#### **CURRICULUM VITAE**

NAME: MICHAEL A. DYER

**DATE & PLACE OF BIRTH:** June 5, 1968

San Diego, California

**OFFICE ADDRESS:** Department of Developmental Neurobiology

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Memphis, Tennessee

#### **ACADEMIC DEGREES:**

B.S. 1990 University of California at Los Angeles (UCLA), Los Angeles, California

(Microbiology and Molecular Genetics)

Ph.D. 1997 Harvard University, Cambridge, Massachusetts (Molecular and Cellular

Biology)

### PROFESSIONAL APPOINTMENTS:

1987 1990-1991	Honors Immunology Laboratory Rotation, UCLA Medical Center, Los Angeles, California Research Assistant, Department of Microbiology and Molecular Genetics, UCLA, Los Angeles, California
1991-1997	Graduate Student, Harvard University, Cambridge, Massachusetts
1992-1994	Teaching Assistant, Rindge and Latin Public High School, Cambridge, Massachusetts
1993-1994	Senior Teaching Fellow, Harvard University, Cambridge, Massachusetts
1994-1996	Senior Teaching Consultant, Derek Bok Center for Teaching, Harvard University, Cambridge, Massachusetts
1997-2002	Postdoctoral Research Fellow, Department of Genetics, Harvard Medical School, Cambridge, Massachusetts
1998	Guest Lecturer, Mount Sinai School of Medicine, New York City, New York
2000	Visiting Professor, Nelson Mandela Medical School, Durban, South Africa
2002-2005	Assistant Member, Department of Developmental Neurobiology, St. Jude Children's Research Hospital, Memphis, Tennessee
2003-2006	Journal of Clinical Pathology/Journal of Molecular Pathology Editorial Board
2005-2009	Associate Member, Department of Development Neurobiology, St. Jude Children's Research Hospital, Memphis, Tennessee
2006-2011	Associate Editor, Brain Research
2003-2007	Assistant Professor, Department of Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, Tennessee
2003–2007	Assistant Professor, Department of Ophthalmology, University of Tennessee Health Science Center College of Medicine, Memphis, Tennessee
2007-2010	Associate Professor, Department of Ophthalmology, University of Tennessee Health Science Center College of Medicine, Memphis, Tennessee

2007-2010	Associate Professor, Department of Anatomy and Neurobiology, University of
	Tennessee Health Science Center, Memphis, Tennessee
2009-Present	Member, Department of Development Neurobiology, St. Jude Children's Research
	Hospital, Memphis, Tennessee
2009-2011	Brain Research Editorial Board
2009-2010	Stem Cell Editorial Board
2009-2012	PK Shared Resource Task Force Chair
2009-2013	Howard Hughes Medical Institute Early Career Scientist
2009	Visual Systems Guest Editor - September Special Issue
2010	Developmental Dynamics Editorial Board
2010	Experimental Eye Research Executive Editor
2010	Oncotarget Editorial Board
2010-present	Professor, Department of Ophthalmology, University of Tennessee Health Science
	Center College of Medicine, Memphis, Tennessee
2010-present	Professor, Department of Anatomy and Neurobiology, University of Tennessee Health
•	Science Center, Memphis, Tennessee
2013-present	HHMI Investigator
2013-2016	Molecular and Cellular Biology Editorial Board
2013-2017	NCI Pediatric and Adolescent Solid Tumor Steering Committee

# PROFESSIONAL SOCIETY MEMBERSHIPS:

2000-present	Member, Sigma Xi Scientific Research Society
2002-present	Member, Association for Research in Vision and Ophthalmology (ARVO)
2002-present	Member, American Association for Cancer Research

# **HONORS AND AWARDS**:

1988-1990	President's Undergraduate Fellowship, University of California at Los Angeles
1993-1994	Certificate of Distinction for Undergraduate Teaching, Harvard University, Derek Bok
	Center for Teaching and Learning
1994	Mack Davis II Award for Community Service
1994-1995	Merit Fellowship, Harvard University, Graduate School of Arts and Sciences
1997-2000	National Research Service Award, National Eye Institute, NIH
2000	Mary Weston Trust Visiting Professorship, Nelson Mandela Medical School, Durban,
	South Africa
2002-2004	Charles H. Revson Fellowship in Biomedical Sciences
2004-2008	Research to Prevent Blindness Career Development Award
2004-2008	Pew Scholar in Biomedical Sciences
2008	ARVO Cogan Award Recipient
2008-2012	Research to Prevent Blindness Lew R. Wasserman Merit Award
2009-present	t Leader of Cancer Center Program in Developmental Biology and Solid Tumors
2009	St. Jude Mentoring Award Recipient
2009	Howard Hughes Medical Institute (HHMI) 2009 Early Career Scientist Award
2013	Howard Hughes Medical Institute (HHMI) 2013 Investigator

#### **RESEARCH INTERESTS:**

My laboratory is interested in understanding how neural progenitor cells coordinate their proliferation with cell fate specification during development. The precise coordination of these two processes is not only important for regulating tissue size, but it is also critical for generating the correct proportion of each neural cell type during development. When proliferation and developmental programs become uncoupled, neural function is compromised, and degeneration, dysplasia or cancer can result. Additional evidence of the importance of coordinating proliferation and developmental programs has come from recent studies in which compensatory mechanisms in progenitor cells have been identified. These mechanisms prevent developmental catastrophes that could result from deregulated proliferation during development. It has even been proposed that well-orchestrated changes in the regulation of proliferation during CNS development may be one mechanism for generating diversity across species during evolution. More recently, we have extended these studies and applied them to other developing tissues that are relevant to pediatric solid tumors including bone, muscle and neural crest derived lineages.

## **GRANT SUPPORT:**

## ONGOING

1 R01CA168875-01	Molecular Targeted Therapy for Retinoblastoma
PI: Dyer	
Macula Vision Research Foundation	Production of Cone Photoreceptors from iPSCs
PI: Dyer	
2R01EY014867	Cell Type-Specific Roles of RB in Retinal Differentiation
PI: Dyer	
1 R01EY023619	Epigenetic Reprogramming of Retinal Neurons
PI: Dyer	
Alex Lemonade Stand Foundation	Novel Targeted Therapies for Rhabdomyosarcoma
PI: Dyer	
HHMI Investigator	Development, Degeneration and Cancer
PI: Dyer	

### **PUBLICATIONS:**

# **Original Articles**

- 1. Trepicchio WL, **Dyer MA**, Baron MH. Developmental regulation of the human embryonic beta-like globin gene is mediated by synergistic interactions among multiple tissue-and stage-specific elements. Mol Cell Biol 13:7457-7468, 1993.
- 2. Trepicchio WL, **Dyer MA**, Hardison R, Baron MH. Upstream regulatory region of the human embryonic beta-like globin gene, epsilon. DNA Sequence 4:409-412, 1994.
- 3. Trepicchio WL, **Dyer MA**, Baron MH. A novel conserved developmental regulatory sequence motif required for stage-specific epsilon-globin gene activation and nuclear factor binding in embryonic erythroid cells. Mol Cell Biol 14:3763-3771, 1994.
- 4. **Dyer MA**, Trepicchio WL, Belaoussoff MH, Farrington SM, Baron MH. Molecular mechanisms of embryonic beta-like globin gene regulation during mammalian development. Hemoglobin Switching, Volume 1. Intercept Ltd., pp135-151, 1995.
- 5. **Dyer MA**, Naidoo RN, Larson CJ, Verdine GI, Hayes P, Baron MH. A DNA-bending protein interacts with an essential upstream regulatory element of the human embryonic beta-like globin gene. Mol Cell Biol 16:829-838, 1996.
- 6. Matsunaga J, **Dyer M**, Simons EL, Simons RW. Expression and regulation of the rnc and pdxJ operons of Escherichia coli. Mol Microbiol 22:977-989, 1996.

- 7. **Dyer MA**, Hayes P, Baron MH. The HMG domain protein SSRP1/PREIIBF is involved in activation of the human embryonic beta-like globin gene. Mol Cell Biol 18:2617-2628, 1998.
- 8. **Dyer MA**, Cepko C. P57<sup>Kip2</sup> regulates progenitor cell proliferation and amacrine interneuron development in the mouse retina. Development 127:3593-3605, 2000.
- 9. **Dyer MA**, Cepko C. Control of Müller glial cell proliferation and activation following retinal injury. Nat Neurosci 39:873-880, 2000.
- 10. **Dyer MA**, Cepko C. The p57<sup>Kip1</sup> cyclin kinase inhibitor is expressed by a restricted set of amacrine cells in the rodent retina. J Comp Neurol 429:601-614, 2001.
- 11. **Dyer MA**, Farrington SM, Mohn D, Munday JR, Baron MH. Indian hedge hog activates hematopoiesis and vasculogenesis and can respecify prospective neurectodermal cell fate. Development 128:1717-1730, 2001.
- 12. **Dyer MA**, Cepko C. Regulating proliferation during retinal development. Nat Rev Neurosci 2:333-342, 2001
- 13. **Dyer MA**, Cepko C. p27<sup>Kip1</sup> and p57<sup>Kip2</sup> regulate proliferation in distinct retinal progenitor cell populations. J Neurosci 21:4259-4271, 2001.
- 14. Zhu CC, **Dyer MA**, Uchikawa M, Kondoh H, Lagutin OV, Oliver G. Six3 mediated auto-repression and eye development requires its interaction with members of the Groucho-related family of co-repressors. Development 129:2835-2849, 2002.
- 15. Akey DT, Zhu X, **Dyer M**, Aimin L, Sorensen A, Blackshaw S, Fukuda-Kamitana T, Daiger SP, Craft C, Kamitani T, Sohocki MM. The inherited blindness associated protein, AIPL1, interacts with the cell-cycle regulator protein, NUB1. Hum Mol Genet 11:2723-2733, 2002.
- 16. Mohn D, Chen S, Dias D, Weinstein D, **Dyer MA**, Ducker CE, Zharadka KE, Keller G, Zaret KS, Gudas L, Baron MH. Mouse *Mix* gene is activated early during differentiation of ES and F9 stem cells and induces endoderm in frog embryos. Dev Dyn 226:446-459, 2003.
- 17. **Dyer MA**, Livesey FJ, Cepko C, Oliver G. Prox1 regulates progenitor cell proliferation and horizontal cell development in the mouse retina. Nat Genet 34:53-58, 2003.
- 18. **Dyer, MA**. Regulation of proliferation, cell fate specification and differentiation by the homeodomain proteins Prox1, Six3, and Chx10 in the developing retina. Cell Cycle 4:350-357, 2003.
- 19. **Dyer MA**. Mouse models of childhood cancer of the central nervous system. J Clin Pathol 57:561-576, 2004.
- 20. Zhang J, Gray J, Wu L, Leone G, Rowan S, Cepko CL, Zhu X, Craft CM, **Dyer MA**. Rb regulates proliferation and rod photoreceptor development in the mouse retina. Nat Genet 36:351-360, 2004.
- 21. Zhang J, Schweers B, **Dyer MA.** The first knockout mouse model of retinoblastoma. Cell Cycle 3:952-959, 2004.
- 22. **Dyer MA**, Donovan SL, Zhang J, Gray J, Ortiz A, Tenney T, Kong J, Allikmets R, Sohocki MM. Retinal degeneration in *Aipl1* deficient mice: a new genetic model of Leber congenital amaurosis. Brain Res Mol Brain Res 132:208-220, 2004.
- 23. Donovan SL, **Dyer MA**. Developmental defects in Rb deficient retinae. Vision Res 44:3323-3333, 2004.
- 24. **Dyer MA**, Bremner R. The search for the retinoblastoma cell of origin. Nat Rev Cancer 5:91-101, 2005.
- 25. Donovan SL, **Dyer MA**. Regulation of proliferation in the developing central nervous system. Semin Cell Dev Biol 16:407-421, 2005.
- 26. Schweers B, **Dyer MA**. Perspective: new genetic tools for studying retinal development and disease. Vis Neurosci 22:553-560, 2005.
- 27. Laurie NA, Gray JK, Zhang J, Leggas M, Relling M, Egorin M, Stewart C, **Dyer MA**. Topotecan combination chemotherapy in two new rodent models of retinoblastoma. Clin Cancer Res 11:7569-7578, 2005.
- 28. **Dyer MA**, Rodriguez-Galindo C, Wilson MW. Use of preclinical models to improve treatment of retinoblastoma. PLOS Med 2:971-976, 2005.
- 29. Sun H, Chang Y, Schweers B, **Dyer MA**, Zhang X, Hayward SW, Goodrich DW. An E2F binding-deficient Rb1 protein partially rescues developmental defects associated with Rb1 nullizygosity. Mol Cell Biol 26:1527-1537, 2006.
- 30. Donovan SL, Schweers BA, Zhang J, Martins RA, Johnson DJ, **Dyer MA**. Compensation by tumor suppressor genes during retinal development in mice and humans. BMC Biology 4:14 (open access), 2006.

- 31. Johnson D, Donovan S, **Dyer MA**. Mosaic deletion of Rb arrests rod differentiation and stimulates ectopic synaptogenesis in the mouse retina. J Comp Neurol 498:112-128, 2006.
- 32. Martins RAP, Linden R, **Dyer MA**. Glutamate regulates retinal progenitor cells proliferation during development. Eur J Neurosci 24:969-980, 2006.
- 33. Marine J-C, **Dyer MA**, Jochemsen AG. MDMX: from Bench to Bedside. J Cell Sci 120:371-378, 2007.
- Laurie N, Donovan S, Gray J, Fuller C, Johnson D, Wilson M, Rodriguez-Galindo C, Marine J-C, Jochemsen AG, Mendrysa S, **Dyer MA**. Inactivation the p53 pathway in retinoblastoma. Nature 444:61-66, 2006. Faculty of 1000 (F1000)
- 35. Donovan SL, **Dyer MA**. Preparation and square-wave electroporation of retinal explant cultures. Nat Protocols 1:2710-2718, 2007.
- 36. Johnson DA, Zhang J, Frase S, **Dyer MA**. Neuronal differentiation and synaptogenesis in retinoblastoma. Cancer Res 67(6):2701-2711, 2007.
- 37. MacPherson D, **Dyer MA**. Retinoblastoma: from the two-hit hypothesis to targeted chemotherapy. Cancer Res 67(16):7547-7550, 2007.
- Besson A, Hwang HC, Cicero S, Donovan SL, Gurian-West M, Johnson D, Clurman BE, Dyer MA, Roberts JM. Discovery of an oncogenic activity in p27Kip1 that causes stem cell expansion and a multiple tumor phenotype. Genes Dev 21(14):1731-1746, 2007.
- 39. Laurie N, Schin-Shih C, **Dyer MA.** Targeting MDM2 and MDMX in retinoblastoma. Curr Cancer Drug Targets 7(7):689-695, 2007.
- Ajioka I, Martins R, Bayazitov I, Johnson D, Frase S, Donovan SL, Boyd K. Zakharenko SS, Dyer MA. Differentiated horizontal interneurons clonally expand to form metastatic retinoblastoma in mice. Cell 131(2):378-390, 2007. PMCID: PMC2203617. Faculty of 1000 (F1000)
- 41. Ajioka I, **Dyer MA**. A new model of tumor susceptibility following tumor suppressor gene inactivation. Cell Cycle 7(6):735-740, 2008.
- 42. Pounds S, **Dyer MA.** Statistical analysis of data from retroviral clonal experiments in the developing retina. Brain Res 1192:178-185, 2008. PMCID: PMC2699588
- Martins RAP, Zindy F, Donovan S, Zhang J, Pounds S, Knoepfler PS, Eisenman RN, Roussel M, Dyer MA. N-myc coordinates retinal growth with eye size during mouse development. Genes Dev 22(2):179-193, 2008. PMCID: PMC2192753. Faculty of 1000 (F1000)
- 44. Shih C, Laurie L, Holzmacher J, Hu Y, Nathwani AC, Davidoff AM, **Dyer MA**. AAV-mediated delivery of interferon-β for the treatment of retinoblastoma in preclinical models. Neuromolecular Med 11(1):43-52, 2009. PMCID: PMC2725441
- 45. Rodriguez-Galindo C, Wilson MW, Chantada G, Fu L, Qaddoumi I, Antoneli C, Leal-Leal C, Sharma T, Barnoya M, Epelman S, Pizzarello L, Kane JR, Barfield R, Merchant TE, Robison LL, Murphree AL, Chevez-Barrios P, **Dyer MA**, O'Brien J, Ribeiro RC, Hungerford J, Helveston EM, Haik BG, Wilimas J. Retinoblastoma: One world, one vision. Pediatrics 122:3, e763-770, 2008. PMCID: PMC Journal In process
- 46. **Dyer MA**, Abramson DH. Mutations and cancer: One or two-historical perspectives? Lancet Oncol 10(8):834, 2009. (PMCID: N/A)
- Cicero SA, Johnson D, Reyntjens S, Frase S, Connell S, Chow MLC, Baker S, Sorrentino BP and Dyer MA. Cells Previously Identified as Retinal Stem Cells are Pigmented Ciliary Epithelial Cells. Proc Natl Acad Sci 106(16):6685-6690, 2009. PMCID: PMC2672506.
- 48. **Dyer MA**, Martins RAP, Filho MDS, Muniz JA, Silveira LC, Cepko CL, Finlay BL. Developmental sources of conservation and variation in the evolution of the primate eye. Proc Natl Acad Sci 106(22):8963–8968, 2009. PMCID: PMC2690025
- 49. Laurie N, Mohan A, McEvoy J, Reed D, Zhang J, Schweers B, Ajioka I, Valentine V, Johnson D, Ellison D, **Dyer MA.** Changes in retinoblastoma cell adhesion associated with optic nerve invasion. Mol Cell Biol 29(23):6268-6282, 2009. PMCID: PMC2786692.
- 50. Lambertz I, Nittner D, Mestdagh P, Denecker G, Vandesompele J, **Dyer MA**, Marine JC. Monoallelic but not bialleleic loss of Dicer1 promotes tumorigenesis in vivo. Cell Death Differ (18 December 2009; doi:10.1038/cdd.2009.202 [Epub ahead of print]). PMCID: PMC2892162.
- 51. Reed D, Shen Y, Shelat AA, Arnold LA, Ferreira AM, Zhu F, Mills N, Smithson DC, Regni CA, Bashford D, Cicero SA, Schulman BA, Jochemsen AG, Guy RK, **Dyer MA**. Identification and characterization of

- the first small molecule inhibitor of MDMX. Biol Chem 285(14):10786-10796, 2010. PMCID: PMC2856285.
- 52. Nemeth K, Federico S, Angel MC, Shen Y, Schaiquevich P, Zhang J, Egorin M, Stewart C, **Dyer MA**. Subconjunctival carboplatin and systemic topotecan treatment in preclinical models of retinoblastoma. Cancer 117(2):421-434, 2010. PMCID: PMC3000447.
- 53. Brennan R, Federico S, and **Dyer MA**. The war on cancer: have we won the battle but lost the war? Oncotarget 1(2), 2010. PMCID: PMC2945373.
- 54. Zhang F, Tagen M, Throm S, Mallari J, Miller L, Guy KR, **Dyer MA**, Williams RT, Roussel MF, Nemeth K, Zhu F, Zhang J, Lu M, Stewart CF. Whole body physiologically-based pharmacokinetic model for Nutlin-3a in mice after intravenous and oral administration. Drug Metab Dispos 2010 Oct 14. PMCID: PMC3014266.
- 55. Kerekes RA, Martins RAP, Davis D, Karakaya M, Gleason S and **Dyer MA**. Automated tracing of horizontal neuron processes during retinal development. Neurochem Res 36(4):583-593, 2011. PMCID: PMC3097172.
- 56. Teitz T, Stanke J, Federico S; Bradley C; Brennan R; Zhang J; Johnson MD; Sedlacik J; Inoue M; Zhang ZM, Frase S; Rehg JE; Hillenbrand CM; Finkelstein D; Calabrese C; **Dyer MA**; Lahti JM. Preeclinical models for neuroblastoma: Establishing a baseline for treatment. PLoS One 6(4):e19133, 2011. PMCID: PMC3084749
- 57. Brennan RC, Federico S, Bradley C, Zhang J, Flores-Otero J, Wilson M, Stewart CF, Zhu F, Guy K, **Dyer MA**. Targeting the p53 pathway in retinoblastoma with subconjunctival Nutlin-3a. Cancer Res [Epub ahead of print Apr 22], 2011. PMCID: PMC3116943. Faculty of 1000 (F1000)
- 58. McEvoy J, Flores-Otero J, Zhang J, Nemeth K, Brennan RC, Rodriguez-Galindo C, Wilson M, Xiong S, Lozano G, Sage J, Fu L, Louhibi L, Trimarchi J, Pani A, Smeyne R, Johnson D, **Dyer MA.** Coexpression of normally incompatible developmental pathways in retinoblastoma. Cancer Cell 20(2):260-275, 2011. PMCID: PMC3551581, Faculty of 1000 (F1000).
- 59. Martins RAP, Davis D, Kerekes R, Jiakun Zhang, Bayazitov IT, Hiler D, Karakaya M, Frase S, Gleason G, Zakharenko SS, Johnson D, and **Dyer MA**. Retinoblastoma (Rb) regulates laminar dendritic arbor reorganization in retinal horizontal neurons. Proc Natl Acad Sci 108(52):21111-21116, 2011. PMCID: PMC3248513.
- 60. Zhang J, Benavente CA, McEvoy J, Flores-Otero J, Ding L, Chen X, Ulyanov A, Wu G, Wilson W, Wang J, Brennan R, Rusch M, Manning AL, Ma J, Easton J, Shurtleff S, Mullighan C, Pounds S, Mukatira S, Gupta P, Neale G, Zhao D, Lu C, Fulton RS, Fulton LL, Hong X, Dooling DJ, Ochoa K, Naeve C, Dyson NJ, Mardis ER, Bahrami A, Ellison D, Wilson RK, Downing J and **Dyer MA.** A novel retinoblastoma therapy from genomic and epigenetic analyses. Nature 481(7381):329-334, 2012. doi: 10.1038/nature10733. PMCID:PMC3289956. Faculty of 1000 (F1000)
- 61. McEvoy J, Ulyanov A, Brennan R, Wu G, Pounds S, Zhang J and **Dyer MA**. Analysis of MDM2 and MDM4 single nucleotide polymorphisms, mrna splicing and protein expression in retinoblastoma. PLoS One 7(8):e42739, 2012. PMC3423419.
- 62. Nittner D, Lambertz I, Clermont F, Mestdagh P, Köhler C, Nielsen SJ, Jochemsen A, Speleman F, Vandesompele J, **Dyer MA**, Schramm A, Schulte JH, Marine JC. Synthetic lethality between Rb, p53 and Dicer or miR-17-92 in retinal progenitors suppresses retinoblastoma formation. Nat Cell Biol 14(9):958-965, 2012. doi: 10.1038/ncb2556. (PMCID: PMC Journal in Process)
- 63. Bista M, Smithson D, Pecak A, Salinas G, Pustelny K, Min J, Pirog A, Finch K, Zdzalik M, Waddell B, Wladyka B, Kedracka-Krok S, **Dyer MA**, Dubin G, Guy RK. On the mechanism of action of SJ-172550 in inhibiting the interaction of MDM4 and p53. PLoS One 7(6):e37518, 2012. PMCID:PMC3366986
- 64. Cheung NK, Zhang J, Lu C, Parker M, Bahrami A, Tickoo SK, Heguy A, Pappo AS, Federico S, Dalton J, Cheung IY, Ding L, Fulton R, Wang J, Chen X, Becksfort J, Wu J, Billups CA, Ellison D, Mardis ER, Wilson RK, Downing JR, **Dyer MA**; St Jude Children's Research Hospital–Washington University Pediatric Cancer Genome Project. Association of age at diagnosis and genetic mutations in patients with neuroblastoma. J Am Med Assoc 307(10):1062-1071, 2012. PMCID:PMC3527076
- 65. Wu G, Broniscer A, McEachron TA, Lu C, Paugh BS, Becksfort J, Qu C, Ding L, Huether R, Parker M, Zhang J, Gajjar A, **Dyer MA**, Mullighan CG, Gilbertson RJ, Mardis ER, Wilson RK, Downing JR, Ellison DW, Zhang J, Baker SJ; St. Jude Children's Research Hospital–Washington University Pediatric Cancer Genome Project. Somatic histone H3 alterations in pediatric diffuse intrinsic pontine gliomas and non-

- brainstem glioblastomas. Nat Genet 44(3):251-253, 2012. doi: 10.1038/ng.1102. PMCID: PMC3288377.
- 66. Parker M, Chen X, Bahrami A, Dalton J, Rusch M, Wu G, Easton J, Cheung NK, Dyer MA, Marids E, Wilson R, Mullighan C, Gilbertson R, Baker S, Zambetti G, Ellison E, James R Downing JR, Jinghui Zhang J. Assessing telomere content in pediatric cancers using whole-genome sequencing data. Genome Biol 13(12):R113, 2012. PMCID: PMC3580411.
- 67. Cheung NV, **Dyer MA.** Neuroblastoma: developmental biology, cancer genomics and immunotherapy. Nat Rev Cancer 13(6):397-411, 2013.
- 68. Valle-Garcia D, Griffiths LM, Recillas-Targa F, **Dyer MA**, and Bernstein E. IS10-element insertion hotspots in ATRX cDNA alter its structure and function. (submitted), 2013.
- 69. Zhang H, Nieves JL, Fraser ST, Isern J, Douvaras P, Papatsenko D, D'Souza SL, Lemischka IR, **Dyer MA**, Baron MH. Expression of Podocalyxin separates the hematopoietic and vascular potentials of mouse ES cell-derived mesoderm. Stem Cells doi: 10.1002/stem.1536. [Epub ahead of print Sep 10], 2013.
- 70. Benavente CA, McEvoy JD, Finkelstein D, Wei L, Kang G, Wang YD, Neale G, Ragsdale S, Valentine V, Bahrami A, Temirov J, Pounds S, Zhang J, **Dyer MA**. Cross-species genomic and epigenomic landscape of retinoblastoma. Oncotarget 4(6):844-859, 2013.
- 71. Chen X, Stewart E, Shelat A, Qu c, Bahrami A, Hatley M, Wu G, Bradley C, McEvoy J, Pappo P, Spunt S, Valentine M, **Dyer MA**. Targeting oxidative stress in embryonal rhabdomyosarcoma. Cancer Cell 24(6):710-724, 2013.
- 72. Benavente CA, **Dyer MA**. Genetics and epigenetics of human retinoblastoma. Annual Reviews of Pathology: Mechanisms of Disease. (in press), 2013.
- 73. McEvoy J, Nagahawatte P, Finkelstein D, Richards-Yutz J, Valentine M, Mullighan C, Song G, Chen X, Wilson M, Brennan R, Pounds S, Becksfort J, Huether R, Lu C, Fulton RS, Fulton LL, Hong X, Dooling DJ, Ochoa K, Mardis ER, Wilson RK, Easton J, Zhang J, Downing JR, Ganguly A, **Dyer MA.** RB1 gene inactiviation by chromothripsis in human retinoblastoma. Oncotarget 5(2):438-450, 2014.
- 74. Chen X, Bahrami A, Pappo A, Easton J, Dalton J, Hedlund E, **Dyer MA**. Recurrent somatic structural variations contribute to tumorigenesis in pediatric osterosarcoma. Cell Rept 7(1):104-112, 2014.
- 75. Miles WO, Korenjak M, Griffiths L, **Dyer M**, Provero P, Dyson N. Post-transcriptional regulation by NANOS counterbalances E2F activity to suppress apoptotic responses in pRb deficient cells. (submitted), 2013.
- 76. Bharatham N, Finch KE, **Dyer MA**, Guy RK, Bashford D. Performance of virtual screening methods for nutlin-class inhibitors of MDMX. (submitted), 2014.
- 77. Lu C, Nagahawatte P, Easton J, Liu Z, Navid F, Ding L, **Dyer M**, Downing J, Pappo A. The genomic landscape of childhood and adolescent melanoma. (submitted), 2014.
- 78. Pritchard EM, Stewart E, Zhu F, Bradley C, Griffiths L, Yang L, Suryadevara PK, Zhang J, Freeman BB, Guy RP, **Dyer MA**. Pharmacokinetics and efficacy of the spleen tyrosina kinase inhibitor R406 after ocular delivery for retinoblastoma. (in revision), 2014.

## **Book Chapters**

- 1. **Dyer MA** and Harbour JW. Genetic and cellular events in retinoblastoma. In: Singh AD, Damato B, Pe'er J, Murphree AL, eds. Clinical Opthalmic Oncology, Chapter 66, Section 6: Retinoblastoma, pp.405-409), March, 2007.
- 2. Cicero S and **Dyer MA**. Retinal progenitor cells, retinal stem cells and retinoblastoma. In: Stem cells and cancer research, Ed. Columbus, F. Nova Press, 2007.
- 3. **Dyer, MA**. Rb and the control of retinal development. Eye, Retina and Visual System of the Mouse. Chalupa, LM, and Williams, RW eds. MIT Press, 2007.
- 4. **Dyer MA** and Doz F. Retinoblastoma. Clinical Pediatric Oncology and Hematology. Gilbertson R, Estlin E and Wynn R. eds. Blackwell Publishing. (in press), 2007.
- 5. **Dyer MA.** Biology and Treatment of Retinoblastoma. Rodriguez-Galindo, C. eds. Clinical Medicine. (in press), 2007.
- 6. Estlin E, Doz F, **Dyer M**. Retinoblastoma. Pediatric Hematology and Oncology, Blackwell Publishing (in press), 2010.
- 7. Davis D and **Dyer MA.** Retinal Progenitor Cells, Differentiation and Reprogramming in the Mammalian Retina. Current Topics in Developmental Biology (volume title: Retinal Development) (in press) Elsevier,

2010.

- 8. Federico S. Brennan R and **Dyer MA.** Childhood Cancer and Developmental Biology: A Crucial Partnership. Current Topics in Developmental Biology (volume title: Cancer and Development) (in press) Elsevier, 2010.
- Cicero SA, Johnson DJ and Dyer, MA. Cell Based Therapies to Restore Photoreceptors Lost to Retinal Degeneration. Stem cell transplantation to the retina: Development, plasticity, regeneration and repair (in press), 2010.
- 10. Davis M, **Dyer MA**. Retinal Progenitor Cells, Differentiation, and Barriers to Cell Cycle Reentry. Current Topics in Developmental Biology, 2010;93:175-88.
- 11. Estlin E, Francois D, **Dyer MA**. Retinoblastoma. Pediatric Hematology and Oncology (Scientific Principles and Clinical Practice), 2010:306-318.
- 12. Benavente CA, **Dyer MA**. Genetically engineered mouse and orthotopic human tumor xenograft models of retinoblastoma. Methods in Molecular Biology, 2013 (in press).

#### **Editorials**

Wilson MW, Dyer MA, Super-Selective Intra-ophthalmic Artery Chemotherapy: What We Do Not Know, 2011 (in preparation)

## **Patents**

Animal models of retinal tumorigenesis. International Publication No. WO 2005/041647 published May 12, 2005. US patent application publication no. 20050086708 published April 21, 2005. Michael Allen Dyer, sole inventor.

Method for treating Ocular cancer, International Publication No. 2008/014216 A1 published 31 January 2008, international application published under the Patent Cooperation Treaty (PCT). Inventors: Dyer, Michael A; Marine, Jean-Christophe; Jochemsen, Aart Gerrit.

## **Presentations**

# **Presentations and Invited Seminars since 4/04**

4/14/04	Interdepartmental Neuroscience Program Seminar
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University of Iowa – Invited Seminar

"Regulation of proliferation during retinal development"

4/23-24/04 8<sup>th</sup> Annual Vision Research Conference – Ft. Lauderdale FL

The Mouse Visual System From photoreceptors to cortex

Presenter: "The Rb protein regulates retinal progenitor cell proliferation and rod development in

the mouse retina"

4/28/04 Association for Research in Vision and Opthalmology (ARVO)

Presenter: "Rb regulates proliferation and rod photoreceptor development in the mouse retina"

5/18/04 Brazilian Society of Biochemistry & Molecular Biology (SBBq)

18<sup>th</sup> Annual Meeting

Invited Speaker: "Rb regulates proliferation and rod photoreceptor development in the mouse"

8/02/04 Pacific Rim Brain Conference, Kailua-Kona, Hawaii

Session Organizer (w/Geisert): The Response of the Retina to Injury and Potential for

Recovery

Presenter: "Role of the p53 Gene in Regulating Müller Cell Gliosis"

10/14/04	The Laboratory Mouse in Vision Research The Jackson Laboratory, Bar Harbor, Maine Presenter: "The Role of Rb in retinal progenitor cell proliferation and rod photoreceptor development"
10/28/04	UCLA – Graduate Student invitation – Los Angeles, CA Invited Speaker: "The role of Rb protein in retinal development and retinoblastoma"
2/6/05	Keystone Symposium: Cancer & Development – Banff, Canada, invited speaker
3/5-10/05	2005 Annual Meeting – Pew Scholars Program in the Biomedical Sciences Cozumel, Mexico Presented seminar
3/17/05	Columbia University - NY, NY Zacharias Dische Lecture & Minisymposium – Genes in the Eye in Development and Disease Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"
3/29/05	Rockefeller University - NY, NY Invited speaker: "Coordination of proliferation and cell fate specification during retinal development"
4/8/05	National Graduate Student Symposium – Memphis, TN, invited speaker: short research talk
4/5/05	Washington University- Graduate student invitation - St. Louis, MO Invited speaker: "The role of the Rb Family in Retinal Development and Retinoblastoma"
4/28-29/05	SJCRH – Memphis, TN Organizer: Retinoblastoma: From Bench to Bedside Symposium and presented seminar: "Chemotherapy in 3 new models of retinoblastoma"
5/4/05	ARVO 2005 Meeting – Ft Lauderdale, FL; Presenter: "Compensation by p107 following Rb gene inactivation prevents retinoblastoma in mice but no humans"
5/23-24/05	
	Case Western Reserve University - Cleveland, OH, Graduate student invitation Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"
10/6/05	
10/6/05 1/25/06	Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"
	Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"  Baylor University, Houston, TX, invited speaker – Cancer Biology
1/25/06	Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"  Baylor University, Houston, TX, invited speaker – Cancer Biology  Johns Hopkins University – Baltimore, MD, invited speaker - Neurobiology  The Jackson Laboratory, Bar Harbor, ME;
1/25/06 9/28/06	Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"  Baylor University, Houston, TX, invited speaker – Cancer Biology  Johns Hopkins University – Baltimore, MD, invited speaker - Neurobiology  The Jackson Laboratory, Bar Harbor, ME; Invited speaker & session chair "The laboratory mouse in vision research"
1/25/06 9/28/06 1/25/06	Invited speaker: "The role of the Rb family in retinal development and retinoblastoma"  Baylor University, Houston, TX, invited speaker – Cancer Biology  Johns Hopkins University – Baltimore, MD, invited speaker - Neurobiology  The Jackson Laboratory, Bar Harbor, ME; Invited speaker & session chair "The laboratory mouse in vision research"  ICE Seminar – Johns Hopkins – Baltimore, MD, invited speaker

4/29/06	ARVO 2006 Ocular Oncology Educational Course – "Mouse Models to Improve our Understanding of Retinoblastoma", invited speaker
5/17/06	Gordon Research Conference – Visual System Development – Barga, Italy – "Uncoupled proliferation and differentiation in horizontal cells", invited speaker
9/14/06	2006 Interdisciplinary Senior Seminar Series/Current Research in Neuroscience – "Compensation by tumor suppressor genes during retinal development in mice and humans" - Rhodes College, Memphis, TN, invited speaker
12/05/06	ACVP Seminar – invited speaker, Tucson, AZ "preclinical models of retinoblastoma"
1/25-26/07	Retinoblastoma Conference 2007 – invited speaker "Opportunities in international outreach in retinoblastoma research and treatment," SJCRH
3/7/07	Professional Advisory Board Meeting – invited speaker, SJCRH
4/9/07	Integrative Cellular & Molecular Signaling Group – "The Role of the Rb family in retinal development and retinoblastoma" - Virginia Commonwealth University, Richmond, VA, invited keynote speaker
4/15/07	AACR Meeting—"Targeting the p53 pathway in cancer" Los Angeles, CA, invited panel discussion leader
4/17/07	AACR Meeting-"Identification of the retinoblastoma cell of origin" Los Angeles, CA, invited speaker
9/24/07	Upstate Medical University, invited speaker
9/24/07 10/8/07	Upstate Medical University, invited speaker  Biomedical Research Forum Lecture, SJCRH, invited speaker
10/8/07	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal
10/8/07 11/8/07	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited
10/8/07 11/8/07 11/16/07	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker
10/8/07 11/8/07 11/16/07 1/15/08	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker  DTSM Research Seminar, SJCRH, invited speaker
10/8/07 11/8/07 11/16/07 1/15/08 1/19/08	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker  DTSM Research Seminar, SJCRH, invited speaker  UT-Neuroscience Seminar series, invited speaker
10/8/07 11/8/07 11/16/07 1/15/08 1/19/08 2/18/08	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker  DTSM Research Seminar, SJCRH, invited speaker  UT-Neuroscience Seminar series, invited speaker  Fred Hutchinson Cancer Research Center, Seattle, WA, invited speaker
10/8/07 11/8/07 11/16/07 1/15/08 1/19/08 2/18/08 2/27/08	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker  DTSM Research Seminar, SJCRH, invited speaker  UT-Neuroscience Seminar series, invited speaker  Fred Hutchinson Cancer Research Center, Seattle, WA, invited speaker  Keystone Symposium on Stem Cells and Cancer, Vancouver CA, invited speaker  SOT Symposium— Neurotoxicant Induced Alterations in Developmental and Adult
10/8/07 11/8/07 11/16/07 1/15/08 1/19/08 2/18/08 2/27/08 3/16/08	Biomedical Research Forum Lecture, SJCRH, invited speaker  American Cancer Society Professors Meeting, Naples, FL. "The role of the Rb family in retinal development and retinoblastoma", invited speaker  Pediatric Oncology Group, Toronto, CA. "Translational research in retinoblastoma", invited speaker  DTSM Research Seminar, SJCRH, invited speaker  UT-Neuroscience Seminar series, invited speaker  Fred Hutchinson Cancer Research Center, Seattle, WA, invited speaker  Keystone Symposium on Stem Cells and Cancer, Vancouver CA, invited speaker  SOT Symposium— Neurotoxicant Induced Alterations in Developmental and Adult Neurogenesis, invited speaker

4/8/08	University of Tennessee-Neuroscience Seminar, invited speaker
4/12/08	AACR Meeting, Pediatric Cancer session, invited speaker
4/24/08	ARVO Retinoblastoma meeting, invited speaker
4/27/08	ARVO Cogan Award Lecture, Ft. Lauderdale, FL, award recipient
6/12/08	NIH Neuronal regeneration symposium, Bethesda, MD, invited speaker
8/10/08	Gordon Research Conference – Visual System Development – Salve Regina University, invited speaker
9/2/08	International Society for Ocular Cell Biology (ISOCB), San Diego, CA, invited speaker
10/9/08	Roswell Park Cancer Institute, Buffalo, New York, invited speaker
10/27/08	Translational Biology Workshop, Ames, Iowa
11/6/08	University of Michigan, Ann Arbor, MI, invited speaker
11/7/08	Second Annual AOA sponsored St.Jude/UT Research Lectureship, invited speaker
11/12/08	Princeton University, invited speaker
12/12/08	University of Utah, Salt Lake City, Utah, invited speaker
1/12/09	University of Southern California, Keck School of Medicine, Los Angeles, CA, invited speaker
2/4/09	University of California San Francisco, "Seminars in Biomedical Sciences", invited speaker
2/5/09	University of California San Francisco, "UCSF Grand Rounds", invited speaker
2/19/09	Cole Eye Institute, Cleveland, OH, invited speaker
3/12/09	Mount Sinai School of Medicine, New York, New York invited speaker
3/27/09	Baylor College of Medicine, Houston, Texas, invited speaker
4/8/09	Stanford University, San Francisco, CA, invited speaker
5/19/09	Stowers Institute for Medical Research, Kansas City, Mo, invited speaker
6/16/09	University of Louisville, Louisville, KY, invited speaker
7/23/09	Baylor College of Medicine, Houston, Texas, invited speaker
10/13/09	Nationwide Children's Hospital, Columbus, OH, invited speaker
11/11/09	NABT Professional Developmental Conference, Denver, CO, invited speaker
11/12/09	Macula Vision Research Foundation Conference, Washington, DC, invited speaker
11/30/09	Children's Hospital Boston/Harvard Medical School, invited speaker

1/15/10	University of Texas at Austin Neuroscience Symposium, Austin, TX, invited speaker
2/18/10	UNC Neuroscience Center, Chapel Hill, NC, invited speaker
4/17-21/10	AACR Annual Meeting, Washington, DC, New Concept Session co-chair
5/28/10	Gordon Research Conference – Visual System Development – Lucca (Barga), Italy "Bridging the gap between development and disease in the retina", invited speaker
6/16/10	Memorial Sloan-Kettering Cancer Center Grand Rounds, New York, NY, invited speaker
7/11/10	FASEB Summer Research Conference, Austin, TX, invited speaker
8/6/10	Education Symposium for SDB meeting, Albuquerque, NM, invited speaker
10/2/10	Great Lakes Vision Research Conference, Ann Arbor, MI, invited speaker
1/20/11	Iowa State University, Ames, Iowa, invited speaker
2/16/11	Columbia University, New York, NY, invited speaker
3/7-11/11	Keystone Symposium on Stem Cells, Cancer and Metastasis, Keystone, Colorado, invited speaker
3/7/11	Biomedical Science and Engineering Center Conference, Oak Ridge, TN, invited speaker
3/24-25/11	FASEB Translational Research Symposium, Chevy Chase, MD, invited speaker
4/3-4/11	AACR Annual Meeting, Orlando, FL, invited speaker
4/27/11	GWU Neuroscience Symposium, invited speaker
5/13/11	University of Virginia, Charlottesville, VA, invited speaker
9/15/11	University of Texas @ Austin, invited speaker
10/1/11	Baylor College of Medicine, Austin Texas, invited speaker
10/29/11	Bressler Symposium, New York, NY, invited speaker
1/18-20/12	Schepens Eye Research Institute, Boston, MA, invited speaker
2/5-8/12	Pediatric Cancer Translational Genomics (PCTG), Phoenix, AZ
4/2/12	AACR Annual Meeting, Chicago, IL, invited speaker
4/11-13/12	Dana-Farber Cancer Institute, Boston, MA, invited speaker
4/26/12	University California San Francisco (UCSF), San Francisco, CA, invited speaker
5/9-12/12	ASPHO meeting, New Orleans, LA, invited speaker
5/15/12	Northwestern University, Chicago, IL, invited speaker

8/13-14/12	Fundamental Issues in Eye Research (FIVR), Washington, DC, invited speaker
8/18-24/12	Gordon Research Conference (Session Chair), New London, NH, invited speaker
11/18-21/12	University of Pennsylvania, Philadelphia, PA, invited speaker
9/6-7/12	San Diego Symposium, San Diego, California, invited speaker
10/15-17/12	Mount Sinai School of Medicine, New York, NY, invited speaker
10/11-13/12	McGill University, Montreal, Canada, invited speaker
2/25-27/13	Children's Hospital of Philadelphia, Philadelphia, PA, invited speaker
3/18-20/13	Florida State University, Tallahassee, FL, invited speaker
3/21-22/13	Translational Mini-symposium Lecture Series, Lexington, KY, invited speaker
4/8-10/13	COG, Minneapolis, MN, invited speaker
4/7-19/13	Vollum Institute, Portland, OR, invited speaker
5/5-9/13	ARVO Symposium, Seattle, WA, invited speaker
5/19-20/13	MD Anderson, Houston, TX, invited speaker
7/7-12/13	Gordon Conference, Lucca, Italy, invited speaker
8/27-29/13	University of Georgia (UGA), Athens, GA, invited speaker
9/15-16/13	University of Pennsylvania, Philadelphia, PA, invited speaker
10/23-25/13	Florida State University, Tallahassee, FL, invited speaker
11/4-5/13	AACR Annual Meeting, San Diego, CA, invited speaker
11/11-13/13	6 <sup>th</sup> Annual BTP Symposium, Charlottesville, VA, invited speaker
12/4/13	University of California, Berkley, invited speaker
Teaching 10/2/03	Interdisciplinary Senior Seminar Series – "Coordination of Cell Fate Specification and Cell Cycle
4/06	Exit in the Developing CNS", Rhodes College, Memphis, TN  Molecular Biology of Cancer course – "pRb and Control of the Cell Cycle Clock", University of
9/14/06	Tennessee, Memphis, TN Interdisciplinary Senior Seminar Series – "Compensation by tumor suppressor genes during
10/2/06	retinal development in mice and humans, Rhodes College, Memphis, TN Molecular Biology of Cancer course – "pRb and Control of the Cell Cycle Clock" - University of
9/6/2007 10/17/07 10/19/07 9/6/08	Tennessee, Memphis, TN Mitotic activity/Lineage Development Course, University of Tennessee, Memphis, TN IP940 Molecular Basis of Cancer Course, University of Tennessee, Memphis, TN IP940 Molecular Basis of Cancer Course, University of Tennessee, Memphis, TN Developmental Neuroscience class – "Mitotic activity/Lineage Development", University of

0/00/00	Tennessee, Memphis, TN
9/22/08 9/24/08	IP940 Molecular Basis of Cancer Course, University of Tennessee, Memphis, TN IP940 Molecular Basis of Cancer Course, University of Tennessee, Memphis, TN
9/1/09	Developmental Neuroscience class – "Mitotic activity/Lineage Development", University of
	Tennessee, Memphis, TN
9/21/09	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
9/23/09	University of Tennessee, Memphis, TN IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
3/23/03	University of Tennessee, Memphis, TN
9/20/10	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
0/04/40	University of Tennessee, Memphis, TN
9/21/10	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock", University of Tennessee, Memphis, TN
9/19/11	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
	University of Tennessee, Memphis, TN
9/21/11	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
3/7/12	University of Tennessee, Memphis, TN Rhodes College Spring Semester 2012 Senior Seminar, Memphis, TN
9/14/12	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
	University of Tennessee, Memphis, TN
9/19/12	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
9/18/13	University of Tennessee, Memphis, TN IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
0,10,10	University of Tennessee, Memphis, TN
9/19/13	IP940-Molecular Biology of Cancer Course – "pRb and Control of the Cell Cycle Clock",
	University of Tennessee, Memphis, TN
Study Section	
•	ns
<b>Study Section</b> 10/3-5/2004	
10/3-5/2004	ns  CAMP – NIH Study Section
10/3-5/2004 6/29-30/2005	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate
10/3-5/2004 6/29-30/2005	ns  CAMP – NIH Study Section
10/3-5/2004 6/29-30/2005 10/16-17/200	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006	ns  CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006 9/17-18/2007 10/4-5/2007	CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC  CAMP – NIH Study Section
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006 9/17-18/2007 10/4-5/2007 2/11-12/2010	CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC  CAMP – NIH Study Section  BDPE Study Section, Washington, DC
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006 9/17-18/2007 10/4-5/2007 2/11-12/2010 6/20-21/2011	CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC  CAMP – NIH Study Section  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Chicago, IL
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006 9/17-18/2007 10/4-5/2007 2/11-12/2010 6/20-21/2011 6/14-15/2012	CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC  CAMP – NIH Study Section  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Chicago, IL  Development and Differentiation in Cancer (DDC) peer review committee, Atlanta, GA
10/3-5/2004 6/29-30/2005 10/16-17/200 2/20/2006 10/10/2006 9/17-18/2007 10/4-5/2007 2/11-12/2010 6/20-21/2011	CAMP – NIH Study Section  NCF – NIH Study Section – Neurogenesis and cell fate  5NCF – NIH Study Section  AED (Anterior Eye Disease) - NIH Study Section  BDPE Study Section, Washington, DC  CAMP – NIH Study Section  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Washington, DC  BDPE Study Section, Chicago, IL

# **Fundraising**

Country Cares Event – Memphis, TN, Invited speaker: (short presentation & F&A)

**Country Cares** 

Dayton Dream Home group

Coors Executives

Joe DeLapp ALSAC Prof Advisory Board

ESA women's service sorority executives, staff and coordinators

Dream Home Board Member group from Shreveport, LA

Domino's Pizza Executives

President and CEO of LaSalle Bank Corp of Chicago

Chicago Golf Classic group

ALSAC – Memphis, TN, invited speaker (short presentation re research)

Derek Harper, NBA player

ALSAC trip – gift planning visit – Dallas TX

Clear Channel Radio Corporation Executives

U.S. Challenge Celebrity Team

Red Bash Steering Committee

Union University student group

Executives - Casual Male stores

Southeastern Virginia Board visit

Country Cares Luncheon - Memphis, TN, invited speaker

**Country Cares** 

WJPF of Effingham, IL, On-Air Radio Interview w/Tom Miller

Rezzonico, McCann & Murphy visit

Hancock Fabrics representatives

PAB members 'Highlights' tour

Gloria Been fundraising tour

2006 St. Jude National Graduate Student Symposium

ALSAC trip - 10<sup>th</sup> Annual San Diego Gala - "A Stroll Through Brussels: the Crossroads of

Europe", Invited speaker

Fresno, CA Dream Home TV Station visit

Hershev Tour

Jim and Sue Colletti and Mr. and Mrs. Sedlecky - ALSAC Tour

Tony Lewis and Emil Pena (President and CEO of Generation Power, Inc. and former undersecretary of energy)

Collegiate Leadership Seminar Hospital Day – 'Up til Dawn,' Tri-Delta, and Four Square program – SJCRH, Memphis, TN, invited speaker

Tim and Betsy Katen (Gift Planning tour for SJ donors)

Tri-Delta Field Consultant Luncheon - SJCRH, Memphis, TN, invited speaker

Gary Stanley (LA Dream Home Chairman)

Matt McCauley, CEO of Gymboree (Informational Tour)

Rani Aliahmad of LA Fashion Show Committee (Informational Tour)

Saks Fifth Avenue Executives Visit (Thanks & Giving tour)

Parade magazine publication - ALSAC PR presentation, Los Angeles, CA

SAB meeting - Scientific Highlights from the Last Year -

brief presentation of summary of work, SJCRH

Larry King Live - invited television interview broadcast, Los Angeles, CA

Kinga Lampert Visit (Informational Tour)

Jr. League of Memphis General Membership meeting - invited speaker, SJCRH

Buddy Wilton Visit (Informational Tour)

Crayola Visit (Informational Tour)

Dream Home Video Interview

Hancock Fabrics Check Presentation – invited speaker, SJCRH

Vanna White Visit (Informational Tour)

2007 Keynote Lecture - St. Jude National Graduate Student Symposium

Hershey Visit (Informational Tour)

**Donor Brick Dedication Ceremony** 

National Direct Marketing/Thanks & Giving (Informational Tour)

Domino's Leadership/Franchise Visit (Information Tour)

Hilton Honors Visit (Informational Tour)

ESA Convention, Seattle, Washington

Marisa Coughlan Visit (Information lab Tour)

Domino's Pizza Franchise Visit (Information Tour)

Home Shopping Network "Thanks and Giving" (Informational Tour)

The Eric Trump Foundation (Informational Tour)

COORS Halloween Promotion (Information Tour)

Robert Mulford Visit (Informational Tour)

Country Cares Tour (Informational Tour)

2009 Country Cares & Radio Cares Audio Interview

Luxottica Group/Pearle Vision's Foundation Visit (Informational Tour)

Hartwell Foundation (Informational Tour)

St. Louis Rams Group (Informational Tour)

Jeff Nietschmann, Merritt Dake 7 Brett Fuller (Informational Tour)

Home Shopping Network (HSN) filming interview

Scientific Symposium - Gift Planning Event Brief speaker

Dream Home (Lab Tour and Interview)

NATO Parliamentarians Lunch, invited speaker, SJCRH

Memphis Club Meeting, invited speaker, SJCRH

Radio Cares Advisory Council (Informational Tour)

Barbara and Gail Marino Visit (Informational Tour)

Ann Danner Group Visit (Informational Tour)

John Castle Visit (Informational Tour)

ALSAC's Digital Sub-Committee meeting, invited speaker, SJCRH

ALSAC Leadership Council Visit (Informational Tour)

Grand Council of Tau Kappa Epsilon Fraternity Visit (Informational Tour)

The Eric Trump Foundation (Informational Tour)

Orange County Choppers (Informational Tour)

Conrad Hilton Foundation (Informational Tour)

Country Cares Tour (Informational Tour)

Dick's Sporting Good (Informational Tour)

Leukemia Foundation of America (Informational Tour)

McCauley & Andreozzi (Informational Tour)

Dish Network (Informational Tour)

Rima Abushakra (Informational Tour)

Lauderdale Reception, Fort Lauderdale, Florida

DC Gourmet Gala VIP (Informational Tour)

Corporate Partner Summit (Informational Tour)

SPX (Informational Tour)

Hyde Family Foundation (Informational Tour)

Community Health Charities (Informational Tour

Country Cares Tour (Informational Tour)

Sales Force Foundation (Informational Tour)

Memphis Teacher Residency Program (Informational Tour)

St. Jude Board Member Paul Juettner (Informational Tour)

International VIPs (Informational Tour)

Susan and Sheldon Schwartz (Informational Tour)

Dionne Kirschner and Guests (Informational Tour)

Inside St. Jude Symposium, invited speaker

Inside St. Jude Group (Informational Tour)

Valet Waste of Tampa (Informational Tour)

Lab Sponsor/Lab Sponsor Recruitment Inside St. Jude Event (Informational Tours

Inside St. Jude Event, invited speaker

Board Member Bruce Hopkins and guests, Phoebe Welch and Gray Muzzy, (Informational

Tour)

Dillard's and Lancôme Executive Leadership and Associates (Informational Tour)

Country Cares (Charlie Worsham of Warner Brothers Recording) (Informational Tour)

Coury Shadyac (Informational Tour)

Suzanne Karam Myers & daughters (Informational Tour)

Corporate Partner Summit, invited speaker

Sheila "Peach" Carr and Kayne Gillaspie (Informational Tour)

Noah Manduke (Informational Tour)

Inside St. Jude Group (Informational Tour)

Seattle Children's Executives (Informational Tour)

Ann Leatherman, Tullys (Informational Tour)

## **Institutional Committees**

2005-2006 Strategic Planning Working Group

**IACUC** 

Visual System Working Group Animal Imaging Committee

2006-2007 Education Program Committee

**IACUC** 

Histology Working Group

Cellular Imaging Task Force (chair)

2007-2008 Academic Programs Office Task Force

**Education Program Committee** 

**IACUC** 

Histology Working Group

Cellular Imaging Task Force (chair)

ORNL Task Force

Scientific Report Task Force

2008-2009 Clinical Protocol Scientific Review and Monitoring Committee

Academic Programs Office Task Force

**Education Program Committee** 

Histology Working Group

Cellular Imaging Task Force (chair)

**ORNL Task Force** 

Scientific Report Task Force Tissue Resource Committee

2009-2010 St. Jude Graduate School Planning Committee

**APO Oversight Committee** 

Postdoctoral Fellow Ombudsman

Histology Working Group

Cellular Imaging Task Force (chair)

**ORNL** Task Force

Scientific Report Task Force

Tissue Resource Committee Computational Biology Task Force

SAI Shared Resource Oversight Committee

2010-2011 St. Jude Graduate School Planning Committee

APO Oversight Committee
Postdoctoral Fellow Ombudsman

Histology Working Croup

Histology Working Group

Cellular Imaging Task Force (chair)

**ORNL Task Force** 

Cancer Center Advisory Committee

Tissue Resource Committee Computational Biology Task Force

SAI Shared Resource Oversight Committee

2011-2012 Institutional Animal Care and Use Committee

Cancer Center Advisory Committee

Tissue Resource Committee

St. Jude Graduate School Planning Committee

APO Oversight Committee

Postdoctoral Fellow Ombudsman

Histology Working Group

Cellular Imaging Task Force (chair)

**ORNL Task Force** 

Computational Biology Task Force

SAI Shared Resource Oversight Committee

Pediatric Cancer Genome Project Oversight Committee

Animal Pathology Oversight Committee

2012-2013 Cytogenetics Shared Resource Task Force

Hematology Chair Search Committee Cancer Center Advisory Committee

Tissue Resource Committee

St. Jude Graduate School Planning Committee

**APO Oversight Committee** 

Postdoctoral Fellow Ombudsman Cellular Imaging Task Force (chair)

**ORNL Task Force** 

Computational Biology Task Force

SAI Shared Resource Oversight Committee

Pediatric Cancer Genome Project Oversight Committee

Animal Pathology Oversight Committee

2013-2014 Hematology Chair Search Committee

Cancer Center Advisory Committee

Tissue Resource Committee Cellular Imaging Task Force

Cellular Imaging rask Force

SAI Shared Resource Oversight Committee

Pediatric Cancer Genome Project Oversight Committee

Animal Pathology Oversight Committee

Faculty Appointments and Promotions Committee

#### **Graduate Committees**

Sun-Hong Kim, July 2005

Kelly Matmati, August 2005 Guo Zuo, June 2006 Daniel Taylor, September 2007 Zhiyong Liu, August 2007 Fan Zhang, May 2011 Yu He, 2013 Hong Wang, 2013

# **Lab Members Supervised**

Name	University	Dates in Lab	Detail Detail
STUDENTS:			
Claire Brannon	BATH University	3/03-9/03	Undergraduate research program Currently in Graduate School
Sandra Culpepper	Rhodes University	6/03-6/04	Summer Plus program
Kevin Balbi	BATH University	9/03-9/04	Undergraduate research program Currently in Graduate School
Katherine Eder	Washington University	6/03-9/03	SJCRH POE Program
Hannah Jeffery	BATH University	3/05-9/05	Undergraduate research program Currently in Graduate School
Gus Mealor	University of Tennessee	6/05-9/05	Medical Student Research Program
David Chism	University of Tennessee	6/05-9/05	Medical Student Research Program
Rodrigo Martins	Federal University of Brazil	1/05-7/05	CAPES Sandwich Graduate Program
Sian Deeves	BATH University	3/05-8/06	Undergraduate research program University of Nottingham
Adithi Mohan	Birla Institute of Technology and Science (BITS), Pilani, Rajasthan, India	3/06–10/08	Visiting Graduate Student
Bryan Payne	University of Tennessee	6/07-8/08	Student Research Fellowship Currently Medical School, UT
Ann-Christin Cichon	BATH University	4/07-9/07	Undergraduate research program
Sarah Colvin	Buena Vista University	5/07-8/07	SJCRH POE Program
Jeremy Holzmacher	Rhodes College	5/06-12/07	SJCRH POE Program Currently Medical School, George Washington University
Abbie Hayes	University of Tennessee	5/06-7/08	Interdisciplinary Program
Katie Nemeth	University of Tennessee	7/07-present	Interdisciplinary Program

Postdoctoral fellow with Dr. Robert

					Cormier at the University of Minnesota Medical School. Dr. Nemeth was also accepted to the IRACDA program sponsored by the NIH to teach at the Fond du Lac Tribal College. Dr. Nemeth's research will focus on colon cancer genetics.  Tenure track faculty member in Biology Department at College of St. Scholastica
Elizabeth-Jane Harris	BATH University		4/08-9/0	08	Undergraduate research program
David Corcoran	BATH University		4/10-9/	10	Undergraduate research program
Rosalie Virata	California State Univers	sity	5/10-8/	10	Undergraduate research program (HHMI EXROP Student)
Mathew Rickman	BATH University		9/11-9/	12	Undergraduate research program
POSTDOCTORAL FE	LLOWS:				
Brett Schweers	Rice University	8/03-9/0	05	Indep	arch and Development Scientist endent Forensics of II, Hillside, IL ed to Chicago due to spouse
Stacy Donovan	SUNY	10/03-9/	/08	Studie "2006 fellow	es role of Rb in rod photoreceptors Recipient of Fight for Sight
Nikia Laurie	Brown University	4/04-7/0	08	Focus "2006 fellow "\$40, postd North Assis Pedia	sed on RBL translational research  Merck UNCF postdoctoral
Rodrigo Martins	Federal University of Rio, Brazil	8/05-12/	/08	Studie	es N-myc in retinal development tant Professor, Federal University
Itsuki Ajioka	Keio University, Japan	9/05-2/0	9	Studie "2008 Assis Medic Keio I Tokyo Assoc	es role of chromatin in retinal dev. B APSN Young Investigator Award" tant Professor, Center for Integrated cal Research, University School of Medicine, o, Japan ciate Professor (10/09), Tokyo cal Dental University (TMD), Tokyo,

Samantha Cicero	Case Western Reserve University	2/06-present	Study Rb and p130 in retinal development "2007 Recipient of Hartwell Foundation postdoctoral fellowship" Medical Science Liaison II, Boehringer-Ingelheim, Dallas, TX
Chie-Schin Shih	George Washington University	12/05-6/20/07	Gene Therapy and Translational Research Assistant Professor, Riley Hospital for Children, Indiana University School of Medicine, Indianapolis, IN
Damon Reed	Case Western Reserve University	7/06-6/08	Drug Discovery and Translational Research Assistant Professor, All Children's Hospital, Moffitt Cancer Center, FL
Justina D. McEvoy Ying Shen	Brown University University of Tennessee	9/07 – present 7/08 – 4/10	Rb in retinal development MDMX Inhibitor HTS Staff Scientist, Regeneron Pharmaceuticals, Inc. Tarrytown, NY
Sara Federico	Virginia Commonwealth University Medical College of Virginia	7/08 – 7/11	Retinoblastoma Preclinical Studies Assistant Member, Oncology, St. Jude Children's Research Hospital
Claudia Benavente	University of Arizona	1/09 - present	The role of E2F Family in retinal development
Jacqueline Flores- Otero	Rutgers University	4/09 - present	Mechanism of retinoblastoma metastasis Institute of Neurobiology, San Juan, PR Assistant Professor at the University of Puerto Rico
Daniel Hiler	Bowling Green State University	8/09 - present	Reprogramming neuronal fate in the retina
Denise Davis	Yale University	10/09 - present	Neuronal plasticity in the developing retina
Rachel Brennan	Johns Hopkins University	8/09 - present	Translational research in pediatric solid malignancies Assistant Member, Oncology, St. Jude Children's Research Hospital
Jennifer Stanke	Ohio State University	10/09 - present	Preclinical models of neuroblastoma
Kristen Finch Elizabeth Stewart	University of Illinois Southern Illinois	4/11 – present 7/11 – present	MDMX Inhibitor
Elizabeth Stewart	University School of Medicine	7711 – present	Translational research in pediatric solid malignancies
Lyra Griffiths	Emory School of Medicine	11/11- present	Genome instability in Retinoblastoma
David "Ross" Goshorn	University of South Carolina School of Medicine	7/12 – present	Translational research in Ewing Sarcoma
Issam Al Diri	University of Utah	1/13 - present	Epigenetic mechanisms during retinal development

WPC(vg) 04/23/2014

# Michael A. Dyer CV Summary (2014)

Michael Dyer received his bachelor's degree with honors from UCLA in Microbiology and Molecular Genetics. For his doctoral training, Dr. Dyer went to Harvard University where he studied globin gene switching during hematopoiesis with Dr. Margaret Baron. After completing his degree, he moved to Harvard Medical School for a postdoctoral fellowship with Dr. Connie Cepko. In Connie's lab he became interested in the regulation of retinal progenitor cell proliferation during neurogenesis. In 2002, Dr. Dyer was recruited to the department of Developmental Neurobiology at St. Jude Children's Research Hospital. At St. Jude, he expanded his interest in neural progenitor cell proliferation to include cancer biology, evolutionary biology and stem cell biology. In 2005, he was promoted to Associate Member and in 2008 he was promoted to Member at St. Jude. He has received numerous awards since joining the faculty at St. Jude including being named a Pew Scholar, the Cogan Award Recipient and a Howard Hughes Medical Institute Early Career Scientist. In 2009, Dr. Dyer was named co-leader of the Developmental Biology and Solid Tumor Program in the NCI designated Comprehensive Cancer Center at St. Jude Children's Research Hospital and in 2011 he was named head of the Division of Developmental Biology. In his role as co-leader of the Developmental Biology and Solid Tumor Program, Dr. Dyer has led the genomic efforts focused on pediatric solid tumors as part of the Pediatric Cancer Genome Project. In 2013 he became an investigator of the Howard Hughes Medical Institute.