

# CURRICULUM VITAE

Ruifeng Guo, MD PhD

Current Position: Dermatopathology Fellow, Mayo Clinic

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## PART I: General Information

### Education:

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| 2009 | PhD in Molecular Carcinogenesis and Molecular Pathology, the University of Texas Graduate School of Biomedical Sciences at Houston and MD Anderson Cancer Center |
| 2003 | Master in Physician Scientist Training Program - Internal Medicine: Gastroenterology and Oncology, College of Medicine of Zhengzhou University, Zhengzhou, China |
| 2000 | Bachelor of Medicine, Henan Medical University, Zhengzhou, China   |

### Post Graduate Training:

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| 07/2015-06/2016 | Dermatopathology Fellowship, Department of Dermatology, Mayo Clinic, Rochester, MN   |
| 07/2014-06/2015 | Surgical Pathology Fellowship, Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, MN   |
| 07/2013-06/2014 | Chief Resident, Department of Pathology, the University of Oklahoma Health Sciences Center, Oklahoma City, OK  |
| 07/2010-06/2014 | Resident, Department of Pathology, the University of Oklahoma Health Sciences Center, Oklahoma City, OK  |
| 01/2010-06/2010 | Postdoctoral Research Fellowship, the University of Texas MD Anderson Cancer Center, Science Park Research Division and Department of Carcinogenesis, Smithville, TX |

### Licensure and Certification:

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|--------------|--|
| 2015-2016    | Board Eligible in Dermatopathology   |
| 2014-present | Board Certification in Anatomic Pathology and Clinical Pathology, American Board of Pathology  |
| 2009         | ECFMG Certificate, No: 0-742-813-9   |
| 2010-2014    | Medical Doctor Unrestricted License, Oklahoma State Board of Medical Licensure and Supervision |
| 2014-present | License to Practice Medicine and Surgery, Minnesota Board of Medical Practice                  |

### Professional Societies:

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|--------------|---|
| 2010-present | Sigma XI, Full member   |
| 2005-present | American Association for Cancer Research, Associate member          |
| 2010-present | College of American Pathologists, Member                            |
| 2010-present | American Society for Clinical Pathology, Resident Member            |
| 2012-present | United States and Canadian Academy of Pathology, Member in Training |

### **Editorial Boards and Journal Review:**

- 2010-present *Ad-hoc* reviewer, Molecular Carcinogenesis  
2010-present Associate editor, the Diseases of the Esophagus  
2012-present Invited Reviewer, Biochimie  
2012-present Invited Reviewer, Journal of Cutaneous Pathology  
2012-present Invited Reviewer, Pathology - Research and Practice  
2012-present Invited Reviewer, Journal of Otolaryngology & Rhinology

### **Honors and Awards:**

- 2014 Parker-Heartland Award for Excellence in Pathology Graduate Medical Education, in Recognition of Outstanding Performance in Anatomic Pathology, Department of Pathology, University of Oklahoma Health Sciences Center  
2014 William P. Illig Award for Outstanding Resident Research, Department of Pathology, University of Oklahoma Health Sciences Center  
2011 Mentorship Award, American Society of Dermatopathology.  
2009 First Prize, Poster presentation in Departmental Graduate Students Retreat, Department of Carcinogenesis, University of Texas MD Anderson Cancer Center  
2007 First Prize, Platform Presentation in Departmental Graduate Students Retreat, Department of Carcinogenesis, University of Texas MD Anderson Cancer Center  
2000- 2003 Scholarship for Graduate Student, College of Medicine, Zhengzhou University  
1999 Medical Student of Excellence Honor, Henan Medical University  
1999 First Scholarship, Henan Medical University  
1996 First Scholarship, Henan Medical University  
1995 Second Scholarship, Henan Medical University

### **Teaching Experience:**

- 07/2015 – present Basic dermatopathology didactics and dermatopathology unknown conferences for the dermatology residents, Department of Dermatology, Mayo Clinic, Rochester, MN  
07/2012 Surgical pathology supervisor for the junior residents, Department of Pathology, the University of Oklahoma Health Sciences Center, Oklahoma City, OK  
03/2001 – 07/2001 Teaching assistant in Basic Pathology, College of Medicine, Zhengzhou University, Zhengzhou, China.

## **PART II: Academic Activity and Bibliography**

### **Research Projects as Principle Investigator or Major Investigator:**

- 2015-2016 **Fluorescence in situ hybridization predictive accuracy in atypical melanocytic proliferations (AMP), melanoma outcomes, and novel biomarker evaluation study**  
Department of Dermatology, Mayo Clinic Rochester  
2015-2016 **Differentiating squamous cell carcinoma and pseudoepitheliomatous hyperplasia on skin biopsies**  
Department of Dermatology, Mayo Clinic Rochester  
2015-2016 **Cutaneous manifestations of Sjögren's Syndrome**

2014-2016	Department of Dermatology, Mayo Clinic Rochester <b>Eight-probe fluorescence in situ hybridization study in 516 cases of ambiguous melanocytic lesions</b>
2014-2016	Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester <b>Re-evaluation of the schemes of sentinel lymph node staging in melanoma.</b>
2014-2015	Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester <b>Capillary hemangioma of nasal type: a clinicopathologic study</b>
2014-2015	Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester <b>Additional KRAS, NRAS and BRAF mutations revealed by next generation sequencing cancer gene panel: Necessity of comprehensive mutation detection in scrutinizing colorectal cancer candidates for epidermal growth factor receptor (EGFR) targeted therapy</b>
2011-2014	Department of Laboratory Medicine and Pathology, Mayo Clinic Rochester <b>Array based comparative genomic hybridization analysis of deep penetrating nevus and clinicopathological correlation</b> Departments of Pathology and Dermatology, University of Oklahoma Health Sciences Center
2010-2014	<b>Application of melanoma stem cell markers in clinical diagnosis and prognosis evaluation. (OUHSC Pathology Departmental Research Grant)</b> Department of Pathology, University of Oklahoma Health Sciences Center
2004-2010	<b>E2F1's response to UV induced DNA damage. (National Institute of Health RO1 Grant)</b> The University of Texas MD Anderson Cancer Center Science Park Research Division
2003-2004	<b>Regulation of TSC2 subcellular localization and its effects on tumor development. (National Institute of Health RO1 Grant)</b> The University of Texas MD Anderson Cancer Center Science Park Research Division
2002-2003	<b>Association study on thymidylate synthase promoter and methylenetetrahydrofolate reductase polymorphisms, and genetic susceptibility to esophageal and gastric cardiac cancer in a Chinese population at high incidence area.</b> Laboratory for Cancer Research, College of Medicine, Zhengzhou University, China.

**Representative Original Articles-Published and Accepted:**

1. **Guo R**, Folpe AL. Extensively myxoid and hyalinized sinonasal capillary hemangiomas: a clinicopathologic study of 16 cases of a distinctive and potentially confusing hemangioma variant. American Journal of Surgical Pathology. 2015 Nov;39(11):1584-1590
2. **Guo R**, Gavino AC. Angiolymphoid hyperplasia with eosinophilia. Archives of Pathology and Laboratory Medicine, 2015 May;139(5):683-686
3. Jia R, **Guo R**, Liu G, Yuan X, Dong C, Shan T, Yuan X, Zhang Y, Tai EW, Feng X, Gao S. Evaluation of Combined Argon Plasma Coagulation and Savary Bougienage for the Relief of Anastomotic-Stenosis after Esophageal Squamous Cancer Surgery. Diagnostic Surgery, 2015 Jan 7; 31(6):415-421
4. **Guo R**, Fierro-Fine A, Goddard L, Russell M, Chen J, Liu CZ, Fung KM, Hassell LA. Increased Expression of Melanoma Stem Cell Marker CD271 in Metastatic Melanoma to the Brain. International Journal of Clinical and Experimental Pathology, 2014 Dec 1;7(12):8947-8951

5. Magro CM, Abraham RM, **Guo R**, Li S, Wang X, Proper S, Crowson AN, Mihm M. Deep penetrating nevus-like borderline tumors: A unique subset of ambiguous melanocytic tumors with malignant potential and normal cytogenetics. *European Journal of Dermatology*, 2014 Sep-Oct;24(5):594-602
6. **Guo R**, Wang X, Chen J, Gillies EM, Fung KM, Li S, and Hassell LA. Comparative genomic hybridization in a case of melanoma that loses expression of S100, HMB45, Melan A and tyrosinase in metastasis. *International Journal of Clinical and Experimental Pathology*, 2013 Dec 15;7(1):468-473
7. **Guo R**, Franco-Palacios M, Russell M, Goddard L, Gillies EM, Hassell LA, Fung KM. Microphthalmia Transcription Factor (MITF) as a diagnostic marker for metastatic melanomas negative for other melanoma markers. *International Journal of Clinical and Experimental Pathology*, 2013 Jul; 6(8):1658-1664
8. **Guo R**, Metcalf S and Crowson AN. Sinonasal non-keratinizing squamous cell carcinoma with nasal skin extension as the initial presentation. *Journal of Cutaneous Pathology*, 2012 Aug; 39(8):791-794
9. **Guo R**, Chen J, Mitchell DL, Johnson DG. GCN5 and E2F1 stimulate nucleotide excision repair by promoting H3K9 Acetylation at sites of damage. *Nucleic Acids Research*. 2011 Mar; 39(4):1390-1397
10. **Guo R**, Chen J, Zhu F, Berton TR, Biswas, AK, Mitchell DL, Johnson DG. E2F1 localizes to sites of UV-induced DNA damage to enhance nucleotide excision repair. *Journal Biological Chemistry*. 2010 Jun 18; 285(25):19308-19315
11. Chen J, Zhu F, Weaks RL, Biswas AK, **Guo R**, Li Y, Johnson DG. E2F1 promotes the recruitment of DNA repair factors to sites of DNA double-strand breaks. *Cell Cycle*. 2011 Apr 15; 10(8):1287-1294
12. Jiang Y, Wang X, Bao S, **Guo R**, Johnson DG, Shen X, Li L. INO80 chromatin remodeling complex promotes the removal of UV lesions by the nucleotide excision repair pathway. *Proceedings of the National Academy of Sciences USA*. 2010 Oct 5; 107(40):17274-17279
13. Cai SL, Tee AR, Short JD, Bergeron JM, Kim J, Shen J, **Guo R**, Johnson CL, Kiguchi K, Walker CL. Activity of TSC2 is inhibited by AKT-mediated phosphorylation and membrane partitioning. *Journal of Cell Biology*. 2006 Apr 24; 173(2):279-289
14. Berton TR, Mitchell DL, **Guo R**, Johnson DG. Regulation of epidermal apoptosis and DNA repair by E2F1 in response to ultraviolet B radiation. *Oncogene*. 2005 Apr 7; 24(15):2449-2460
15. Wang LD, **Guo R**, Fan ZM, He X, Gao SS, Guo HQ, Matsuo K, Yin LM, Li JL. Association of methylenetetrahydrofolate reductase and thymidylate synthase promoter polymorphisms with genetic susceptibility to esophageal and cardia cancer in a Chinese high-risk population. *Diseases of the Esophagus*. 2005; 18(3):177-184
16. Gao SG, Wang LD, Fan ZM, Li JL, He X, **Guo R**, Xie DL, He XW, Gao SS, Guo HQ, Wang JK, Feng XS, Ma BG. Histochemical studies on intestinal metaplasia adjacent to gastric cardia adenocarcinoma in subjects at high-incidence area in Henan, north China. *World J Gastroenterol*. 2005 Aug 14; 11(30):4634-4637

#### **Original Articles in Submission and Preparation:**

1. **Guo R**, Wang X, Chou MM, Yan A, Wenger DE, Al-Ibraheemi A, Molavi DW, Aboulafia A, Jin L, Jenkins RB, Westendorf JJ, Dong J, Oliveira AM. *PPP6R3-USP6* Amplification: Novel Oncogenic Mechanism in Malignant Nodular Fasciitis. (Submitted to the *Genes, Chromosomes and Cancer*)
2. **Guo R**, Ji Y, Voss JS, Winters JL, Grothey A, McWilliams RR, Markovic SN, Rumilla KM, Kerr SE, Halling KC, Kipp BR. Targeted next generation sequencing frequently changes

therapy decisions for advanced colorectal patients. (Completed)

3. **Guo R**, Wang X, Hu X, Xu W, Li S, Magro CM, Crowson AN. Low frequency of cytogenetic abnormality, BRAF and NRAS mutations in both deep penetrating nevus and deep penetrating nevus-like borderline tumor. (Submitted to British Journal of Dermatology)
4. **Guo R**, Wang X, Li S, Rodriguez-Waitkus P, Eldin KW, Diwan AH, Prieto VG. Microarray comparative genomic hybridization analysis of pigmented epithelioid melanocytoma. (Submitted to Journal of Cutaneous Pathology)
5. **Guo R**, Varghese G, Wenson S, Magro CM. Pityriasis lichenoides-like drug reaction: a clinical histopathologic study of 5 cases. (2013, manuscript completed)

#### **Book Chapter:**

2013 **Guo R**. Chapter 13: Biology of Melanoma., in: Magro CM, Crowson AN, Miller A, Mihm MC, et al: The Melanocytic Proliferations (second edition)., 2014, Elsevier

#### **Conference Posters as Principal Presenter:**

- 2016 Platform presentation (scheduled) at the “United States and Canadian Academy of Pathology Annual Meeting 2016”, Seattle, WA  
Title: The Expanded Eight-Probe Melanoma Fluorescence In Situ Hybridization (FISH) Assay as an Ancillary Tool in Diagnosing Ambiguous Melanocytic Lesions: An Updated Clinical, Pathological and Cytogenetic Review of 416 Cases.
- 2015 Poster presentation at the “United States and Canadian Academy of Pathology Annual Meeting 2015”, Boston, MA  
Title: Capillary Hemangioma of Nasal Type: Clinicopathological Study of 13 Cases of a Distinctive and Potentially Confusing Hemangioma Variant.
- 2015 Poster presentation at the “United States and Canadian Academy of Pathology Annual Meeting 2015”, Boston, MA  
Title: Additional KRAS, NRAS and BRAF Mutations Revealed by Next Generation Sequencing Cancer Gene Panel: Necessity of Comprehensive Mutation Detection for Scrutinizing Colorectal Cancer Candidates for Epidermal Growth Factor Receptor (EGFR) Targeted Therapy.
- 2014 Poster presentation at the “United States and Canadian Academy of Pathology Annual Meeting 2014”, San Diego, CA  
Title: Increased Expression of Melanoma Stem Cell Marker CD271 in Metastatic Melanoma to the Brain.
- 2013 Mentorship Award Presentation, “American Society of Dermatopathology Annual Meeting 2013”, Washington, D.C.  
Title: Microarray comparative genomic hybridization analysis of pigmented epithelioid melanocytoma.  
(Mentor: Victor G Prieto, MD PhD; Co- Sponsor: Abdul Hafeez Diwan, MD)
- 2013 Poster presentation at the “American Society of Dermatopathology Annual Meeting 2013”, Washington, D.C.  
Title: Microphthalmia Transcription Factor (MITF) as a diagnostic marker for metastatic melanomas negative for other melanoma markers
- 2013 Poster presentation at the “United States and Canadian Academy of Pathology Annual Meeting 2013”, Baltimore, MD  
Title: Low frequency of cytogenetic abnormality, BRAF and NRAS mutations in borderline melanocytic tumors arising in deep penetrating nevi.
- 2012 Poster presentation at the “American Society of Dermatopathology Annual Meeting 2012”, Chicago, IL

- Title: Sinonasal non-keratinizing squamous cell carcinoma with nasal skin extension as the initial presentation.
- 2012 Poster presentation at the “American Society of Dermatopathology Annual Meeting 2012”, Chicago, IL
- Title: Pityriasis lichenoides-like drug reaction: a clinical histopathological study of 5 cases.
- 2011 Poster presentation at the “American Society of Dermatopathology Annual Meeting 2011”, Seattle, WA
- Title: Combined nevus sebaceous, melanocytic nevi, and syringocystadenoma papilliferum in a patient with epidermal nevus syndrome and hypophosphatemic vitamin D-resistant rickets.
- 2011 Poster presentation at the “College of American Pathologists Annual Meeting 2011”, Grapevine, TX
- Title: Two cases of high-grade extraskeletal osteosarcoma from anterior thigh and scalp.
- 2010 Poster presentation at the “Gordon Research Conference: DNA damage, mutation and cancer 2010”, Taos, NM
- Title: E2F1 stimulates nucleotide excision repair by recruiting GCN5 at the sites of DNA damage.
- 2009 Poster presentation at the “Keystone Symposium on Molecular and Cellular Biology: Genomic Instability and DNA Repair 2009”, Ventura Beach, CA
- Title: E2F1 recruits GCN5 to sites of UV-induced DNA damage and stimulates repair by increasing chromatin accessibility.
- 2008 Poster presentation at the “Annual meeting of American Association of Cancer Research 2008”, San Diego, CA
- Title: E2F1 as a chromatin accessibility factor for DNA damage.
- 2007 Poster presentation at the “International Skin Carcinogenesis Conference”, Austin, TX
- Title: E2F1 and GCN5 facilitate the recruitment of nucleotide excision repair factors to direct roles of E2F1 and GCN5 in the repair of UV-induced DNA damage.
- 2006 Poster presentation in the international meeting “Annual meeting of American Association of Cancer Research 2006”, Washington, D.C.
- Title: E2F1’s response to UV induced DNA damage.
- 2004 Poster presentation in the international meeting “Cell Cycle and Cancer: Pathways and Therapies (Sponsored by American Association of Cancer Research)”, Fort Lauderdale, FL
- Title: Regulation of epidermal apoptosis and DNA repair by E2F1 in response to ultraviolet B radiation.

**Invited Seminar and Platform Presentation:**

- 2008 **Topic: Transcription Factor E2F1 Acts as a Chromatin Accessibility Factor for DNA Repair.**  
National Institute of Health sponsored DNA Repair Seminar Videoconference Series (<http://videocast.nih.gov/summary.asp?Live=6541>)
- 2007 **Topic: E2F1 functions as a chromatin accessibility factor for nucleotide excision repair.**  
National meeting for DNA damage repair: “Lost Pine Conference”. Smithville, Texas.