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科学研究方向 胶质瘤干细胞微环境异质性在胶质瘤干细胞微环境构建，维持及其在肿瘤演进中的功能

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简介

胶质母细胞瘤(GBM)是恶性程度和致死率最高的中枢神经系统肿瘤。GBM内的胶质瘤干细胞（glioblastoma stem cell，GSC）是造成高恶性程度的关键，GSCs是存在于肿瘤内极少数具有自我更新功能、驱使肿瘤形成的一类细胞。GSCs可通过促进血管的发生和募集免疫相关细胞来构建微环境，为自身提供自我更新、增殖、多向分化和起始肿瘤形成的能力。GSCs与分化肿瘤细胞相比，表现出对传统放疗和化疗抵抗的特征，同时能够抑制GBM中抗肿瘤的免疫反应。在GSCs微环境异质性中关于代谢和蛋白修饰在其中的功能和调节机制目前为止还不是太清楚。本课题组主要集中于从细胞代谢，蛋白翻译后修饰，分子，细胞，动物，病人层面深入

研究代谢和蛋白翻译后修饰关系，并探讨其功能及其调节机制，结合原代肿瘤干细胞，动物模型，病人组织来探讨代谢和蛋白翻译后修饰在胶质瘤干细胞中的功能以及与病人预后的关系。阐释清楚GSCs微环境异质性中代谢，蛋白翻译后修饰的调控机制，有针对性地开展针对GSCs靶向精准治疗研究，来探究精准治疗在GBM治疗中的意义。

教育背景及工作经历

1998.09-2002.07 安徽科技学院 本科

2005.09-2008.07 南京农业大学 硕士

2008.09-2013.08 南京大学 博士

2014.11-2017.07 克利夫兰医学中心 博士后

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近五年代表性论文、专利

1. **Xiuxing Wang**, Briana C. Prager , Qiulian Wu, Leo J. Y. Kim, Ryan C. Gimple, Yu Shi, Kailin Yang, Andrew Morton, Wenchao Zhou, Zhe Zhu,Elisabeth Anne Adanma Obara,Tyler E. Miller, Anne Song, Sisi Lai, Christopher G. Hubert, Xun Jin, Zhi Huang, Xiaoguang Fang, Deobrat Dixit, Weiwei Tao, Kui Zhai, Cong Chen, Zhen Dong, Guoxin Zhang, Stephen M. Dombrowski, Petra Hamerlik,Stephen C. Mack, Shideng Bao, Jeremy N. Rich: Reciprocal signaling between Glioblastoma Stem Cells and Differentiated Tumor Cells Promotes Malignant Progression. Cell Stem Cell 04/2018.

2. **Xiuxing Wang**#, Kailin Yang#, Qi Xie, Qiulian Wu, Stephen C Mack, Yu Shi, Leo J Y Kim, Briana C Prager, William A Flavahan, Xiaojing Liu, Meromit Singer, Christopher G Hubert, Tyler E Miller, Wenchao Zhou, Zhi Huang, Xiaoguang Fang, Aviv Regev, Mario L Suv, Tae Hyun Hwang, Jason W Locasale, Shideng Bao, Jeremy N Rich*. Purine synthesis promotes maintenance of brain tumor initiating cells in glioma. Nature Neuroscience 03/2017.

3. **Xiuxing Wang**#, Kailin Yang#, Qiulian Wu, Leo J.Y. Kim, Andrew R. Morton, Ryan C. Gimple, Briana C. Prager, Yu Shi, Wenchao Zhou, Shruti Bhargava, Zhe Zhu, Li Jiang, Weiwei Tao, Zhixin Qiu, Linjie Zhao, Guoxing Zhang, Xiqing Li, Sameer Agnihotri, Paul S. Mischel, Stephen C. Mack, Shideng Bao, Jeremy N. Rich*. Targeting Pyrimidine Synthesis Accentuates Molecular Therapy Response in Glioblastoma Stem Cells. Science Translational Medicine, 08/2019 (Cover Story)

4. **Xiuxing Wang**, zhi huang, Qiulian Wu, Briana C Prager, Stephen C Mack, Kailin Yang, Leo J. Y. Kim, Ryan C Gimple, Yu Shi, Sisi Lai, Qi Xie, Tyler E. Miller, Christopher G Hubert, Anne Song, Zhen Dong, Wenchao Zhou, Xiaoguang Fang, Zhe Zhu, Vaidehi Mahadev, Shideng Bao, Jeremy N. Rich* MYC-Regulated Mevalonate Metabolism

Maintains Brain Tumor-Initiating Cells. Cancer Research 07/2017).

5. Stephen C. Mack#, Irtisha Singh#, **Xiuxing Wang#**, Rachel Hirsch, Quilian Wu, Jean A.Bernatchez, Zhe Zhu, Ryan C. Gimple, Leo J.Y. Kim, Andrew Morton, Sisi Lai, Zhixin Qiu, Rosie Villagomez, Briana C. Prager, Kelsey C. Bertrand, Clarence Mah, Wenchao Zhou, Christine Lee, Gene H. Barnett, Michael A. Vogelbaum, Andrew E. Sloan, Lukas Chavez, Shideng Bao, Peter C. Scacheri, Jair L. Siqueira-Neto, Charles Y. Lin2*, Jeremy N. Rich*. CHROMATIN LANDSCAPES REVEAL DEVELOPMENTALLY ENCODED TRANSCRIPTIONAL STATES THAT DEFINE GLIOBLASTOMA. Journal of Experimental Medicine, Co-first author，04/2019

6.Ryan Gimple, **Xiuxing Wang*** RAS: Striking at the Core of the Oncogenic Circuitry. Frontiers in Oncology, 08/2019.

7. **Xiu-Xing Wang**, Pu Ying, Fan Diao, Qiang Wang, Dan Ye, Chen Jiang, Ning Shen, Na Xu, Wei-Bo Chen, Shan-Shan Lai, Shan Jiang, Xiao-Li Miao, Jin Feng, Wei-Wei Tao, Ning-Wei Zhao, Bing Yao, Zhi-Peng Xu, Hai-Xiang Sun, Jian-Min Li, Jia-Hao Sha, Xing-Xu Huang, Bin Xue, Hong Tang, Xiang Gao*, Chao-Jun Li* Altered protein prenylation in Sertoli cells is associated with adult infertility resulting from childhood Mumps infection. Journal of Experimental Medicine 07/2013.

8. Andrew R. Morton, Nergiz Dogan-Artun, Zachary J. Faber, Graham MacLeod, Cynthia F. Bartels, Megan S. Piazza, Kevin C. Allan, Stephen C. Mack, **Xiuxing Wang**, Ryan C. Gimple, Qiulian Wu, Brian P. Rubin, Shashirekha Shetty, Stephane Angers, Peter B. Dirks, Richard C. Sallari, Mathieu Lupien, Jeremy N. Rich,* and Peter C. Scacheri* Functional Enhancers Shape Extrachromosomal Oncogene Amplifications. Cell, 11/2019.

9. Stephen C. Mack, Kristian W. Pajtler, Lukas Chavez, Konstantin Okonechnikov, Kelsey C. Bertrand, **Xiuxing Wang**, Serap Erkek, Alexander Federation, Anne Song, Christine Lee, Xin Wang, Laura McDonald, James J. Morrow, Alina Saiakhova, Patrick Sin-Chan, Qiulian Wu, Kulandaimanuvel Antony Michaelraj, Tyler E. Miller, Christopher G. Hubert, Marina Ryzhova, Livia Garzia, Laura Donovan, Stephen Dombrowski, Daniel C. Factor, Betty Luu, Claudia L. L. Valentim, Ryan C. Gimple, Andrew Morton, Leo Kim, Briana C. Prager, John J. Y. Lee, Xiaochong Wu, Jennifer Zuccaro, Yuan Thompson, Borja L. Holgado, Jüri Reimand, Susan Q. Ke, Adam Tropper, Sisi Lai, Senthuran Vijayarajah, Sylvia Doan, Vaidehi Mahadev, Ana Fernandez Miñan, Susanne N. Gröbner, Matthias Lienhard, Marc Zapatka, Zhiqin Huang, Kenneth D. Aldape, Angel M. Carcaboso, Peter J. Houghton, Stephen T. Keir, Till Milde, Hendrik Witt, Yan Li, Chao-Jun Li, Xiu-Wu Bian, David T. W. Jones, Ian Scott, Sheila K. Singh, Annie Huang, Peter B. Dirks, Eric Bouffet, James E. Bradner, Vijay Ramaswamy, Nada Jabado, James T. Rutka, Paul A. Northcott, Mathieu Lupien, Peter Lichter, Andrey Korshunov, Peter C. Scacheri, Stefan M. Pfister, Marcel Kool*, Michael D. Taylor*, Jeremy N. Rich* Therapeutic targeting of ependymoma as informed by oncogenic enhancer profiling. Nature 12/2017.

10. Xun Jin, Leo J Y Kim, Qiulian Wu, Lisa C Wallace, Briana C Prager, Tanwarat Sanvoranart, Ryan C Gimple, **Xiuxing Wang**, Stephen C Mack, Tyler E Miller, Ping Huang, Claudia L Valentim, Qi-gang Zhou, Jill S Barnholtz-Sloan, Shideng Bao, Andrew E Sloan, Jeremy N Rich*. Targeting glioma stem cells through combined BMI1 and EZH2 inhibition. Nature Medicine 10/2017.

11.Yu Shi, Olga A Guryanova, Wenchao Zhou, Chong Liu, Zhi Huang, Xiaoguang Fang, **Xiuxing Wang**, Cong Chen, Qiulian Wu, Zhicheng He, Wei Wang, Wei Zhang, Tao Jiang, Qing Liu, Yaping Chen, Wenying Wang, Jingjing Wu, Leo Kim, Ryan C Gimple, Hua Feng, Hsiang-Fu Kung, S Yu Jennifer, Jeremy N Rich, Yi-Fang Ping*, Xiu-Wu Bian*, Shideng Bao*. Ibrutinib Targets Glioblastoma Stem Cells by Disrupting BMX-mediated STAT3 Activation to Suppress Malignant Growth and Radioresistance. Science Translational Medicine. 2018.

12.Zhe Zhu, Matthew J. Gorman, Lisa D. McKenzie, Jiani N. Chai, Christopher G. Hubert, Briana C. Prager, Estefania Fernandez, Justin M. Richner, Rong Zhang, Chao Shan, **Xiuxing Wang**, Pei-Yong Shi, Michael S. Diamond*, Jeremy N. Rich*, Milan G. Chheda*. Zika virus has oncolytic activity against glioblastoma stem cells. Journal of Experimental Medicine 09/2017.

13.Ryan C Gimple, Reilly L. Kidwell, Leo Kim, Tengqian Sun, AnthonyD. Gromovsky, Qiulian Wu, Megan Wolf, Deguan Lv, Shruti Bhargava, Li Jiang, Briana C Prager, **Xiuxing Wang**, Qing Ye, Zhe Zhu, Guoxin Zhang, Zhen Dong, Linjie Zhao, Derrick Lee, Junfeng Bi, Andrew E. Sloan.Paul S. Mischel, Mark Brown, Hu Cang, Tao Huan, Stephen C. Mack, Qi Xie, Jeremy Rich*.Glioma Stem Cell Specific Super Enhancer Promotes Polyunsaturated Fatty Acid Synthesis to Support EGFR Signaling. Cancer Discovery, 06/2019.

14. Zhen Dong, Guoxin Zhang, Meng Qu, Ryan C. Gimple, Qiulian Wu, Zhixin Qiu, Briana C. Prager, **Xiuxing Wang**, Leo J.Y. Kim, Andrew R. Morton, Deobrat Dixit, Wenchao Zhou, Haidong Huang, Bin Li, Zhe Zhu, Shideng Bao, Stephen C. Mack, Lukas Chavez, Steve A. Kay, Jeremy N. Rich. Targeting Glioblastoma Stem Cells through Disruption of the Circadian Clock. Cancer Discovery, 08/2019.

15. Yu Shi, Yi-Fang Ping, Wenchao Zhou, Zhi-Cheng He, Cong Chen, Bai-Shi-Jiao Bian, Lin Zhang, Lu Chen, Xun Lan, Xian-Chao Zhang, Kai Zhou, Qing Liu, Hua Long, Ti-Wei Fu, Xiao-Ning Zhang, Mian-Fu Cao, Zhi Huang, Xiaoguang Fang, **Xiuxing Wang**, Hua Feng, Xiao-Hong Yao, Shi-Cang Yu, You-Hong Cui, Xia Zhang, Jeremy N. Rich, Shideng Bao*, Xiu-Wu Bian*.Tumour-associated macrophages secrete pleiotrophin to promote PTPRZ1 signalling in glioblastoma stem cells for tumour growth. Nature Communications 06/2017.

16. Jinkyu Jung, Leo J.Y. Kim, **Xiuxing Wang**, Qiulian Wu, Tanwarat Sanvoranart, Christopher G. Hubert, Briana C. Prager, Lisa C. Wallace, Xun Jin, Stephen C. Mack, Jeremy N. Rich*. Nicotinamide metabolism regulates glioblastoma stem cell maintenance. JCI Insight 05/2017.

17. Xiaoguang Fang, Wenchao Zhou, Qiulian Wu, Zhi Huang, Yu Shi, Kailin Yang, Cong Chen, Qi Xie, Stephen C. Mack, **Xiuxing Wang**, Angel M. Carcaboso, Andrew E. Sloan, Gaoliang Ouyang, Roger E. McLendon, Xiu-wu Bian, Jeremy N. Rich, Shideng Bao*. Deubiquitinase USP13 maintains glioblastoma stem cells by antagonizing FBXL14-mediated Myc ubiquitination. Journal of Experimental Medicine 12/2016.

18. Qi Xie, Qiulian Wu, Leo Kim, Tyler E. Miller, Brian B. Liau, Stephen C. Mack, Kailin Yang, Daniel C. Factor, Xiaoguang Fang, Zhi Huang, Wenchao Zhou, Kareem Alazem, **Xiuxing Wang**, Bradley E. Bernstein, Shideng Bao, Jeremy N. Rich*. RBPJ maintains brain tumor–initiating cells through CDK9-mediated transcriptional elongation. Journal of Clinical Investigation 06/2016.

19. Chen Jiang, Fan Diao, Yong-Juan Sang, Na Xu, Rui-Lou Zhu, **Xiu-Xing Wang**, Zhong Chen, Wei-Wei Tao, Bing Yao, Hai-Xiang Sun, Xing-Xu Huang, Bin Xue, Chao-Jun Li: GGPP-Mediated Protein Geranylgeranylation in Oocyte Is Essential for the Establishment of Oocyte-Granulosa Cell Communication and Primary-Secondary Follicle Transition in Mouse Ovary. PLoS Genetics 01/2017.

20. Fan Diao, Chen Jiang, **Xiu-Xing Wang**, Rui-Lou Zhu, Qiang Wang, Bing Yao, Chao-Jun Li: Alteration of protein prenylation promotes spermatogonial differentiation and exhausts spermatogonial stem cells in newborn mice. Scientific Reports 07/2016.

21. Weiwei Tao, Jing Wu, Bing-Xian Xie, Yuan-Yuan Zhao, Ning Shen, Shan Jiang, **Xiu-Xing Wang**, Na Xu, Chen Jiang, Shuai Chen, Xiang Gao, Bin Xue, Chao-Jun Li: Lipid-induced Muscle Insulin Resistance Is Mediated by GGPPS via Modulation of the RhoA/Rho Kinase Signaling Pathway. Journal of Biological Chemistry 06/2015.

22. Ning Shen, Shan Jiang, Jia-Ming Lu, Xiao Yu, Shan-Shan Lai, Jing-Zi Zhang, Jin-Long Zhang, Wei-Wei Tao, **Xiu-Xing Wang**, Na Xu, Bin Xue, Chao-Jun Li: The Constitutive Activation of Egr-1/C/EBPa Mediates the Development of Type 2 Diabetes Mellitus by Enhancing Hepatic Gluconeogenesis. American Journal of Pathology 11/2014.