简　历

基本资料

姓名：房林　　**性别：** 女

出生年月：1986.07　　民族：汉族

电话：01-814-3216224（手机）　　**籍贯：**山东烟台

电子邮箱：linfang@lbl.gov　　婚姻状况：已婚已育

学历：博士　　专业：农业与生物工程

地址：5885 Hollis St, Emeryville, CA 94608

工作与教育经历

2014.9- 至今　劳伦斯伯克利国家实验室　Joint Bioenergy Institute (JBEI)

导师： Jenny Mortimer

博士后 在 Plant Cell 发表一篇文章，首次揭示了 GT 64 家族的两组蛋白的生化功能，以及植物细胞膜脂的糖基化对结晶纤维素的合成的影响。

2009.9 – 2014.6　美国宾夕法尼亚州立大学 Center for Lignocellulose Structure and Formation (CLSF)

博士：农业与生物工程专业

导师: Jeffrey Catchmark

博士期间发表学术论文 4 篇，其中以第一作者发表三篇 SCI。

2005.9 – 2009.6　山东科技大学 化学与环境工程学院

本科：生物工程专业

发表论文

期刊杂志论文

Fang L, Ishikawa T, Rennie EA, Murawska GM, Lao J, Yan J, Tsai AYL, Baidoo EEK, Xu J, Keasling JD, Demura T, Kawai-Yamada M, Scheller HV, Mortimer JC (2016). Loss of inositol phosphorylceramide sphingolipid mannosylation induces plant immune responses and reduces cellulose content in Arabidopsis. tpc. 00186.2016. Plant Cell **(5 year IF: 10.52)**

Fang L and Catchmark J (2014). Characterization of water-soluble exopolysaccharides from Gluconacetobacter xylinus and their impacts on bacterial cellulose crystallization and ribbon assembly. Cellulose 21(6): 3965-3978 **(IF: 3.2, 引用次数 12)**

Fang L and Catchmark J (2015). Characterization of cellulose and other exopolysaccharides produced from Gluconacetobacter strains. Carbohydrate polymers 115(22): 663–669 **(5 year IF: 4.7， 引用次数 11)**

Fang L and Catchmark J (2014). Structure characterization of native cellulose during dehydration process. Cellulose 21(6): 3951-3963 **(IF: 3.2,引用次数 8)**

Y Deng, Nagachar N, **Fang L**, Luan X, Catchmark J, Tien M, Kao TH (2015). Isolation and characterization of two cellulose morphology mutants of Gluconacetobacter hansenii ATCC23769 producing cellulose with lower crystallinity. PLoS one 10(3): e0119504 **(IF: 3.2,引用次数 5)**

筹备中的论文

Fang L, Murawska G, Rennie E, Mortimer JC. Rapid profiling of plant sphingolipid polar head by thin layer chromatography and MALDI-TOF. (Target Journal: Journal of Lipid Research)

Ishikawa T, **Fang L**, Rennie E, , Lao J, Cahoon Ed, i Kawai-Yamada M, Mortimer JC. Identification of a inositol phosphorylceramide sphingolipid GlcNAc transferase (Target Journal: The Plant Journal)

Fang L and Catchmark J. The effect of cellulose binding polysaccharides on the formation of bacterial cellulose and its enzymatic hydrolysis.

Lao J, **Fang L**, Scheller HV, Dupree P, Mortimer JC. Separation and quantitation of all major plant cell wall monosaccharides in a single, rapid HPAEC-PAD method

会议论文

Dupree P, Mortimer JC, Ishikawa T, **Fang L**, Jing BB, Rennie E, Inada N, Yu XL, Lao J, Demura T, Kawai-Yamada M, Scheller H. (2015) Glycosylated sphingolipid biosynthesis and function in Arabidopsis. Glycobiology

Fang L and Catchmark J (2014) Structure characterization of native cellulose during dehydration process. 2014. CSBE/ASABE Annual Meeting paper, Montreal, Quebec Canada. ASABE Paper Number: 141895687

Fang L and Catchmark J (2013) Structure characterization of bacterial cellulose during dehydration process. 2013. ASABE Annual Meeting paper, Kansas City, MO. ASABE Paper Number: 1596474

Fang L and Catchmark J (2012) Analysis of Gluconacetobacter xylinus exopolysaccharides and its impacts on bacterial cellulose production and crystallization 2012. ASABE Annual Meeting paper, Dallas, TX. ASABE Paper Number: 121337799

专利

Fang L and Catchmark J (2013) Engineered biomass for improved conversion. Docket No. P10566US00

会议报告

Fang L and Mortimer JC. (2016) The glycosylation of plant sphingolipids affects cellulose crystallization, International Workshop on Plant Membrane Biology (IWPMB) Meeting, June 5-10, 2016, Maryland.

Fang L and Catchmark J (2014) Structure characterization of native cellulose during dehydration. Cellulose Structures, Surfaces, and Interfaces. CELL Division, ACS national meeting, 2014, March 16-20, Dallas.

Fang L and Catchmark J (2013) Characterization of water-soluble exopolysaccharides from Gluconacetobacter xylinus and their impacts on bacterial cellulose formation. First International Symposium on BNC Materials. CELL Division, ACS national meeting, 2013, April 7-10, New Orleans.

Fang L and Catchmark J (2013) The effect of water-soluble polysaccharides on the formation of bacterial cellulose and its enzymatic hydrolysis. IBE 2013 Annual Conference presentation, Raleigh, NC.

Fang L and Catchmark J, Tien , Iyer P (2011) Structural differences of cellulose synthesized from in vivo and in vitro from Gluconacetobacter xylinus. IBE 2011 Annual Conference presentation, Atlanta, GA.

参加项目

博后期间参与科研项目：1)细胞膜脂的结构对纤维素及其他植物多糖合成的影响

2)细胞膜脂的糖基化的快速表征

3)植物多糖的结构表征

博士期间参与科研项目: 1)天然纤维素以及纤维素复合材料的合成以及结构表征

2)植物可溶性多糖与纤维素的相互作用对生物质酶解的效率的影响

3) 使用传统 X 射线衍射和小角中子衍射表征纤维素生物质结构

教学实践

2012-2014 担任宾夕法尼亚州立大学本科课程 BE303 “structural systems in agriculture” 的助教

2013-2015 指导本科生自主创新项目“细菌纤维素在生物医药领域的应用”

2016-2017 指导硕士生项目“植物鞘脂的分离与鉴定”

科研特长

Biochemistry: Plant polysacharide and plant lipid analysis, Protein expression and purification, Chromatograph (HPLC, IC, SEC),

Material Science: Microscope (FE-SEM, TEM), Structural Analysis (X-ray diffraction, electron diffraction); NMR, Optical Spectroscopy (FTIR, UV-VIS), Dynamic mechanic analyzer, surface nitrogen absorption

Molecular Biology: PCR, Cloning, RNA and DNA isolation, cDNA synthesis

Fermentation: Medium evaluation, Flask cultivation, Bioreactor operation, Modeling of cultivation kinetics, Submerged/solid state fermentation (bacteria, yeast, fungi)