

GAO GUO, Ph.D.

Curriculum Vitae

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Education

Nov. 2011: **Free University of Berlin**, Germany, Ph.D. in Biochemistry.

Research Experience

Sep. 2018–Present: Instructor, Department of Neurology and Neurotherapeutics, UTSW.

Research project: EGFR signaling in glioblastoma invasion and chemoresistance.
Supervisor: Dr. Aryn Habib

Aug. 2014–Aug. 2018: Postdoctoral fellow, Department of Neurology and Neurotherapeutics, UTSW.

Research project: Bimodal EGFR signaling in human glioblastoma.
Supervisor: Dr. Aryn Habib

Jun. 2012–May 2014: Postdoctoral fellow, UCLA School of Dentistry.

Research project: NF-kappa B signaling in invasive growth of tongue cancer.
Supervisor: Dr. Cun-Yu Wang

Dec. 2005–May 2012: Ph.D. student ,
Institute of Medical Genetics and Human Genetics, Charité University Hospital, Berlin,
Germany.

Research project: Understanding of molecular pathogenesis of aortic aneurysm in Marfan syndrome.
Ph. D. Supervisor: Dr. Peter N. Robinson

Jun. 2002–May 2005: Medical doctoral student, Department of Oral and Maxillofacial Surgery, Charité University Hospital, Berlin, Germany.

Research project: Postoperative clinical examination for the patients with implant-supported auricular prosthesis.
D.D.S. Supervisor: Dr. Martin Klein

Jun. 1999–Jul. 2001: Medical master student, Department of Oral and Maxillofacial Surgery, Shanghai 9th People's Hospital, Shanghai, China.

Research project: Evaluation of the effect of a new radiation technique for parotid sparing in patients with head and neck cancers.
Supervisor: Dr. Zhonghe Wang

Awards and Distinguishes

Poster selected for e-Talk in SNO Annual Scientific Meeting, San Francisco, November, 2017.

Invited speaker on Annual Conference of the German Genetics Society, March 2011.

Free University Scholarship for PhD student, December, 2005.

Colgate scholarship for Best Student of the year, December, 1998.

Skills

Languages: *Native Chinese, English and German, both fluent in speaking, reading and writing.*

Computer: *Word, PowerPoint, Excel, Latex, R, Inkscape, Photoshop.*

Conference presentations

Poster Presentation: "Efficacy of EGFR plus TNF inhibition in a preclinical model of glioblastoma." SNO Annual Scientific Meeting, Phoenix, AZ, November 2019.

Oral Presentation: "Activation of FGF signaling pathway confers resistance to EGFR inhibition in GBM" SNO (Society for Neuro-Oncology) Annual Scientific Meeting, New Orleans, LA, November 2018.

Poster Presentation (e-Talk): "Primary resistance to EGFR inhibition in glioblastoma is mediated by a TNF-JNK-Axl-ERK signaling axis." SNO Annual Scientific Meeting, San Francisco, CA, November 2017.

Oral Presentation: "Targeting of GxxPG Fragments as a Novel Therapeutic Strategy For Thoracic Aortic Aneurysm in a Mouse Model of Marfan Syndrome." FAD (Fighting aneurismal disease) Annual Scientific Meeting, Istanbul, Turkey, May 2011.

Oral Presentation: "Antagonism of GxxPG Fragments as a Novel Therapeutic Option For Thoracic Aortic Aneurysm in a Mouse Model of Marfan Syndrome." Annual Conference of the German Genetics Society, Regensburg, Germany, March 2011.

Poster Presentation: "Retrospective study of the implant-retained auricular prosthesis." International Student Congress of Medical Science, Groningen, Netherlands, June 2004.

Publications

1. Gong K, Guo G, Panchani N, Bender ME, Gerber DE, Minna JD, Fattah F, Gao B, Peyton M, Kernstine K, Mukherjee B, Sandeep Burma S, Chiang C, Zhang S, Sathe AA, Xing C, Dao KH14, Zhao D, Akbay EA, Habib AA. EGFR inhibition triggers an adaptive response by co-opting antiviral signaling pathways in lung cancer. *Nature Cancer* 2020 Accepted.
2. Guo G, Gong K, Puliappadamba VT, Panchani N, Pan E, Mukherjee B, Damanwalla Z, Bharia S, Hatanpaa KJ, Gerber DE, Mickey BE, Patel TR, Sarkaria JN, Zhao D, Burma S, Habib AA. Efficacy of EGFR plus TNF inhibition in a preclinical model of temozolomide-resistant glioblastoma. *Neuro Oncol.* 2019; 21(12):1529-1539.

3. Gong K, **Guo G***, Gerber DE, Gao B, Peyton M, Huang C, Minna JD, Hatanpaa KJ, Kernstine K, Cai L, Xie Y, Zhu H, Fattah FJ, Zhang S, Takahashi M, Mukherjee B, Burma S, Dowell J, Dao K, Papadimitrakopoulou VA, Olivas V, Bivona TG, Zhao D, Habib AA. TNF-driven adaptive response mediates resistance to EGFR inhibition in lung cancer. *J Clin Invest.* 2018;128(6):2500-2518. *Contributed equally.
4. **Guo G**, Gong K, Ali S, Ali N, Shallwani S, Hatanpaa KJ, Pan E, Mickey B, Burma S, Wang DH, Kesari S, Sarkaria JN, Zhao D, Habib AA. TNF-JNK-Ax1-ERK signaling axis mediates primary resistance to EGFR inhibition in glioblastoma. *Nat Neuroscience* 2017 ; 20(8):1074-1084.
5. **Guo G**, Narayan RN, Horton LN, Patel TR, Habib AA. The Role of EGFR-Met Interactions in the Pathogenesis of Glioblastoma and Resistance to Treatment. *Current cancer drug targets* 2017; 17 (3), 297-302.
6. Ramadoss S, **Guo G***, Wang CY. Lysine demethylase KDM3A regulates breast cancer cell invasion and apoptosis by targeting histone and the non-histone protein p53. *Oncogene* 2017;36(1), 47-59. * Contributed equally.
7. **Guo G**, Gong K, Wohlfeld B, Hatanpaa KJ, Zhao D, Habib AA. Ligand-independent EGFR signaling. *Cancer Research* 2015;75(17):3436-41. (Review)
8. Chakraborty S, Li L, Puliappadamba VT, **Guo G**, Hatanpaa KJ, Mickey B, Souza RF, Vo P, Herz J, Chen MR, Boothman DA, Pandita TK, Wang DH, Sen GC, Habib AA. Constitutive and ligand-induced EGFR signalling triggers distinct and mutually exclusive downstream signalling networks. *Nature communications* 2014;15(5):5811.
9. Vanita V, **Guo G**, Singh D, Ott CE, Robinson PN. Differential effect of cataract-associated mutations in MAF on transactivation of MAF target genes. *Molecular and cellular biochemistry* 2014; 396 (1-2): 137-145.
10. Messadi DV, Younai FS, Liu HH, **Guo G**, Wang CY. The clinical effectiveness of reflectance optical spectroscopy for the in vivo diagnosis of oral lesions. *International journal of oral science* 2014; 6(3) :162-167.
11. **Guo G**, Rödelsperger C, Digweed M, Robinson PN. Regulation of Fibrillin-1 Gene Expression by Sp1. *Gene* 2013;527(2):448-55.
12. **Guo G**, Ott CE, Grünhagen J, Muñoz-García B, Pletschacher A, Kallenbach K, von Kodolitsch Y, Robinson PN. Indomethacin Prevents the Progression of Thoracic Aortic Aneurysm in Marfan Syndrome Mice. *Aorta* 2013;1:5-12, Inaugural issue.
13. **Guo G**, Muñoz-García B, Ott CE, Grünhagen J, Mousa SA, Pletschacher A, von Kodolitsch Y, Knaus P, Robinson PN. Antagonism of GxxPG-fragments ameliorates manifestations of aortic disease in Marfan syndrome mice. *Hum Mol Genet.* 2013;22(3):433-43.

14. **Guo G**, Gehle P, Doelken S, Martin-Ventura JL, von Kodolitsch Y, Hetzer R, Robinson PN. Induction of macrophage chemotaxis by aortic extracts from patients with Marfan syndrome is related to elastin binding protein. *PLoS ONE*. 2011;6(5):e20138.
15. Türkmen S, **Guo G***, Garshasbi M, Hoffmann K, Alshalah AJ, Mischung C, Kuss A, Humphrey N, Mundlos S, Robinson PN. CA8 mutations cause a novel syndrome characterized by ataxia and mild mental retardation with predisposition to quadrupedal gait. *PLoS Genet*. 2009;5(5):e1000487. *Contributed equally
16. **Guo G**, Schwedtner O, Klein M. Retrospective Study of implant-retained auricular prosthesis. *Int J Oral Maxillofac Implants*. 2008;23(3):539-43.
17. **Guo G**, Bauer S, Hecht J, Schulz MH, Busche A, Robinson PN. A Short ultraconserved sequence drives transcription from an alternate FBN1 promoter. *Int J Biochem Cell Biol*. 2008;40(4):638-50.
18. **Guo G**, Booms P, Halushka M, Dietz HC, Ney A, Stricker S, Hecht J, Mundlos S, Robinson PN. Induction of macrophage chemotaxis by aortic extracts of the mgR Marfan mouse model and a GxxPG-containing fibrillin-1 fragment. *Circulation*. 2006;114(17):1855-62.
19. Horbelt D, **Guo G**, Robinson PN, Knaus P. Quantitative analysis of TGFBR2 mutations in Marfan-syndrome-related disorders suggests a correlation between phenotypic severity and Smad signaling activity. *J Cell Sci*. 2010;123(24):4340-50.
20. Roedelsperger C, **Guo G**, Pletschacher A, Köhler S, Bauer S, Schulz MH, Robinson PN. Integrative analysis of genomic, functional and protein interaction data predicts long-range enhancer-target gene interactions. *Nucl Acids Res*. 2010;39(7):2492-502.
21. Ott CE, Grünhagen J, Jäger M, Horbelt D, Schwill S, Kallenbach K, **Guo G**, et al. Micro-RNAs differentially expressed in postnatal aortic development downregulate elastin via 3' UTR and coding-sequence binding sites. *PLoS ONE*. 2011;31;6(1):e16250.
22. Robinson PN, Arteaga-Solis E, Baldock C, Collod-Broud G, Booms P, De Paepe A, Dietz HC, **Guo G**, et al. The molecular genetics of Marfan syndrome and related disorders. *J Med Genet*. 2006;43(10):769-87.
23. Booms P, Ney A, Barthel F, Moroy G, Counsell D, Gille C, **Guo G**, et al. A fibrillin-1-fragment containing the elastin-binding-protein GxxPG consensus sequence upregulates matrix metalloproteinase-1: biochemical and computational analysis. *J Mol Cell Cardiol*. 2006;40(2):234-46.
24. Ney A, Booms P, Epple G, Mörgelin M, **Guo G**, et al.. Calcium-dependent self-association of the C-type lectin domain of versican. *Int J Biochem Cell Biol*. 2006;38(1):23-9.
25. Wang ZH, **Guo G**. Reduction of postradiation xerostomia in patient with head and neck cancer by superior technology using 3D-RTPS. *Journal of practical stomatology* 2002;18(6):488-90.