

姓名：张万刚

性别：男

毕业院校：本科和硕士毕业于中国农业大学，
博士和博士后毕业于美国爱荷华州立大学



最高学位：博士

办公地址：国家肉品中心 A205

办公电话：025-84395341

电子邮箱：wangang.zhang@njau.edu.cn

研究方向：肉品加工与质量安全控制

个人简介：张万刚，教授，博士生导师，食品科学与工程系系主任，
现担任国际 SCI 期刊《Meat Science》副主编、中文核心期刊《中国
畜牧杂志》副主编、中国畜产品加工研究会肉品加工专业委员会副主
任委员兼秘书长。

科研情况：

在研项目：

国家自然科学基金面上项目，蛋白质亚硝基化对牛肉成熟嫩化过程中细胞
凋亡的调控机理研究，31871827，2019.1-2022.12，60 万；

国家自然科学基金面上项目，蛋白质亚硝基化对猪肉持水力的作用机理研
究，31571853，2016.1-2019.12，75 万；

“十三五”国家重点研发计划课题，禽畜水产类方便即食食品制造关键
技术开发研究及新产品创制，2016YFD0400703，2016.7-2020.12，500
万；

“十三五”国家重点研发计划子课题，民族特色工业化肉制品加工关键技术
与装备开发，2018YFD0400101，2018.7-2020.12，68万；

中央基本科研业务费，一氧化氮调控猪肉滴水损失的机理研究，
KYDZ201902，2019.1-2020.12，20万；

中央基本科研业务费，多浪羊宰后品质控制与休闲羊肉食品开发，
KYLH201701，2017.1-2019.12，20万。

发表学术论文（第一作者或通讯作者）：

1. Zhao, Y. Y., Zhou, G. H., & **Zhang, W. G.*** (2019). Effect of regenerated cellulose fiber on the properties and microstructure of emulsion model system from meat batters. *Food Hydrocolloid*, 87, 83-89.
2. Zhang, L. L., Liu, R., Cheng, Y. P., Xing, L. J., Zhou, G. H., & **Zhang, W. G.*** (2019). Effects of protein S-nitrosylation on the glycogen metabolism in postmortem pork. *Food Chemistry*, 272, 613-618.
3. Liu, R., Zhang, C. Y., Xing, L. J., Zhang, L. L., Zhou, G. H., & **Zhang, W. G.*** (2019). A bioinformatics study on characteristics, metabolic pathways, and cellular functions of the identified S-nitrosylated proteins in postmortem pork muscle. *Food Chemistry*, 274, 407-414.
4. Xiao, Z. C., Ge, C. R., Zhou, G. H., **Zhang, W. G.***, & Liao, G. Z. (2019). ¹H NMR-based metabolic characterization of Chinese Wuding Chicken meat. *Food Chemistry*, 274, 574-582.
5. Liu, R., Lonergan, S., Steadham, E., Zhou, G. H., **Zhang, W. G.***, & Huff-Lonergan, E. (2019). Effect of nitric oxide and calpastatin on the inhibition of calpain-1 activity, autolysis and proteolysis of myofibrillar proteins. *Food Chemistry*, 275, 77-84.
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7. Xing, L. J., Ge, Q. F., Jiang, D. L., Gao, X. G., Liu, R., Cao, S. M., Zhuang, X. B., Zhou, G. H., & **Zhang, W. G.*** (2018). Caco-2 cell-based electrochemical biosensor for evaluating the antioxidant capacity of Asp-Leu-Glu-Glu isolated from dry-cured Xuanwei ham. *Biosensors and Bioelectronics*, 105, 81-89.

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11. Wang, A. R., Kang, D. C., **Zhang, W. G.***, Zhang, C. Y., Zou, Y. H., & Zhou, G. H. (2018). Changes in calpain activity, protein degradation and microstructure of beef *M. semitendinosus* by the application of ultrasound. *Food Chemistry*, 2018, 245, 724-730.
12. Liu, R., Warner, R., Zhou, G. H., & **Zhang, W. G.*** (2018). Contribution of nitric oxide and protein S-nitrosylation to variation in fresh meat quality. *Meat Science*, 144, 135-148.
13. Liu, R., Fu, Q. Q., Lonergan, S., Huff-Lonergan, E., Xing, L. J., Zhang, L. L., Bai, Y., Zhou, G. H., & **Zhang, W. G.*** (2018). Identification of S-nitrosylated proteins in postmortem pork muscle using modified biotin switch method coupled with isobaric tags. *Meat Science*, 145, 431-439.
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15. Zhao, Y. Y., Hou, Q., Zhuang, X. B., Wang, Y., Zhou, G. H., & **Zhang, W. G.*** (2018). Effect of regenerated cellulose fiber on the physicochemical properties and sensory characteristics of fat-reduced emulsified sausage. *LWT-Food Science and Technology*, 97, 157-163.
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in calpain system, desmin degradation and water holding capacity between commercial Meishan and Duroc×Landrace×Yorkshire crossbred pork. *Animal Science Journal*, 87, 109–116.

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- protein oxidation, and μ -calpain activation between pale, soft, exudative and red, firm, non-exudative pork during postmortem aging. *Journal of Animal Science*, 92, 3745-3752.
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科研成果：

先后主持国家自然科学基金面上项目、“十二五”国家科技支撑计划课题、“十三五”国家重点研发计划课题、国家回国人员择优资助项目等项目。主编英文著作《*Spoilage Microorganisms in Food*》，主编中文著作《冷却猪肉加工技术》，获大北农青年学者奖，以主要完成人获神农中华农业奖优秀创新团队奖和中国食品科学技术学会技术创新奖一等奖，申请或授权发明专利 14 项。