

Curriculum Vitae and Bibliography

Name : Eric Charles Holland.
Date of Birth : 2/7/59
Place of Birth : New Orleans, LA
Nationality : USA
Office Address : Departments of Neurosurgery, Surgery, Neurology, and Cancer
Biology & Genetics
Memorial Sloan Kettering Cancer Center
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Education : Miami University, Oxford OH
1977-1981, **BS** - Chemistry,
University of Chicago, Chicago IL
1981-1985, **PhD** - Biochemistry and Molecular Biology
Stanford University, Stanford CA
1985-1990, **MD**

Postdoctoral Training:

1990-1991 Internship in Surgery, UCLA
1992-1995 Residency in Neurosurgery, UCLA
1986-1988 Post-Doc, HIV gene expression, Stanford University - Paul Berg's
laboratory
1995-1998 Post-Doc, Transgenic models for glioma, NIH - Harold Varmus'
laboratory

Board Certified in Neurological Surgery

Positions and Appointments:

1998-2000

MD Anderson Cancer Center

Primary Appointment:

Assistant Professor
Department of Neurosurgery
The University of Texas
M. D. Anderson Cancer Center
Houston, Texas

Joint Appointment:

Assistant Professor
Department of Molecular Genetics
The University of Texas
M. D. Anderson Cancer Center
Houston, Texas

Memorial Sloan Kettering Cancer Center
New York, N.Y.

Cornell University

Associate Attending/Member 2000 – 2006

Current

Primary Appointment

Attending Surgeon
Department of Neurosurgery
Memorial Hospital for Cancer and Allied
Diseases, New York, N.Y.

Joint Appointment

Department of Surgery
Memorial Hospital for Cancer and Allied
Diseases, New York, N.Y.

Joint Appointment

Department of Neurology
Memorial Hospital for Cancer and Allied
Diseases, New York, N.Y.

Joint Appointment

Member
Cancer Biology and Genetics Program
Sloan Kettering Institute for Cancer
Research, New York, NY

Affiliate Appointment

Professor
Program in Cell Biology and Genetics
Department of Neurosurgery
Cornell University, New York, N.Y.

Affiliate Appointment

Department of Neurosurgery
Cornell University
Cornell University, New York, N.Y.

Director of the Brain Tumor Center at Memorial Sloan Kettering Cancer Center

Vice Chairman for Translational Research, Department of Surgery

Emily Tow Jackson Chair in Oncology

Scientific Societies:

Society for Neuro-Oncology
American Association of Neurologic Surgeons
Congress of Neurological Surgeons
American Association for Cancer Research

Honors and Awards:

2004 – Farber Award
2002 - Seroussi Award
2001 – Bressler Scholars Award
2000 - American Brain Tumor Association Research Award
2000 - Peter A. Steck Memorial Award
2000 – 2003 - Searle Scholars Award
1995 – 1998 - Howard Hughes Medical Institute Post Doctoral Fellow

Named Lectureships:

Killan Lecture, Montreal Neurologic Institute, Montreal, March 2005
 Pudenz Lecture, Amer. Soc. Ped. Neurosurg , Maui February 2005
 Farber Lecture, Society for Neuro-oncology. Toronto, November 2004.
 Lebatt Lecture, University of Toronto, Toronto, January 2004
 Hoshino Lecture, UCSF, San Francisco Sept. 2003

Other Activities:

NIH GRANTS

2002 - 2004 PI, Brain tumor SPORE program, P20 CA97011
 2001 – 2004 PI, RO1 CA94842
 1999 – 2004 Co-PI, UO1 CA894314-1 (MMHCC)
 2002 - 2005 Co-PI, RO1 CA/NS96582-01 (Marilyn Resh, PI)
 2003 - 2008 PI, RO1 CA099489
 2003 – 2008 PI, RO1 CA100688
 2004 – 2009 Co-PI, RO1 CA102673 (Ron Blasberg, PI)
 2004-2009 Co-PI, UO1 CA04002 (Pier Paolo Pandolfi PI)
 2004-2009 Co-PI, UO1 CA04002 (Harold Varmus PI)
 2006-2011 PI, U54 CA126518-01

OTHER GRANTS (PEER REVIEWED)

2001 - 2003 PI, Tow Foundation grant
 2001 - 2003 PI, Bressler Scholars Foundation Grant
 2000 – 2003 PI, Searle Scholars Foundation Grant
 2001 – 2003 PI, F.M. Kirby Fdn Grant
 2001 PI, Seroussi Foundation Grant

COMMITTEE MEMBERSHIPS:

National and International

1999 - present National Cancer Institute Mouse Model for Human Cancer Consortium Steering Committee Member (MMHCC).
 2000 Co-chair of animal models committee of the Brain Tumor Process Review Group meeting (NCI)
 2002 Chair, Preclinical trials subcommittee, MMHCC
 2006-present National Cancer Institute Tumor Microenvironment Network Steering committee Member (TMEN)

Institutional

2001 Gene Therapy Committee, MSKCC
 2001 Pathology Chair Search Committee, MSKCC
 2003 Cancer Biology Curriculum Committee, MSKCC

INTERNATIONAL MEETINGS ORGANIZED

2000 NCI Preclinical trials Rockville MD
 2002 Workshop: Preclinical trials Jackson Labs Bar Harbor ME
 2002 Symposium: Preclinical trials Jackson Labs Bar Harbor ME

NIH PEER REVIEW

2002	PO1 site visit – St Jude Children’s Hospital
2002	Ad Hoc reviewer, Path C Study section
2002	PO1 site visit, U. Mass medical school
2002-2003	Ad Hoc reviewer, Subcommittee C
2002-2003	Member, CAMP Study Section
2003-	Member, Cancer Genetics Study Section
2005	Ad Hoc PO1 NF1 cluster review

ACADEMIC CONSULTANTSHIPS:

1. Ad Hoc reviewer, Dana Farber Harvard Cancer Center External Advisory Board
2007
2. Consultant to Steven Rosenfeld MD, University of Alabama, Birmingham for
Brain Tumor SPORE program development. 2002
3. Consultant to Jeffery Bruce MD, Columbia University, for Brain Tumor SPORE
program development. 2002
4. Consultant to Cliff Schold MD, UPMC Health System, Pittsburgh, PA for Brain
Tumor SPORE program development, July 2001
5. Consultant to Ian Pollock, MD, UPMC Health System, Pittsburgh, PA, for
Program Project Grant entitled “Novel strategies for brain tumor therapy”,
January 2000.
6. Consultant to Michael T. Lotze, MD, UPMC Health System, Pittsburgh, PA, for
Program Project Grant entitled “Cytokine gene therapy of Cancer”, June 1999.

EDITORIAL BOARDS

1. Neoplasia
2. Virology
3. Molecular Medicine
4. Molecular Cancer Research
5. International Journal of Cancer
6. Neuro-Oncology
7. Glia

FORMAL TEACHING:

Courses taught:

1. Lecturer, GSK graduate school, MSKCC 2006-2008
2. Lecturer, UAB Graduate Course in gliomas Birmingham Al, March 2004
3. Lecturer, topic Neurosurgical evaluation of patients, Cornell University
Medical School 2002-2005
4. Lecturer, Topic: Brian development and brain tumor formation, in Cell
Biology course. Cornell University Graduate School. May 2002
5. Lecturer, Topic: Oncogenes and tumor suppressors, In: Molecular Genetics
course. Cornell University Graduate School. November, 2001, 2002. 2004,
2005

6. Invited Speaker: Somatic cell gene transfer modeling of gliomas. Pancreatic Cancer Working Group, The University of Texas M. D. Anderson Cancer Center, Houston, TX, August 2000.
7. Lecturer, Topic Retroviruses II. Eukariotic gene expression course, University of Texas Houston Health Science Center GSBS, Houston, TX, April 2000.
8. Lecturer, Topic Retroviruses I. Eukariotic gene expression course, University of Texas Houston Health Science Center GSBS, Houston, TX, April 2000.
9. Chair: Advances in Oncology Institutional Grand Rounds, Modeling Cancer in Mice: The molecular and cellular origins of human gliomas. Lecture entitled Modeling gliomas in mice with RCAS/tv-a. April 2000
10. Lecturer, Genetics of Brain Tumors. Department of Neurosurgery Didactic Lecture Series, UTMDACC, Houston, TX, January 1999.
11. Seminar, Somatic cell gene transfer to model gliomas in mice. Information Exchange Seminar series, Department of Molecular Genetics, UTMDACC, Houston, TX, April, 1999.
12. Lecturer, Retroviruses II. University of Texas Houston Health Science Center GSBS, Houston, TX, April 1999.
13. Lecturer, Retroviruses I. University of Texas Houston Health Science Center GSBS, Houston, TX, April 1999.

SUPERVISORY TEACHING:

Advisory committees:

1. Member, Thesis committee, Claire Fraser, Rockefeller University PhD student, Bob Darnell Lab, 2004
2. Chair, ACE Committee, Claudio Alacron, Cornell Graduate School, 2003
3. Member, ACE Committee, Nicole Dragi, Cornell Graduate School, 2003
4. Chair, PhD Thesis Committee. Andrea Basso. Cornell Graduate School 2002.
5. Member, ACE Committee, Marianna Ruzinova, Cornell Graduate School. 2002
6. Chair, PhD Thesis Committee. Rebecca Wolf. Cornell Graduate School. 2002
7. Member, Thesis Advisory Committee Molecular Genetics, Gene Lang/Gigi Lozano, 1998G.S.B.S.
8. Member, Thesis Advisory Committee Molecular Genetics, Hui-Teng Cheng/Randy Johnson, 1998 G.S.B.S.
9. Member, Thesis Advisory Committee Molecular Genetics, Carolyn Pressman/Randy Johnson, 1999, G.S.B.S.
10. Member, Thesis Advisory Committee Pathology, Hua Li, 2000, G.S.B.S.

Students directly supervised:

1999 – 2003	Chengkai Dai, Ph.D, U. Texas (now post-doc@MIT)
1999 – 2003	Meena Tanwar, Ph.D. Student, U. Texas (now post-doc@U. Mass)
2000 – 2004	Xiaoyi Hu, Ph.D. student, Cornell University (Now post-doc@Emory)
2001 – 2005	Alan Shih, MD PhD student, Cornell University
2003 – present	Yelena Lyustikman, PhD student, Cornell University
2004 – present	Elena Fomchencko, PhD student, Cornell University
2005 – present	Nikki Charles, PhD student, Cornell University
2006 – present	Amanda Katz, PhD student, Cornell University

2007 – present Daniel Halperin, HHMI medical student Cornell University

Thesis Opponent/External Reviewer

2003 Goran Hesslager, MD, PhD, Uppsala University, Sweden
2004 Stephanie Backman, PhD, University of Toronto, Canada
2005 Marcela Assanah, PhD, Columbia University
2006 Clair Fraizer, PhD, Rockefeller University

Postgraduates directly supervised:

1999 Daniel Fults, MD, Professor of Neurosurgery, U. of Utah (sabbatical).
2000 – 2003 V. K. Rajasekhar PhD, visiting scientist (now @MSKCC)
2001 – 2003 Lene Uhrbom PhD, Post-doc, (now @ Uppsala University, Sweden)
2001 – 2003 Martin Begemann, MD Neurology Fellow (now @ Max Plank)
2002 – 2005 Andrew Lassman, MD (now @MSKCC Neurology Dept.)
2004 – 2005 Pierre Francois Carton PhD, post-doc (now @ INSERM Nantes, France)
2004 – 2007 Hiroyuki Momota, MD PhD Neurosurgery Fellow/post doc (now @ National Cancer Center, Tokyo Japan)
2004 – present Oren Becher, MD Pediatric Oncology Fellow
2005 - present Fabienne Bernet, PhD, Post-doctoral fellow
2005 – present Dolores Hambarzumyan, PhD, Post-doctoral fellow
2006 – present Anna-Marie Bleau. PhD Post-doctoral fellow.
2006 - present Jason Huse, MD PhD Neuropathology fellow/Post-doctoral fellow
2006 – present Massimo Squartrito, PhD Post-doctoral fellow
2006 – present Tatsuya Ozawaya, MD PhD Neurosurgery Fellow/Post-doctoral fellow
2007 – present Nduka Amankolor, MD, Neurosurgery resident (Yale University)
2008 – present Rebecca Bish, PhD, Post-doctoral Fellow

Clinical Fellows:

1998-present Supervised surgical training of neurosurgery fellows at MD Anderson and MSKCC

Neurosurgery residents:

1998-2000 Participated in the neurosurgical training and supervision of Baylor and UTMB neurosurgery residents.
2001-present Participated in neurosurgical training and supervision of Cornell neurosurgery residents.

INVITATIONS TO SPEAK AT NATIONAL OR INTERNATIONAL CONFERENCES

(Since 1998):

1. PTEN Meeting, Lansdown VA March 2008
2. NCI Metastasis Workshop Bethesda MD January 2008
3. CUHK, Hong Kong, January 2008
4. SNO, Dallas TX November 2007
5. Preuss Foundation, La Jolla CA, November 2007
6. Heidelberg Germany, October 2007
7. JAX Mouse Course, Bar Harbor, ME, August 2007

8. European Society for Molecular Imaging, Naples, Italy June 2007
9. NIH Stem Cell meeting, Bethesda, May 2007
10. Chicago Northwestern Brain Tumor Conference, Chicago May 2007
11. AACR, Orlando FL, April 2007
12. Spinal Cord Tumor Meeting, Bethesda February 2007
13. TMEN NIH meeting Bethesda MD January 2007
14. AACR, Los Angeles CA, April 2007
15. Society for Neurooncology, Orlando FL November 2006
16. Meeting on Cancer, DKFZ, Heidelberg, Germany September 2006
17. Society for Molecular Imaging, Kona Hawaii August 2006
18. Jackson Labs Mouse Course, Bar Harbor, ME August 2006
19. Brain tumor summit, Cleveland Clinic May 2006
20. PTEN meeting, Madrid Spain May 2006
21. Stem Cell Meeting Lund University Sweden April 2006
22. PTEN meeting, Cold Spring Harbor March 2006
23. Brain Tumors and Stem Cells, MGH Boston MA, November 2005.
24. NF meeting, Bambury Cold Spring Harbor, NY November 2005.
25. EMBL Mouse Meeting, Heidelberg, Germany, October 2005
26. Neural Stem Cells and Brain Cancer, Rome, Italy, September 2005.
27. Jackson Labs Mouse Course, Bar Harbor, ME August 2005
28. EMBL-Salk Oncogene meeting, La Jolla CA August 2005
29. Gordon Conference-Cancer, Bryant U. RI July 2005
30. AACR workshop, Aspen CO. July 2005
31. MMHCC CNS tumor meeting St. Louis MO, June 2005
32. NSA, Orlando FL June 2005
33. ASNR, Toronto Canada May 2005
34. WFNO, Edinburgh Scotland May 2005
35. AACR, Anaheim CA April 2005 (4 talks)
36. OSU Brain Tumor Conference Columbus, OH March 2005
37. ASPN, Pudenz Lecture, Maui February 2005
38. Max Delbruck Center, Berlin Germany, December 2004.
39. Society for Neuro-oncology. Farber Lecture Toronto, November 2004.
40. Congress of Neurological Surgeons, San Francisco. October 2004
41. Society of Molecular Imaging, St. Louis Sept 2004
42. Jackson Laboratories, Mol Genet of the Mouse, Bar Harbor ME. August 2004
43. Cold Spring Harbor Oncogene Meeting. August 2004
44. AACR Molecular Biology Course, Aspen CO July 2004
45. SPORE annual meeting Baltimore MD July 2004
46. MMHCC Meeting Washington DC. July 2004
47. Annual Neuropathology Meeting, Cleveland, 2004
48. Molecular Imaging Meeting, University of Michigan, Ann Arbor, June 2004
49. Juan March Meeting, Madrid Spain, May 2004
50. Myelin Gordon Conference, Barga Italy, May 2004
51. Second annual Brain Tumor Course, Houston TX, May 2004
52. Joint Brain Tumors Funders meeting, Boston MA, April 2004
53. EIO-IFOM Annual Meeting, Milan, Italy March 2004

54. AACR mouse models meeting Keystone CO, February 2004
55. Prostate think tank meeting, Washington DC. February 2004
56. NABIT national meeting, Atlanta GA. November 2003
57. University of Vermont Cancer Center, Burlington VT. October 2003
58. UCSD/Salk Inst, Mahajani Symposium, San Diego September. 2003
59. Jackson Laboratories, Mol Genet of the Mouse, Bar Harbor ME Aug 2003
60. Cleveland Clinic, Cleveland OH, July 2003
61. SPORE/MMHCC meeting, Baltimore, MD July 2003
62. AACR Molecular Biology Course, Aspen CO June 2003
63. ASCO, Chicago IL. (2 talks) June 2003
64. International Brain Tumor Pathology Conference, Tokyo, Japan, May 2003
65. AACR Mouse Modeling Meeting, Orlando, FL. February 2003
66. Brain tumor course, MD Anderson. Conroe TX February 2003
67. ABC2 biomarkers meeting San Francisco, CA, January 2003
68. Brain tumor SPORE meeting, San Francisco, CA, January 2003
69. ASTS annual meeting Miami FL, January 2003
70. Seroussi Awards, Tel Aviv University, Tel Aviv Israel. December 2002
71. Society for Neuro-Oncology-MMHCC, San Diego, CA, November 2002
72. Moderator/speaker, Modeling session of SNO, San Diego, CA, November 2002
73. Preclinical trials meeting of MMHCC, JAX labs, Bar Harbor, ME, October 2002
74. ABC2 annual meeting, Half Moon Bay, CA July 2002
75. Mouse Model of Human Cancers Consortium MMHCC, Boston, MA, July 2002
76. AACR sunrise session, San Francisco, CA, April 2002
77. Neurofibromatosis Preclinical trials meeting, Washington DC, January 2002
78. NIH Working Group on Tumor Metastasis Washington DC, November 2001.
79. Society for Neurooncology annual meeting. Washington, DC, November 2001
80. Symposium on Cancer Biology. Roswell Park November 2001
81. Gordon Conference on Cancer Biology, Newport, RI, July 2001
82. Cleveland Clinic Special Symposium. Cleveland, OH. June 2001
83. National Neurofibromatosis Foundation annual meeting, Aspen, CO. May 2001.
84. MD Anderson Special Symposium. Houston, TX, January 2001
85. Society for Neurooncology meeting, Chicago, IL. November 2000
86. Organizer and Speaker, MMHCC preclinical trials meeting, Rockville, Sept. 2000
87. Co-Chairman: Brain Tumor Progress Review Group (PRG), VA, July 2000.
88. Mouse Model of Human Cancers Consortium MMHCC, Chantilly VA, July 2000.
89. Southwest Oncology Group Spring Meeting, Seattle, WA, April 2000.
90. TVA Meeting, University of Pennsylvania, Philadelphia, PA, April 2000.
91. International Life Sciences Institute (ILSI) St. Petersburg, FL, January 2000.
92. Symposium in honor of Harold E. Varmus, Cold Springs Harbor, NY, Dec. 1999.
93. Moderator, Model Systems for Tumors. SNO, Scottsdale, AZ, November 1999.
94. SNO, Scottsdale, AZ, November 1999.
95. TVA Annual Meeting NIH, Bethesda, MD January 1999.
96. SNO, San Francisco, CA, November 1998.
97. Society of Toxicologic Pathologists, Washington, DC, June 1999.
98. Society for Neuro-oncology. SNO, Charlottesville, VA, October 1998.
99. Howard Hughes Medical Institute, Chevy Chase, MD, September 1998.

100. AACR, New Orleans, LA, April 1998.

INSTITUTIONAL SEMINAR INVITATIONS/VISITING PROFESSORSHIPS (Since 1998):

1. UCLA, Los Angeles, CA April 2008
2. UCSF San Francisco, CA, March 2008
3. Boston Children's, Boston MA February 2008
4. University of Utah, Salt Lake City, December 2007
5. University of Michigan, October 2007
6. NIH Fredrick, MD September 2007
7. Merck, Boston MA, February 2007
8. MD Anderson, Houston TX December 2006
9. New York University, New York, November 2006
10. Washington University, St. Louis, October 2006
11. University of Alabama, Birmingham AL, October 2006
12. Cornell University, New York, October 2006
13. Scripps Research Institute, La Jolla CA May 2006
14. University of Cincinnati, Cincinnati, OH November 2005
15. NYU, New York, October 2005
16. Columbia University New York, October 2005
17. Emory University, Atlanta AL May 2005
18. University of Florida, Gainesville FL March 2005 (2 talks)
19. Montefiore Medical Center, Bronx NY March 2005
20. Montreal Neurologic Institute, Killan Lecture, Montreal, March 2005
21. Genetech, South San Francisco, CA January 2005
22. MGH East, Boston, January 2005
23. Case Western University, Cleveland, December 2004
24. Cornell University New York, September, 2004
25. Rockefeller University, New York, September 2004
26. University of Dusseldorf, Dusseldorf Germany, September 2004
27. University of Toronto, Toronto Canada. August 2004
28. New York University, New York City, June 2004
29. University of Basel/FMI/Novartis, Basel, Switzerland, April 2004
30. University of Paris, France, March 2004
31. University of Alabama Birmingham Al, March 2004
32. Einstein Medical Center Bronx NY March 2004
33. University of Toronto, Lebatt Lecture, Toronto, Canada, January 2004
34. Hospital for Sick Children, Labatt Annual Lecture, Toronto January, 2004
35. Harvard Beth Israel, Boston MA, November 2003
36. UCSF 7th Hoshino Lecture, San Francisco Sept. 2003
37. Genetech South San Francisco Sept. 2003
38. Univ. Calgary, Calgary Canada Sept. 2003
39. Erasmus University, Rotterdam Netherlands, June 2003
40. Karolinska, Stockholm Sweden May 2003
41. Uppsala University, Uppsala Sweden, May 2003
42. Cold Spring Harbor, January 2003

43. University of Virginia, January 2003
44. MD Anderson, Houston TX December 2002
45. Novartis, Summit NJ, December 2002
46. Surgery Grand Rounds, MSKCC November 2002
47. Medicine Grand Rounds, MSKCC October 2002
48. Columbia University, October 2002
49. Aton Pharmaceuticals, Tarrytown NY Sept. 2002
50. Millennium Pharmaceuticals, South San Francisco CA July 2002
51. Uppsala University, Sweden, June 2002
52. Harvard Medical School, May 2002
53. University of Michigan, May 2002
54. University of Illinois, March 2002
55. Washington University, February 2002
56. Duke University, January 2002
57. Rockefeller University, January 2002
58. Columbia University, January 2002
59. Cornell University. December 2001.
60. Massachusetts General Hospital, December 2001.
61. Novartis, December 2001
62. Columbia University, September 2001.
63. Genentech, South San Francisco, CA, Aug. 2001.
64. Van Andle Research Institute, Grand Rapids MI. May 2000
65. UMDNJ-Robert Wood Johnson Medical School, May 2000.
66. Thomas Jefferson University, Philadelphia PA, May 2000.
67. Baylor College of Medicine, Houston, Texas, April 2000.
68. Neurosurgery Grand Rounds. Mayo Clinic, February 2000.
69. Tumor Biology Program: Mayo Graduate School, February 2000.
70. St Jude Children's Research Hospital, Memphis, TN, December 1999.
71. University of North Carolina, Chapel Hill, NC, November 1998.
72. National Institutes of Health. Bethesda, March 1998.
73. Georgetown University, February 1998.

Languages: English

Publications:

1. Smith D, King J, **Holland EC**. Phosphonoacetic acid: Effects on and distribution in Tetrahymena. *J. Protozool* 29:150 – 107, 1982.
2. **Holland EC**, Leung J, Drickamer K. Rat liver asialoglycoprotein receptor lacks a cleavable NH₂-signal sequence. *Proc Nat Acad Sci* 81:7338 - 7342, 1984.
3. Leung J, **Holland EC**, Drickamer K. Characterization of the gene encoding the major rat liver asialoglycoprotein receptor. *J Biol Chem* 260:12523 - 12527, 1985.
4. Hseuh E, **Holland EC**, Carrera J, Drickamer K. The rat liver asialoglycoprotein receptor polypeptide must be inserted into a microsome to achieve active conformation. *J Biol Chem* 261:4940 - 4947, 1986.

5. **Holland EC**, Drickamer K. Signal recognition particle mediates the insertion of a transmembrane protein which has a cytoplasmic NH₂-terminus. *J Biol Chem* 261:1286 - 1292, 1986.
6. Halberg D, Wagner R, Farrell D, Hildreth J, Quensenberry M, Loeb J, **Holland EC**, Drickamer K. Major and minor forms of the rat liver asialoglycoprotein receptor are independent galactose-binding proteins. *J Biol Chem* 262:9828 - 9838, 1987.
7. Feng S, **Holland EC**. HIV-1 tat transactivation requires the loop sequence within tar. *Nature*. 334:195 - 167, 1988.
8. **Holland EC**, Varmus H. Basic fibroblast growth factor induces cell migration and proliferation after glia-specific gene transfer in mice. *Proc Natl Acad Sci USA* 95:1218 – 1223, 1998.
9. **Holland EC**, Hively W, Gallo V, Varmus H. Modeling mutations in the G1 arrest pathway in human gliomas: overexpression of *CDK4* but not loss of *INK4a-ARF* induces hyperploidy in cultured mouse astrocytes. *Genes Dev*, 12:3644-3649, 1998.
10. **Holland EC**, Hively W, DePinho R, Varmus H. A constitutively active epidermal growth factor receptor cooperates with disruption of G1 cell-cycle arrest pathways to induce glioma-like lesions in mice. *Genes Dev*, 12:3675-3685, 1998.
11. Fisher GH, Orsulic S, **Holland EC**, Hively WP, LI Y, Lewis BC, Williams BO, Varmus HE. Development of a flexible and specific gene delivery system for production of murine tumor models. *Oncogene* 38: 5253-5260, 1999.
12. **Holland, EC**. A mouse model for glioma: biology, pathology, and therapeutic opportunities. *Toxicol Pathol*, 28:171-177, 2000.
13. **Holland EC**, Celestino J, Dai C, Schaefer L, Sawaya RE, Fuller GN. Combined activation of Ras and Akt in neural progenitors induces glioblastoma formation in mice. *Nat Genet* 25:55-57, 2000.
14. **Holland, EC**. Glioblastoma Multiforme: The Terminator. *Proc Natl Acad Sci USA*, 97:6242-6244, 2000.
15. **Holland EC**, Li Yi, Celestino J, Dai C, Schaefer L, Sawaya R, Fuller GN. Astrocytes give rise to oligodendrogliomas and astrocytomas after gene transfer of polyoma virus middle T antigen *in vivo*. *Am J Pathol*. 157:1031-7 2000.
16. Caskey LS, Fuller GN, Bruner JM, Yung WK, Sawaya RE, **Holland EC**, Zhang W. Toward a molecular classification of the gliomas: histopathology, molecular genetics, and gene expression profiling. *Histol Histopathol*. 15:971-81 2000.
17. Laywell ED, Rakic P, Kukekov VG, **Holland EC**, Steindler DA. Identification of a multipotent astrocytic stem cell in the immature and adult mouse brain. *Proc Natl Acad Sci U S A*. 97:13883-8, 2000.
18. **Holland EC** Gliomagenesis: genetic alterations and mouse models. *Nat Rev Genet* 2(2):120-9, 2001.
19. **Holland EC**. Brain tumor animal models: importance and progress. *Curr Opin Oncol*. 13:143-147 2001.
20. **Holland EC**. Animal models of cell cycle dysregulation and the pathogenesis of gliomas. *J Neurooncol* 51:265-276. 2001.
21. Louis DN, **Holland, EC**, Cairncross JG. Glioma Classification: a molecular reappraisal. *Am. J. Pathol.*, 9:779-86, 2001.

22. Uhrbom L, **Holland EC**. Modeling gliomagenesis with somatic cell gene transfer using retroviral vectors. *J Neurooncol.* 2001 Jul;53(3):297-305..
23. Dai C, **Holland EC**. Glioma models. *BBA Reviews Online* 8;31:1551(1)M19-27, 2001.
24. Dai C, Celestino J, Okada Y, Louis DN, Fuller GN, **Holland EC**. PDGF autocrine stimulation dedifferentiates cultured astrocytes and induces oligodendrogliomas and oligoastrocytomas from neural progenitors and astrocytes in vivo. *Genes Dev* 15:1913-1925. 2001.
25. Lacroix M, Abi-Said D, Fourney DR, Gokaslan ZL, Shi W, DeMonte F, Lang FF, McCutcheon IE, Hassenbusch SJ, **Holland EC**, Hess K, Michael C, Miller D, Sawaya R: A multivariate analysis of 416 patients with glioblastoma multiforme: prognosis, extent of resection, and survival. *J Neurosurgery* 95: 190-198 2001.
26. **Holland EC**. Progenitor cells and glioma formation. *Curr Opin Neurol.* 2001 Dec;14(6):683-8.
27. Lang FF, Olansen NE, DeMonte F, Gokaslan ZL, **Holland EC**, Kalhorn C, Sawaya R. Surgical resection of intrinsic insular tumors: complication avoidance. *J Neurosurg.* 2001 Oct;95(4):638-50.
28. Begemann M, Fuller GN, **Holland EC**. Genetic modeling of glioma formation in mice. *Brain Pathol.* 2002 Jan;12(1):117-32.
29. Fults D, Pedone C, Dai C, **Holland EC**. MYC expression promotes the proliferation of Neural progenitors cells in culture and in vivo. *Neoplasia.* 2002 4: 32-39.
30. Van Rompaey L, **Holland EC**, Grosveld G. TEL Induces Aggregation in Transformed Cells and Induces Tube Formation in NIH3T3-UCLA Cells. *Biochem Biophys Res Commun.* 2002 Mar 8;291(4):820-8.
31. De Miguel MP, Cheng L, **Holland EC**, Federspiel MJ, Donovan PJ. Dissection of the c-Kit signaling pathway in mouse primordial germ cells by retroviral-mediated gene transfer. *Proc Natl Acad Sci U S A.* 2002 Jul 24
32. Tanwar MK, Gilbert MR, **Holland EC**. Gene Expression Microarray Analysis Reveals YKL-40 to Be a Potential Serum Marker for Malignant Character in Human Glioma. *Cancer Res.* 2002 Aug 1;62(15):4364-4368.
33. Koutcher JA, Hu X, Gede T, Leeds N, Zhao J, Zagzag D, **Holland EC**. MR imaging of mouse models for gliomas show similarities to humans and can be used to identify mice for preclinical trials. *Neoplasia* 2002 Nov;4(6):480-485.
34. Uhrbom L, Dai C, Celestino JC, Rosenblum MK, Fuller GN, **Holland EC**. *Ink4a-Arf* loss cooperates with KRas activation in astrocytes and neural progenitors to generate glioblastomas of various morphologies depending on amount of Akt activity. *Cancer Res.* 2002 Oct 1;62(19):5551-5558.
35. Weiss WA, Israel M, Cobbs C, **Holland EC**, James CD, Louis DN, Marks C, McClatchey A, Roberts T, Van Dyke T, Wetmore C, Chiu I, Giovannini M, Guha A, Higgins R, Marino S, Radovanovic I, Reilly K, Aldape K. Neuropathology of genetically engineered mice: consensus report and recommendations from an international forum. *Oncogene* 2002 Oct 24;21(49):7453-63.
36. Xu S, Gade TP, Matei C, Zakian K, Alfieri AA, Hu X, **Holland EC**, Soghomonian S, Tjuvajev J, Ballon D, Koutcher JA. In vivo multiple-mouse imaging at 1.5 T. *Magn Reson Med.* 2003 551-557.

37. Wolf RM, Draghi N, Liang X, Dai C, Uhrbom L, Eklof C, Westermarck B, **Holland EC**, Resh MD. p190RhoGAP can act to inhibit PDGF-induced gliomas in mice: a putative tumor suppressor encoded on human Chromosome 19q13.3. *Genes Dev.* 2003 476-87.
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