. PMID: 36107223
499. Logiaccio F, Grzegorzec LC, Cordell EC, Popp O, Mertens P, **Gutmann DH**, Kettenmann H, Semtner M. Neurofibromatosis type 1-dependent alterations in mouse microglia function are not cell-intrinsic. *Acta Neuropath Comm* 11:36, 2023. PMID: 36890585
500. Anastasaki C, Gao Y, **Gutmann DH**. Neurons as stromal drivers of nervous system cancer formation and progression. *Developmental Cell* 58: 81-93. 2023. PMID: 36693322
501. Chen Z, Soni N, Pinero G, Giotti B, Edkins D, Lindblad K, Ross JL, Tsankova N, **Gutmann DH**, Lira S, Lujambio A, Gosen E, Tsankov A, Hambardzumyan D. Monocyte depletion enhances neutrophil influx and proneural to mesenchymal transition in glioblastoma. *Nat Commun.* 14:1839, 2023. PMID: 37012245
502. Winkler F, Venkatesh HS, Amit M, Batchelor T, Demr TE, Deneen B, **Gutmann DH**, Hervey-Jumper S, Kuner T, Mabbott D, Platten M, Rolls A, Sloan E, Wang TC, Wick W, Vemkataramani V, Monje M. Cancer Neuroscience: state of the field, emerging directions. *Cell* 186:1689-1707, 2023. PMID:37059069
503. Tang T, **Gutmann DH**. Neurofibromatosis type 1-associated optic pathway gliomas: current challenges and future prospects. *Cancer Manag Res.* 15:667-681, 2023. PMID: 37465080
504. Romo CG, Piotrowski AF, Campian JL, Diate J, Rodriguez FJ, Bale TA, Dahiya S, **Gutmann DH**, Lucas C-H G, Prichett L, Mellinghoff I, Blakeley JO. Clinical, histological and molecular features of gliomas in adults with neurofibromatosis type 1. *Neuro-Oncology* 25(8):1474-1486, 2023. PMID: 36840626
505. Milde T, Fangusaro J, Fisher MJ, Hawkins C, Rodriguez FJ, Tabori U, Witt O, Zhu Y, **Gutmann DH**. Optimizing preclinical pediatric low-grade glioma models for meaningful clinical translation. *Neuro-Oncology* 25(11):1920-1931, 2023. PMID: 37738646
506. Chen Z, Giotti B, Kaluzova M, Hertig CJ, Pinero G, Puigdelloses Vallcorba M, Cristea S, Ross J, Ackley J, Maximov V, Szulzewsky F, Marquez M, Angione A, Nichols N, Tsankova N, Michor F, Shayakhmetov D, **Gutmann DH**, Tsankov A, Hambardzumyan D. An IL-1b/ILR1 signaling loop between myeloid and tumor cells drives glioblastoma progression. *J. Clin Invest.* 133(22):e163802, 2023. PMID: 37733448
507. Wilson AF, Barakat R, Mu R, Karush LL, Gao Y, Hartigan KA, Chen YK, Shu H, Turner TN, Maloney SE, Mennerick SJ, **Gutmann DH**, Anastasaki C. A common single nucleotide variant in the cytokine receptor-like factor-3 (CRLF3) gene causes neuronal deficits in human and mouse cells. *Human Mol Genet* 32(24):3342-3352, 2023. PMID: 37712888
508. Kuhrt LD, Motta E, Elmadany N, Weidling H, Frisetsche-Gunther R, Efe IE, Cobb O, Chatterjee J, Boggs LG, Schnauss M, Diecke S, Semtner M, Anastasaki C, **Gutmann DH***, Kettenmann H*. Neurofibromatosis 1 (NF1) mutation results in impaired function of human induced pluripotent stem cell-derived microglia. *Disease Models Mechanisms* 16:dmm049861, 2023. *co-corresponding authors. PMID: 37990867
509. Soucy JR, Aguzzi EA, Cho J, Gilhooley MJ, Keuthan C, Luo Z, Monavarfeshani A, Saleem MA, Wang XW, Wohlschlegel J; **RReSTORE Consortium**; Baranov P, Di Polo A, Fortune B, Gokoffski KK, Goldberg JL, Guido W,

- Kolodkin AL, Mason CA, Ou Y, Reh TA, Ross AG, Samuels BC, Welsbie D, Zack DJ, Johnson TV. Retinal ganglion cell repopulation for vision restoration in optic neuropathy: a roadmap from the RReSTORe Consortium. *Mol Neurodegeneration*. 18:64, 2023 PMID: 37735444
510. Fangusaro J, Jones DT, Packer RJ, **Gutmann DH**, Milde T, Witt O, Mueller S, Fisher M, Hansford JR, Tabori U, Hargrave D, Bandopadhyay P. Pediatric Low-Grade Glioma: State of the art and ongoing challenges. *Neuro-Oncology* 26:25-37, 2024. PMID: 37944912
 511. Thumu SCR, Jain M, Soman S, Das S, Verma V, Nandi A, **Gutmann DH**, Jayaprakash B, Nair D, Clement JP, Maranthe S, Ramanan N. SRF-deficient astrocytes provide neuroprotection in mouse models of excitotoxicity and neurodegeneration. *ELife* 13:e95577, 2024. PMID: 38289036
 512. Chatterjee J, Sauerbeck AD, Chen J-K, Qi X, Ouyang M, Boggs LG, Idate R, Marco Y Marquez LI, Kummer TT, **Gutmann DH**. Brain injury drives optic glioma formation through neuron-glia signaling. *Acta Neuropathologica Communications* 12:21, 2024. PMID: 38308315
 513. Tang Y, Chatterjee J, Waggoner N, Bozeman S, **Gutmann DH**. Estrogen-induced glial IL-1 β mediates extrinsic retinal ganglion cell vulnerability in murine *Nf1* optic glioma. *Annals of Clinical and Translational Neurology* 11:812-818, 2024. PMID: 38229454
 514. Furnari FB*, Anastasaki C, Bian S, Fine HA, Koga T, Le LQ, Rodriguez FJ, **Gutmann DH***. Stem cell modeling of nervous system tumors. *Disease Models Mechanisms* 17:dmmm050533, 2024. *co-corresponding authors. PMID: 38353122
 515. Kerashvili N, **Gutmann DH**. The management of neurofibromatosis type 1 (NF1) in children and adolescents. *Expert Reviews of Neurotherapeutics* 24:409-420, 2024. PMID: 38406862
 516. Pan Y*, Hysinger JD, Yalcin B, Lennon JJ, Byun Y, Raghavan P, Schindler NF, Anastasaki C, Chatterjee J, Ni L, Xu Haojun, Malacon K, Jahan SM, Ivex AE, Aghoghovwia BE, Mount CW, Nagaraja S, Scheaffer S, Attardi LD, **Gutmann DH***, Monje M*. *Nf1* mutation impairs activity-regulated oligodendroglial plasticity and motor learning. *Nature Neuroscience* May 30, 2024. *co-corresponding authors. PMID: 38816530
 517. Sandin S, Yip BHK, Yin W, Weiss LA, Dougherty J, Fass S, Constantino JN, Hailin Z, Turner TN, Marrus N, **Gutmann DH**, Sanders SJ, Christoffersson B. Examining sex differences in autism heritability. *JAMA Psychiatry* April 17, 2024. PMID: 38630491
 518. Anastasaki C, Chatterjee J, Koleske JP, Gao Y, Bozeman SL, Kernan CM, Marco Y Marquez LI, Chen J-K, Kelly CE, Blair CJ, Dietzen DJ, Kesterson RA, **Gutmann DH**. *NF1* mutation-driven neuronal excitability sets a threshold for tumorigenesis and therapeutic targeting of murine optic glioma. *Neuro-Oncology* April 12, 2024. PMID: 38607967
 519. O'Hare P, Cooney T, de Blank P, **Gutmann DH**, Kieran M, Milde T, Fangusaro J, Fisher M, Avula S, Packer R, Fukuoka K, Mankad K, Mueller S, Waanders AJ, Opocher E, Bouffet E, Raabe E, Natacha EW, Azizi A, Robison N, Hernaiz-Driever P, Russo M, Schouten N, van Tilburg C, Sehested A, Grill J, Bandopadhyay P, Kilday J-P, Witt O, Ashley DM, Ertl-Wagner BB, Tabori U, Hargrave D. Resistance, rebound and recurrence regrowth patterns in pediatric low-grade glioma: a modified Delphi approach to develop international consensus-based definitions. *International Pediatric Low-Grade Glioma Coalition*. *Neuro-Oncology* May 14:noae074, 2024. PMID: 38743009
 520. Kotch C, de Blank P, **Gutmann DH**, Fisher MJ. Low grade glioma in children with neurofibromatosis type 1: surveillance, treatment indications, management, and future directions. *Child's Nervous System*. May 5, 2024. PMID: 38704493
 521. Chan A, Zhang K, Martin G, Bano S, Chatterjee J, Mahto S, Wang A, **Gutmann DH**, Brossier NM. Maternal obesogenic diet operates at the tumor cell of origin to increase incidence and decrease latency of Neurofibromatosis type 1 optic glioma. *Neuro-Oncology* 2024; Jul 18: noae136. PMID: 39023130
 522. Huang WL, Perrault EN, Burbrair A, Mattson BJ, **Gutmann DH**, Mabbott DJ, Cukierman E, Repasky EA, Sloan EK, Zong H, Demir IE, Saloman JL, Borniger JC, Hu J, Dietrich J, Breunig JJ, Çfcibasi K, Kasm KAA, Valiente M, Wintermark M, Acharya MM, Scheff MN, D'Silva NJ, Vermeer PD, Wong RJ, Talbot S, Hervey-Jumper SL, Wang TC, Ye Y, Pan Y, Bunimovich YL, Amit M. Integrating priorities at the intersection of cancer and neuroscience. *Cancer Cell* 2024; Oct 15: S1535-6108. PMID: 39423816
 523. **Gutmann DH**, Boehm JS, Karlsson EK, Pardon E, Seshadri M, Wallis D, Snyder JC. Precision preclinical modeling to advance cancer treatment. *J National Cancer Institute* 2024; Oct 9: djae249. PMID: 39383197

524. Tarnawsky T, Oh I, Hillis E, Gupta A, **Gutmann DH**. Early young adult death underscores the need for adolescent/young adult transition programs for teenagers with Neurofibromatosis type 1 (NF1). *J. Pediatr* 2024; Nov 16: 114413. PMID:39557385.
525. Barakat R, Chatterjee H, Mu R, Qi X, Gu X, Smirnov I, Cobb O, Gao K, Barnes A, Kipnis J, **Gutmann DH**. Human single cell RNA-sequencing reveals a targetable CD8⁺ exhausted T cell population that maintains murine low-grade glioma growth. *Nature Commun* 15:10312, 2024. PMID:39609412
526. Katz J, Ratnam S, Habiby R, Listernick RL, **Gutmann DH**. Precocious puberty in children with Neurofibromatosis type 1 (NF1). *J Peds* (in press). PMID: 39674537
527. Gupta A, Hillis E, Oh I, Morris SM, Abrams Z, Foraker R, **Gutmann DH**, Payne PRO. Evaluating dimensionality reduction of comorbidities for predictive modeling in individuals with Neurofibromatosis type 1. *JAMIA Open* 8(1):ooae157, 2025. PMID: 39674537
528. Chatterjee J, Qi X, Mu R, Eligator T, Ouyang M, Bozeman SL, Rodgers R, Aggarwal S, Campbell DE, Schrieffer LA, Baldridge MT, **Gutmann DH**. Intestinal Bacteroides drives glioma progression by regulating CD8⁺ T cell tumor infiltration. *Neuro-Oncology* (in press). PMID: 39868555
529. Ng JK, Chen Y, Akinwe TM, Heins HB, Mehinovic E, Chang C, **Gutmann DH**, Gurnett CA, Payne ZL, Manuel JG, Karchin R, Turner TN. Proteome-Wide Assessment of Differential Missense Variant Clustering in Neurodevelopmental Disorders and Cancer. *Cell Genomics* 4:100807, 2025. PMID: 40073865
530. Lucas CG, Gross AM, Romo CG, Dehner CA, Lazar AJ, Miettinen M, Pekmezci M, Quezado M, Rodriguez FJ, Stemmer-Rachamimov A, Viskochil D, Perry A, Symposium on Atypical Neurofibroma State of the Science Members (**Gutmann DH**). Consensus recommendations for an integrated diagnostic approach to peripheral nerve sheath tumors arising in the setting of Neurofibromatosis type 1. *Neuro-Oncology* 27(3): 616-624, 2025. PMID: 39500722
531. **Gutmann DH**, Anastasaki C, Gupta A, Hou Y, Morris SM, Payne JM, Raber J, Tomchik SM, Van Aelst L, Walker JA, Yohay KH. Cognition and behavior in Neurofibromatosis type 1: Report and perspective from the Cognition and Behavior in NF1 (CABIN) Task Force. *Genes Dev.* (in press). PMID:40127956
532. Chen A, Wang H, Li X, Anastasaki C, **Gutmann DH**. IRX2 and NPTX1 differential regulation of beta-catenin underlies MEK-mediated proliferation in human neuroglial cells. *Genes Dev.* (in press).
533. Barton B, Wolters PL, Walsh KS, Ullrich NJ, Rosser T, Tonsgard J, Viskochil D, Schorry E, Klesse LJ, Fisher MJ, **Gutmann DH**, Packer EJ, Korf B, Acosta MR, North KN, Payne JM. Psychosocial functioning and determinants of the health-related quality of life in children with neurofibromatosis type 1 and cognitive impairments. *J. Neuro-Oncol.* (in press).

Non-peer-reviewed manuscripts

1. **Gutmann DH**, Collins FS. The neurofibromatosis type 1 gene product and its protein product, neurofibromin. *Neuron* 10:335-343, 1993. PMID: 8461130
2. **Gutmann DH**, Collins FS. The neurofibromatosis type 1 (NF1) gene: Beyond positional cloning. *Arch. Neurol* 50:1185-1193, 1993. PMID: 8215978
3. **Gutmann DH**. The neurofibromatoses: New insights into old problems. *Current Opinions in Neurology* 7:166-171, 1996.
4. **Gutmann DH**. Cell Motility and the Neurofibromatosis 2 tumor suppressor gene. *Neurology Network Commentary* 1: 191-196, 1997.
5. **Gutmann DH**. Recent insights into neurofibromatosis 1: clear genetics progress. *Archives of Neurology* 55:778, 1998. PMID: 9626767
6. **Gutmann DH**. The TSC2 gene product, tuberlin, functions as a Rab5 GTPase activating protein (GAP) in modulating endocytosis. *Neurology Network Commentary* 1:291-295, 1998.
7. **Gutmann DH**. New insights into the molecular pathogenesis of Huntington Disease: expanding on a theme. *Neurology Network Commentary* 2:111-117, 1998.
8. **Gutmann DH**. The diagnosis and management of neurofibromatosis 1. *The Neurologist* 4:313-326, 1998.
9. Leventer RJ, **Gutmann DH**. Recent insights into the molecular genetics of human brain development. *Neurology Network Commentary* 3:127-132, 1999.

10. **Gutmann DH.** Learning disabilities in neurofibromatosis 1: sizing up the brain. *Arch Neurol* 56: 1322-1323, 1999. PMID: 10555648
11. King A, **Gutmann DH.** The question of familial meningiomas and schwannomas: NF2B or not to be? *Neurology* 54:4-5, 2000. PMID: 10636116
12. Ding H, Nagy A, **Gutmann DH,** Guha A. Astrocytoma models. *Neurosurgical Focus* 8:1-7, 2000.
13. Devere T, **Gutmann DH.** Channeling the episodic ataxias. *Neurology Network Commentary* 2001; 4(2).
14. **Gutmann DH.** Neurofibromin in the brain: Working RAS backwards. *J. Child Neurol.* 17:592-601, 2002. PMID: 12403558
15. Baser ME, Evans DGR, **Gutmann DH.** Neurofibromatosis 2. *Current Opinion in Neurology.* 16:27-33, 2003. PMID: 12544854
16. Dasgupta B, **Gutmann DH.** Neurofibromatosis 1: closing the GAP between mice and men. *Current Opinion in Genetics and Development.* 13:20-27, 2003. PMID: 12573431
17. Arun D, **Gutmann DH.** Neurofibromatosis 1. *Current Opinion in Neurology.* 17:101-105, 2004. PMID: 15021234
18. Perry A, **Gutmann DH,** Reifenberger G. Molecular pathogenesis of meningiomas. *J. Neuro-oncol.* 70:183-202, 2004. PMID: 15674477
19. Scheidenhelm DK, **Gutmann DH.** Mouse models of tuberous sclerosis complex. *J. Child Neurol.* 19:726-33, 2004. PMID: 15563020
20. Maria B, Deidrick KM, Roach ES, **Gutmann DH.** Tuberous sclerosis complex: pathogenesis, diagnosis, strategies, therapies, and future research directions. *J. Child Neurol.* 19:632-42, 2004. PMID: 15563008
21. Lusi E, **Gutmann DH.** Meningioma: An Update. *Current Opinion in Neurology.* 17:687-692, 2004. PMID: 15542977
22. Ward BA, **Gutmann DH.** Neurofibromatosis 1 – From Lab Bench to Clinic. *Pediatr. Neurol.* 32:211-8, 2005. PMID: 15797177
23. **Gutmann DH.** Using neurofibromatosis-1 to better understand and treat pediatric low-grade glioma. *J. Child Neurol.* 23:1186-1194, 2008. PMID: 18952585
24. Williams VC, Lucas J, Babcock MA, **Gutmann DH,** Korf BR, Maria BL. Neurofibromatosis type 1 revisited. *Pediatrics* 123:124-133, 2009. PMID: 19117870
25. **Gutmann DH.** Modeling human brain tumors in mice. *Brain Pathol.* 19:108-111, 2009. PMID: 19076775
26. Albers AC, **Gutmann DH.** Gliomas in patients with Neurofibromatosis type 1. *Expert Opinion in Neurotherapeutics* 9:535-539, 2009. PMID: 19344304
27. Hussain I, **Gutmann DH.** Molecular genetics of optic glioma: lessons learned from neurofibromatosis-1 genetically engineered mice. *Expert Rev. Ophthalmol.* 6:363-9, 2011.
28. Weber JD, **Gutmann DH.** De-convoluting mTOR biology. *Cell Cycle* 11:236-48, 2012. PMID: 22214661
29. **Gutmann DH.** The Taxonomy of Brain Cancer Stem Cells: What's in a Name? *Oncoscience* 1:241-7, 2014. PMID:25594016
30. Fisher MJ, Loduidice M, **Gutmann DH,** Listernick R, Ferner RE, Ullrich NJ, Packer RJ, Tabori U, Hoffman RO, Arden-Holmes SL, Hummel TR, Hargrave DR, Bouffet E, Charrow J, Bilaniak LT, Balcer LJ, D'Agostino McGowan L, Liu GT. Gender as a disease modifier in neurofibromatosis type 1 optic pathway glioma. (letter) *Ann Neurol* 75:799-800, 2014. PMID: 24740685
31. Diggs-Andrews KA, Brown JA, Gianino SM, D'Agostino McGowan L, Rubin JB, Wozniak DF, **Gutmann DH.** Gender as a disease modifier in neurofibromatosis type 1 optic pathway glioma. (letter response) *Ann Neurol* 75:800-801, 2014. PMID: 24752946
32. **Gutmann DH.** NF GEMMs Already! The power and promise of mouse tumor models. *Cancer Cell* 26(5):596-599, 2014. PMID: 25517743
33. **Gutmann DH.** Microglia in the tumor microenvironment: taking their TOLL on glioma biology. *Neuro-Oncology* 17:171-3, 2014. PMID: 25523594
34. Epstein JA, Ingram DA Jr., Hirbe AC, **Gutmann DH.** A multidisciplinary approach in neurofibromatosis 1. *Lancet Neurology* 14:30-1, 2015. PMID: 25496893
35. Anderson JL, **Gutmann DH.** Neurofibromatosis Type 1. *Handb Clin Neurol* 132:75-86, 2015. PMID: 26564071
36. Le LQ, Kesterson RA, **Gutmann DH.** Defining the research landscape for dermal neurofibromas. *Oncology Times* 38:14-15, 2016.

37. Monroe CL, Dahiya S, **Gutmann DH**. Dissecting clinical heterogeneity in neurofibromatosis type 1. *Ann Rev Pathol* 12:53-74. PMID: 28135565
38. Chheda MG, **Gutmann DH**. Using epigenetic programming to treat pediatric brain cancer. *Cancer Cell* 31:609-611, 2017. PMID: 28486100
39. Chen R, Pan Y, **Gutmann DH**. The power of the few. *Genes Dev* 31:1177-1179, 2017. PMID: 28765159
40. **Gutmann DH**. The tropism of pleiotrophin: Orchestrating glioma brain invasion. *Cell* 170:821-822, 2017. PMID: 28841413
41. **Gutmann DH**. Caddyshack Therapeutics: Overcoming glioblastoma adaptation. *Neuro-Oncology* 19:1429-1431, 2017. PMID: 28637259
42. Campen C, **Gutmann DH**. Optic pathway gliomas in neurofibromatosis type 1. *J Child Neurol* 33:73-81, 2018. PMID: 29246098
43. **Gutmann DH**. Clearing the Fog Surrounding Chemobrain. *Cell* 176:2-4, 2019. PMID: 30633904
44. Aldape K, Brindle KM, Chesler L, Chopra R, Gajjar A, Gilbert MR, Gottardo N, **Gutmann DH**, Hargrave D, Holland EC, Jones DTW, Joyce JA, Kearns P, Kieran MW, Mellinghoff IK, Merchant M, Pfister SM, Pollard SM, Ramaswamy V, Rich JN, Robinson GW, Rowitch DH, Sampson JH, Taylor MD, Workman P, Gilbertson RJ. Response to: Assembling the brain trust: the multidisciplinary imperative in neuro-oncology. *Nature Reviews Clinical Oncology* 16:522-523, 2019. PMID: 31150022
45. Hirbe AC, **Gutmann DH**. Understanding a complicated Gal-1. *Neuro-Oncology* 21:1341-1342, 2019. PMID: 31538650
46. Monje M, Borniger JC, D'Silva N, Deneen B, Dirks PB, Fattahi F, Frenette PS, Garzia L, **Gutmann DH**, Hanahan D, Hervey-Jumper SL, Hondermarck H, Hurov JB, Kepecs A, Knox SM, Lloyd AC, Magnon C, Saloman JL, Segal RA, Sloan EK, Sun C, Taylor MD, Tracey KJ, Trotman LC, Tuveson DA, Wang TC, White RA, Winkler F. Roadmap for the Emerging Field of Cancer Neuroscience. *Cell* 181:219-222, 2020. PMID: 32302564
47. Gibson EM, Bennett FC, Gillespie SM, Güler AD, **Gutmann DH**, Halpern CH, Kucenas SC, Kushida CA, Lemieux M, Liddelow S, Macauley SL, Li TQ, Quinn M, Roberts LW, Saligrama N, Taylor K, Venkatesh H, Yalçın B, Zuchero JB. How support of early career researchers can reset science in the post-COVID19 world. *Cell* 181:1445-1449, 2020. PMID: 32533917
48. Morris SM, Acosta M, Garg S, Green J, Legius E, North K, Payne JM, Weiss L, Constantino JN, **Gutmann DH**. Autism in NF1: Misuse of covariance to throw the baby out with the bath water. *Dev Med Child Neurol* 63:233-234, 2021. PMID: 32815557
49. **Gutmann DH**. Putting a stop to nonsense: Revisiting gene correction therapy for Neurofibromatosis type 1. *Molecular Therapy: Nucleic Acids*. 33:810-812, 2023. PMID: 37662971
50. Amit A, Anastasaki C, Dantzer R, Demir IE, Deneen B, Dixon K, Egeblad M, Gibson EM, Hervey-Jumper S, Hondermarck H, Magnon C, Monje M, Pan Y, Repasky EA, Scheff N, Sloan EK, Talbot S, Tracey K, Trotman LC, Vallente M, Van Aelst L, Venkataramani V, Venkatesh H, Vermeer P, Winkler F, Wong RJ, **Gutmann DH**, Borniger JC. Next directions in peripheral system cancer neuroscience. *Cancer Discovery* 14:669-673, 2024. PMID: 38571430
51. **Gutmann DH**. Leveraging murine models of the neurofibromatosis type 1 (NF1) cancer predisposition syndrome to elucidate the systems biology of pediatric low-grade gliomas. *Neuro-Oncology Advances* 6:vdae054, 2024. PMID: 38855054

Book chapters

1. Schook LB, **Gutmann DH**, Niederhuber JE. Characterization of bone marrow derived macrophages as Ia-bearing accessory cells. *Advances in Experimental Medicine and Biology* 149:429-433, 1982.
2. Schook LB, **Gutmann DH**, Marlin LE, Niederhuber JE. Expression of Ia antigens and Ir gene function during differentiation of bone marrow derived macrophages. In *Ir Genes: Past Present and Future* (Pierce CW, et al., Editors) Humana Press: New Jersey; pp. 91-101, 1983.
3. **Gutmann DH**, Allen PM, Niederhuber JE. Separation of immune response genes for LDH-B and MOPC-173: Implications for a new model of I-region gene organization. In *Ir Genes: Past Present and Future* (Pierce CW, et al., Editors) Humana Press: New Jersey; pg 91-95, 1983.
4. **Gutmann DH**, Fischbeck KH, Sladky JT. The congenital muscle diseases. In *Fetal and Neonatal Physiology* (Polin R and Fox W, Editors). WB Saunders: Philadelphia, pp 1675-1679, 1991.

5. **Gutmann DH**, Collins FS. von Recklinghausen neurofibromatosis. In *Metabolic Basis of Inherited Diseases*. (Scriver CR, Beaudet AL, Sly WS, Valle D, Editors). 7th edition. McGraw-Hill: New York. pp. 677-696, 1994.
6. **Gutmann DH**, Cole JL, Collins FS. Expression of the neurofibromatosis type 1 (NF1) gene during mouse embryonic development. *Progress in Brain Research* 105:327-335, 1995.
7. Riccardi VM, **Gutmann DH**. The clinical and molecular genetics of neurofibromatosis 1 and neurofibromatosis 2. In *The Molecular and Genetic Basis of Neurological Disease* (Rosenberg RN, Editor), 2nd edition, Chapter 40:693-712, 1997.
8. **Gutmann DH**, Pulst SM. The Phakomatoses. In: *Neurogenetics*. F.A. Davis. Chapter 9 1997.
9. **Gutmann DH**. Molecular biology of neurofibromatosis 1. In: *Neurofibromatosis type 1 in childhood*. (North K, Editor). MacKeith Press: London, pp. 5-15, 1997.
10. **Gutmann DH**, Collins FS. von Recklinghausen neurofibromatosis. In: *Metabolic Basis of Inherited Diseases*. (Scriver CR, Beaudet AL, Sly WS, Valle D, Editors). 7th Edition CD-ROM update. McGraw-Hill: New York, 1997.
11. **Gutmann DH**, Collins FS. Neurofibromatosis 1. In *"The Genetic Basis of Human Cancer"* (Vogelstein B and Kinzler KW, Editors). McGraw-Hill: New York. Pages 423-442, 1997.
12. Hsu CY, Lin TN, **Gutmann DH**. Molecular biology and genetics in neurological disorders. In: *Textbook of Neurology*. (Marc Fisher and Julien Bogousslavsky, Editors). Butterworth-Heinemann, pp. 127-133, 1998.
13. **Gutmann DH**. Neurofibromatosis 1: progress and future directions. In: *Neurofibromatosis Type 1: from Genotype to Phenotype*. Upadhyaya M. and Cooper DN (Editors) Bios Scientific: Oxford, pp. 215-224, 1998.
14. **Gutmann DH**. Parallels between tuberous sclerosis complex and neurofibromatosis 1. In: *Neurocutaneous Disorders: Seminars in Pediatric Neurology* (R.S. Kandt, Editor) 5:276-286, 1998.
15. **Gutmann DH**, Riccardi VM. Neurofibromatosis. In: *Prognosis of Neurological Disorders*, 2nd edition (RW Evans, DS Baskin, FM Yatsu, Editors). Chapter 31, 1999.
16. **Gutmann DH**, Gurney JG. Other malignancies. In: *Neurofibromatosis 3rd edition* (Friedman JM, et al. Editors). Johns Hopkins Press. Chapter 10, 1999.
17. **Gutmann DH**. Nervous system abnormalities. In: *Neurofibromatosis 3rd edition* (Friedman JM, et al. Editors). Johns Hopkins Press. Chapter 8, 1999.
18. Listerneck R, **Gutmann DH**. Optic pathway tumors. In: *Neurofibromatosis 3rd edition* (Friedman JM, et al. Editors). Johns Hopkins Press. Chapter 9, 1999.
19. Pulst S, **Gutmann DH**. Phakomatoses. In: *Neurogenetics: Contemporary Neurology Series*, Volume 57, Chapter 9, pp. 163-189, 1999.
20. MacCollin MM, **Gutmann DH**. Brain tumors associated with neurofibromatosis. In: *Brain Tumors: An Encyclopedic Approach* (Kaye and Laws, Editors), Churchill-Livingstone, London 2001.
21. Perry A, Leonard JR, Roth KA and **Gutmann DH**. Tumor Genetics. In: *Textbook of Neurological Surgery*. (Batjer and Loftus, Editors). Lippincott-Raven Publishers, Philadelphia 2002.
22. Colman H, **Gutmann DH**. Neurofibromatosis 1 and 2. In: *Current Therapy in Neurological Diseases*, Volume 6 (Johnson RT, Griffin JW, McArthur JC, Editors), pages 110-113, 2001.
23. Goldstein J, **Gutmann DH**. Neurofibromatosis 1. In: *Neurocutaneous Syndromes*, (Roach ES, Miller VS, Editors) Cambridge University Press; Cambridge. Pages 42-49, 2003.
24. **Gutmann DH**, Collins FS. von Recklinghausen neurofibromatosis. In: *Metabolic Basis of Inherited Diseases*. (Scriver CR, Beaudet AL, Sly WS, Valle D, Editors). 8th Edition. McGraw-Hill: New York. Pages 877-896, 2001.
25. Ess KC, **Gutmann DH**. Neurofibromatoses. In: *Manual of Neurological Practice*. (R. Evans, Editor). WB Saunders: Orlando. Pages 896-898, 2003.
26. Ess KC, **Gutmann DH**. Tuberous sclerosis complex and other neurocutaneous disorders. In: *Manual of Neurological Practice*. (R. Evans, Editor). WB Saunders: Orlando. Pages 899-902, 2003.
27. Lynch TM, **Gutmann DH**. Neurofibromatosis 1. In: *Neurologic Clinics of North America*. 20:841-865, 2002.
28. McCullough LA, **Gutmann DH**. GTPase activating proteins: Neurofibromatosis 1. In: *Molecular Basis of Inborn Errors of Development*. Oxford University Press: San Francisco 2003.
29. Gurnett CA, **Gutmann DH**. Neuro-oncology: The Neurofibromatoses. In: *The Molecular and Genetic Basis of Neurological and Psychiatric Disease*. 3rd Edition (Rosenberg RN, et al., Editors). Butterworth & Heinemann: MA. Pages 389-398, 2003.
30. Esper GJ, **Gutmann DH**. Neurofibromatosis 1 and 2. In: *Principles of Molecular Medicine*. 2nd edition. (S. Strittmatter, et al., Editors) Humana Press: NJ, 2004.

31. **Gutmann DH**, Perry A, Rangwala R, Sherman LS. Mouse models of Peripheral Nervous System Tumors. (E. Holland, Editor). In: *Mouse Models of Human Cancer*. John Wiley and Sons: New Jersey pp189-198, 2004.
32. **Gutmann DH**, Wetmore C, O'Neill BP. The Phakomatoses. In: *Principles of Neuro-Oncology* (D. Schiff, Editor) McGraw Hill: Philadelphia pp 233-256, 2005.
33. Malhotra A, **Gutmann DH**. Neurofibromatosis 1. In: *Neurogenetics: Scientific and Clinical Advances*. (D. Lynch, Editor). Marcel Dekker, Inc.: New York. 2005.
34. **Gutmann DH**, Perry A. Neurofibromatosis 1. In: *Russell & Rubinstein Pathology of Tumors of the Nervous System*, 7th Edition, Hodder Arnold Press: London, Pages 903-916, 2006.
35. Leeman B, **Gutmann DH**. Neurofibromatosis 1. In: *Current Pediatric Therapy*. 18th Edition. (Burg, Ingelfinger, Polin, and Gershon, Editors). Elsevier Press: Philadelphia, Pages 396-399, 2006.
36. Piersall L, **Gutmann DH**. Neurofibromatosis 1. In: *Neurobiology of Disease* (S. Gilman, Editor) Elsevier: New York Pages 413-424, 2006.
37. Dagniakatte GC, **Gutmann DH**. NF1 and Neurofibromatosis 1. In: *Inborn Errors of Development: The Molecular Basis of Clinical Disorders of Morphogenesis*. Oxford University Press: San Francisco. 3rd edition. Pages 614-619, 2008.
38. Bogitch R, **Gutmann DH**. Neuro-oncology: The Neurofibromatoses. In: *The Molecular and Genetic Basis of Neurological and Psychiatric Disease*. 4th Edition (Rosenberg RN, et al., Editors). Butterworth & Heinemann: MA. Pages 393-403, 2008.
39. **Gutmann DH**. Using neurofibromatosis type 1 mouse models to understand human pediatric low-grade gliomas. In: *CNS Cancer: Models, Prognostic Factors, Targets and Therapeutic Approaches*. (E. Van Meir, editors). Springer Press: New York. Pages 45-60, 2009.
40. Zeng L-H, **Gutmann DH**, Wong M. Glial-mediated mechanisms of epileptogenesis in tuberous sclerosis. In: *Encyclopedia of Basic Epilepsy Research*. (PA Schwartzkroin, Editor). Elsevier: Oxford. 2009.
41. Listernick R, **Gutmann DH**. Neurofibromatosis. In: *Ocular Disease: Mechanisms and Management*. (LA Levin and DM Albert, Editors). Elsevier: Oxford 2010.
42. Gutmann RJ, **Gutmann DH**. Predisposition Syndromes: Neurofibromatosis 1, Neurofibromatosis 2, Tuberous Sclerosis Complex. In: *Principles and Practice of Neuro-Oncology*. (M Mehta et al., editors). Demos Publishing: New York 2010.
43. Jost S, **Gutmann DH**. Neurofibromatosis and Other Genetic Syndromes. In: *Handbook of Clinical Neurology, Neuro-Oncology* Volume 95. (Aminoff, Biller and Swaab, Editors). Elsevier: New York. 105:569-82, 2012.
44. Darken RS, **Gutmann DH**. Neurofibromatosis Type 1. In: *Molecular Oncology: Causes of Cancer and Targets for Treatment*. (Germann E, Sawyers C, Rauscher F III, editors). Cambridge University Press: New York. 2012.
45. Listernick R, **Gutmann DH**. Pediatric low-grade glioma: The role of neurofibromatosis-1 in guiding therapy. In *Pediatric Cancer*, Vol 2 (Hayat MA, editor), Springer: Secaucus NJ 2012.
46. Apicelli AJ, **Gutmann DH**. Glial tumors in Neurofibromatosis and Tuberous Sclerosis Complex. In: *Neuroglia* (Kettenmann J & Ranson BR, editors). 3rd Edition. Oxford University Press: Oxford. pages 772-84, 2012.
47. Solga A, **Gutmann DH**. NF1-associated optic glioma. In: *Neurofibromatosis Type 1: Molecular and Cellular Biology*. (Upadhyaya M & Cooper DN, editors). Springer-Verlag Press: New York. Pages 341-52, 2012.
48. Ferner RE, **Gutmann DH**. Neurofibromatosis 1 (NF1): Diagnosis and Management. In: *Handbook of Clinical Neurology*. (Parkinson M, editor). Elsevier Press: Cambridge 115:939-55, 2013.
49. Kaul A, Hussain I, **Gutmann DH**. Using genetically engineered mouse models to understand low-grade glioma development and growth in children. In: *Animal Models of Brain Tumors* (Murillo RM & Martinez A, editors). Humana Press: New York pages 203-16, 2013.
50. Hussain I, **Gutmann DH**. Familial CNS Tumor Syndromes: Neurofibromatosis Type 1. In: *Neurobiology of Disease*. (Johnston MV, Adams HP, Fatemi A, editors). 2nd Edition Oxford University Press, 2016.
51. Riordan H, **Gutmann DH**. Neurofibromatosis 1. In: *Inborn Errors of Development: The Molecular Basis of Clinical Disorders of Morphogenesis*. (Erickson RP, Wynshaw-Boris AJ, editors) 3rd Edition Oxford University Press, 2016.
52. Cimino PJ, **Gutmann DH**. Neurofibromatosis Type 1. In: *Handbook of Clinical Neurology*. 3rd Edition. (Geschwind DH, Paulson HL, Klein K, eds.) Part II. Elsevier Press: San Diego, 148: 799-811, 2018. PMID: 29478615
53. Gurnett CA, Grange DK, **Gutmann DH**, McDonald D, Dobbs MB. Genetics and Personalized Medicine in Pediatric Orthopedic Surgery. In: *Orthopedic Knowledge Update*. Elsevier Press: New York, 71-80, 2018.

54. Cole JJ, Ferner RE, **Gutmann DH**. Neurofibromatosis type 1 (NF1). In: *Molecular and Genetic Basis of Neurological and Psychiatric Disease*. 6th Edition (Rosenberg RN and Pascal JM, editors). Elsevier Press: Cambridge MA, 185-200, 2020.
55. Rodriguez FJ, Reuss DE, Fisher MJ, **Gutmann DH**. Neurofibromatosis type 1. In: *WHO Classification of Tumours. Central nervous system tumours*. Lyon (France): International Agency for Research on Cancer; 2021 (WHO classification of tumours series, 5th ed.; vol. 6).
56. Cole JJ, Ferner RE, **Gutmann DH**. Neurofibromatosis type 1 (NF1). In: *Molecular and Genetic Basis of Neurological and Psychiatric Disease*. 7th Edition (Rosenberg RN and Pascal JM, editors). Elsevier Press: Cambridge MA (in press).
57. Chatterjee J, Koleske J, **Gutmann DH**. Mouse models of neurofibromatosis type 1. In: *RASopathies*. (Rauen KA, editor). Springer-Nature Press: London pages 833-854, 2024.
58. Fisher MJ, **Gutmann DH**, Perry A, Reuss DE, Rodriguez FJ. Neurofibromatosis type 1. In: *WHO Classification of Tumours. Pediatric tumours*. Lyon (France): International Agency for Research on Cancer; 2022 (WHO classification of tumours series, 5th ed.; vol. 6).