- 16. Zhou, Qi; Dai, Lingmin; Cheng, Siyan; He, Jing; Wang, Dan; Zhang, Jianxia; Wang, Yuejin. A circulatory system useful both for long-term somatic embryogenesis and genetic transformation in Vitis vinifera L. cv. Thompson Seedless. PLANT CELL TISSUE AND ORGAN CULTURE, 2014, 118(1)
- 17. Sun, Jianzhi; He, Hui; Liu, Shuhui. Determination of phthalic acid esters in Chinese white spirit using dispersive liquid-liquid microextraction coupled with sweeping beta-cyclodextrin-modified micellar electrokinetic chromatography. JOURNAL OF SEPARATION SCIENCE, 2014, 37 (13)
- 18. Nie, Xiaojun; Deng, Pingchuan; Feng, Kewei; Liu, Peixun; Du, Xianghong; You, Frank M.; Song Weining. Comparative analysis of codon usage patterns in chloroplast genomes of the Asteraceae family, PLANT MOLECULAR BIOLOGY REPORTER, 2014, 32(4)
- 19. Wu, Shan, Liang, Dong; Ma, Fengwang. Leaf micro morphology and sugar may contribute to differences in drought tolerance for two apple cultivars. PLANT PHYSIOLOGY AND BIOCHEMISTRY, 2014, 80
- 20. Wu, Wenqi; Piyaratne, M. K. D. K.; Zhao, Huiyan; Li, Chunlong; Hu, Zuqing; Hu, Xiangshun. Butterfly catastrophe model for wheat aphid population dynamics: Construction, analysis and application. ECOLOGICAL MODELLING, 2014,288
- 21. Li, Xiao-Feng; Yu, Huan; Zhang, ChuanXi; Chen, Hui; Wang, Dun. Helicoverpa armigera nucleopolyhedrovirus orf81 is a late gene involved in budded virus production. ARCHIVES OF VIROLOGY, 2014, 159(8)
- 22. Zhang, Lei; Zhu, Lingfang; Si, Meiru; Li, Changfu; Zhao, Liang; Wei, Yahong; Shen, Xihui. Solirubrobacter taibaiensis sp. nov., isolated from a stem of Phytolacca acinosa Roxb, ANTONIE VAN LEEUWENHOEK INTERNATIONAL JOURNAL OF GENERAL AND MOLECULAR MICROBIOLOGY, 2014, 106(2)
- 23. Zhang, Xin-mei; Zhao, Xiaoqiong; Feng, Chuanxin; Liu, Na; Feng, Hao; Wang, Xiaojie; Mu, Xiaoqian; Huang, Lili; Kang, Zhensheng. The cloning and characterization of a DEAD-Box RNA helicase from stress-responsive wheat. PHYSIOLOGICAL AND MOLECULAR PLANT PATHOLOGY, 2014, 88
- 24. Liu, Jie; Zhang, Qiong; Chang, Qing; Wang, Qiuling; Han, Lina; Liu, Jia; Li, Man; Zhuang, Hua; Kang, Zhensheng. Cloning and characterization of a dynein light chain gene from Puccinia striiformis f. sp. Tritici. JOURNAL OF BASIC MICROBIOLOGY, 2014, 54
- 25. Liu, YingBao; Chen, Can; Chaudhry, Muhammad Tausif; Si, MeiRu; Zhang, Lei; Wang, Yao; Shen, Xi-Hui. Enhancing Corynebacterium glutamicum robustness by over-expressing a gene, mshA, for mycothiol glycosyltransferase, BIOTECHNOLOGY LETTERS, 2014, 36(7)
- 26. Zhang, Kai; Di, Ning; RidsdillSmith, James; Zhang, BoWen; Tan, XiaoLing); Cao, He-He; Liu, YanHong; Liu, TongXian. Does a multi-plant diet benefit a polyphagous herbivore Acase study with Bemisia tabaci. ENTOMOLOGIA EXPERIMENTALIS ET APPLICATA, 2014, 152(2)
- 27. Qi, Yinyan; Du, Lingjuan; Quan, Yonghui; Tian, Feifei; Liu, Yali; Wang, Yuejin. Agrobacterium-mediated transformation of embryogenic cell suspension cultures and plant regeneration in Lilium tenuifolium oriental x trumpet 'Robina'. ACTA PHYSIOLOGIAE PLANTARUM 2014, 36(8)
- 28. Yin, ZhenFang; Bi, WenLu; Chen, Long; Zhao, Bing; Volk, Gayle M.; Wang, QiaoChun. An efficient, widely applicable cryopreservation of Lilium shoot tips by droplet vitrification, ACTA PHYSIOLOGIAE PLANTARUM, 2014, 36(7)
- 29. Li, Y.; Chen, W.; Wang, Q.; Wang, N.; Wu, YF. Assessment of reference genes for quantitative real-time PCR gene expression normalization in periwinkle during Wheat Blue Dwarf phytoplasma infection. AUSTRALASIAN PLANT PATHOLOGY, 2014, 43(4)
- 30. Wang, XiaoMin; Gaudet, Denis A.; Liu, Wei; Frick, Michele; Puchalski, Byron; Lu, Zhen Xiang; Leggett, Fran; Kang, Zhen Sheng; Laroche, André. Defence responses including hypersensitive cell death, oxidative burst and defence gene expression in 'Moro' wheat inoculated with Puccinia striiformis. CANADIAN JOURNAL OF PLANT PATHOLOGY, 2014, 36(2)
- 31. Zhao, Lei; Feng, Chaohong; Hao, Xingan; Wang, Renrui; Hu, Lingyun; Wang, Qiaochun; Wu, Yunfeng. Detection and Molecular Variability of Turnip mosaic virus (TuMV) in Shaanxi, China, JOURNAL OF PHYTOPATHOLOGY, 2014, 162(7-8)
- 32. Zhang, JiWen; Zhang, WenJuan; Wei, ShaoPeng; Wu, WenJun. A New Dihydrooxazole Antibiotic from the Fermentation Broth of Streptomyces djakartensis. HETEROCYCLES, 2014, 89(7)
- 33. Xue, Shuang; Hua, Baozhen. Proboscis sensilla of the black cutworm Agrotis ypsilon (Rottemberg) (Lepidoptera: Noctuidae). JOURNAL OF ASIA-PACIFIC ENTOMOLOGY, 2014, 17(3)
- 34. Zhou, XL; Han, DJ; Chen, XM; Gou, HL; Guo, SJ; Rong, L; Wang, QL; Huang, LL; Kang, ZS. Characterization and molecular mapping of stripe rust resistance gene Yr61 in winter wheat cultivar Pindong 34. THEORETICAL AND APPLIED GENETICS. 2014, 127



# 简报 Report

2014年7月1日 - 2014年9月30日 July 1-September 30, 2014 2014年第3期 Vol. 3, 2014



#### 一、国际联合研究中心建设

1. Establishment of International Joint Research Center

### 中澳生物与非生物逆境治理联合研究中心揭牌 Unveiling of China-Australia Joint Center of Biotic and Abiotic Stress Management

9月13日,依托我室和默多克大学生物与食品安全 研究中心共建的中澳生物与非生物逆境治理联合研究中 心揭牌仪式在我校举行。澳大利亚默多克大学校长 Richard Higgott等一行6人、我校校长孙其信、副校长 罗军、国际合作交流处处长雷鸣、实验室主任康振生教 授及有关专家和研究生等80余人参加活动。

罗军副校长主持会议并宣布"中澳生物和非生物逆 境治理联合研究中心"正式成立,聘任康振生教授和 Shashi Sharma教授为联合研究中心共同主任, Richard Higgott校长和孙其信校长共同为联合研究中 心揭牌并致辞。Shashi Sharma教授、康振生教授分 别就联合研究中心的发展规划做了汇报和展望。

The unveiling ceremony of the China-Australia Joint Center of Biotic and Abiotic Stress Management was held in Northwest A&F University (NWAFU) on September 13, 2014. The center was established based on the State Key Laboratory of Crop Stress Biology for Arid Areas (CSBAA), NWAFU and the Biology and Food Safety Research Center (BFSRC), Murdoch University (MU), Australia. The ceremony was attended by the MU delegation of six people led by President Richard Higgott, and Qixin Sun, President; Jun Luo, Vice President; Ming Lei, Director of International Cooperation and Exchange; Zhensheng Kang, Director of CSBAA; and more than 80 scientists and graduate students of NWAFU.

Vice President Jun Luo presided over the ceremony and announced the official establishment of the joint center. Prof. Kang and Prof. Shashi Sharma were appointed as the Co-Directors of the joint center. President Sun and President Higgott unveiled the center name plate and made remarks. Prof. Sharma and Prof. Kang presented the center development and future plan

#### 中澳生物与非生物逆境治理联合研究中心第一次学术研讨会召开

CSBAA held the first workshop of China-Australia Joint research Center of Biotic and Abiotic Stress management

9月13日,中澳生物与非生物逆境治理联合研究中心第一次学术研讨会在我校国际交流中心201会议室召开。我室研究人员、研究生100余人参加了会议,宋卫宁教授主持研讨会。Shashi Sharma教授、胡银岗教授、Wujun Ma教授和康振生教授分别做学术报告,会议围绕小麦和苹果抵御逆境机理机制进行了探讨交流。

The first workshop of the China-Australia Joint Research Certer of Biotic and Abiotic Stress Management was held in the 201 Conference Room of the university International Exchage Center on September 13, 2014. More than 100 scientists and graduate students of the CSBAA key laboratory attended the workshop. Prof. Weining Song presided over the workshop. Profs. Shashi Sharma, Yinggan Hu, Wujun Ma, and Zhensheng Kang presented research progress. Participatants discussed the mechanisms of stress resistance in wheat and apple.









Shashi Sharma教授、胡银岗教授、Wujun Ma教授、康振生教授做报告 Prof. Shashi Sharma、Prof. Yinggan Hu、Prof. Wujun Ma、Prof. Zhensheng Kangwas presenting

### 默多克大学代表团来我室交流访问并商谈联合研究中心事宜

The Murdoch University Delegation Visited the CSBAA and Talked over Establishing a Joint Research Center

8月4日-7日澳大利亚默多克大学Shashi Sharma教授、Richard Harper教授、Giles Hardy教授、Mike Jones教授、Bernie Dell教授、Wunjun Ma教授以及国际事务处Pearl Chua处长一行七人来我室交流访问并商谈"生物和非生物逆境治理联合研究中心"建设与合作研究等相关事宜。

我校国际合作与交流处罗军处长,实验室主任康振生教授,刘同先教授、马锋旺教授、吉万全教授、宋卫宁教授、吴 云峰教授、黄丽丽教授、张硕新教授、曹志敏教授、胡银岗教授与默多克大学代表团就"生物和非生物逆境治理联合研究 中心"的建设与合作交流进行了研讨,初步达成双方围绕小麦和苹果抵御逆境机理机制以及林学生态环境领域开展合作研 究的意向。

A Murdoch University delegation consisting of ProfessorsShashi Sharma, Richard Harper, Giles Hardy, Mike Jones, Bernie Dell, Wunjun Ma and Mr. Pearl Chua, Director of International Affair was visiting the CSBAA and talking over to establish a joint research center of biotic and abiotic management on August 4-7, 2014.

Mr. Jun Luo, Director of International Cooperation and Exchange and Profs. Zhensheng Kang, Tongxian Liu, Fengwang Ma, WanquanJi, Weining Song, Yunfeng Wu, Lili Huang, Shuoxin Zhang, Zhimin Cao, and Yinggang Hu were participated in the discussions with the delegation overcollaboration, exchange, and center establishment. and Preliminary agreements were made on collaborations of studying the mechanisms stress resistance in wheat, apple, and forest ecology.



研讨会
The Murdoch University delegation and host scientists were had a research forum

#### 二、人才培养

#### 2. Scientist Training

#### 王晓杰博士获国家优秀青年科学基金项目资助

Dr. Xiaojie Wang Received Research Funding from the National Excellent Youth Science Foundation



8月18日,国家基金委发布了2014年国家自然科学基金项目评审结果,我室王晓杰博士喜获优秀青年科学基金项目资助。本项目的获批是我室首次在国家优青项目上的突破,也是我校迄今为止获批的第一个优秀青年基金项目。

In August 18th, 2014, the National Natural Science Foundation announced the 2014 funded projects. Dr. Xiaojie Wang received research funding from the Excellent Youth Science Foundation. This is the first time for our CSBAA scientist to receive a fund from the Excellent Youth Science Foundation. His project is also the first one funded by the Excellent Youth Science Foundation in our university.

### 五名研究生获学校优秀学位论文奖

Five Graduate Students Received the University Excellent Thesis Award

我室五名研究生荣获2014年学校优秀学位论文奖,其中优秀博士学位论文2名、优秀硕士学位论文3名。

Five CSBAA graduate students, two PhD students and three M.S. students, received the University Excellent Thesis Award.

序号	研究生姓名	导师姓名	论文题目
1	陈 亮(博士)	胡银岗	矮秆基因Rht12对小麦重要农艺性状的遗传效应及新矮秆突变体的筛选
	Liang Chen Ph.D.	Yinggan Hu	Genetic effect of dwarf gene Rht12 on important agronomic traits of wheat and selection of new dwarf mutants
2	冯 浩(博士)	康振生	寄主miRNAs调控小麦与条锈菌互作的分子机理
	Hao Feng Ph.D.	Zhensheng Kang	Molecular mechanisms of wheat-the stripe rust pathogen regulated by host miRNAs
3	张翰风(硕士)	江元清	油菜与拟南芥中钙相关蛋白激酶基因调控非生物逆境响应的机制研究
	HanfengZhang M.S.	Yuanqing Jiang	Mechanisms of abiotic responses in rapeseed and Arabidopsis regulated by calcium related protein kinases
4	程晨霞(硕士)	王西平	GA3 诱导葡萄无核机理的研究
	Chenxia Cheng M.S.	Xiping Wang	Mechanisms of GA3 induced seedless in grapes
5	毕秀丽(硕士)	李鹏民	花青苷在高温强光下对苹果叶片及果皮的保护机制
	Xiuli Bi M.S.	Pengmin Li	Mechanisms of protection of apple leaves and fruit by anthocyanin under high-temperature and strong light

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#### 三、学术交流

#### 3. Scientific Exchange

### 康振生教授率团参加中国植物病理学会 第十届全国会员代表大会暨2014年学术年会

Prof. Zhensheng Kang led the delegation participating in the 10th Chinese Phytopathology Society Member Meeting and the 2014 Annual Scientific Meeting

2014年7月30日至8月1日,由中国植物病理学会主办,沈阳农业大学植物保护学院等单位承办的中国植物病理学会第十届全国会员代表大会暨2014年学术年会在辽宁省沈阳市隆重召开,大会主题"现代植物病理学与粮食安全"。来自全国及美国、新加坡等地的海内外植物病理学科技工作者1300余人参加了会议。实验室主任康振生教授率团参加了本届大会并受特邀做了中美专题报告。

会议期间召开了中国植物病理学会第十届 全国会员代表大会。大会通过无记名投票方式选 举产生了中国植物病理学会第十届理事会。我室 主任康振生教授再次当选为新一届中国植物病 理学会副理事长。



参会代表合影 The CSBAA delegation at the meeting

The 10th Chinese Phytopathology Society Member Meeting and the 2014 Annual Scientific Meeting were held from July 30 to August 1 in Shenyang, Liaoning. The meetings were sponsored by the Chinese Phytopathology Society and organized by the College of Plant Protection, Shenyang Agricultural University. The meeting theme was "Modern Plant Pathology and Food Safety". More than 1300 plant pathologists from throughout China and other countries such as the United States and Singapore attended the meeting. Prof. Zhensheng Kang, Director of our key laboratory, led the NWAFU delegation and was invited to give a presentation at the China-US Phytopathology Special Symposium.

During the 10th Chinese Phytopathology Society Member Meeting, the 10<sup>th</sup> Chinese Phytopathology Society board members were voted. Prof. Kang was selected again as vice president of the society.

### 我室将承办2015年第十六届全国植物基因组学大会

CSBAAWill Host the 16th National Conference of Plant Genomics, 2015

8月19日-22日,第十五届全国植物基因组学大会在合肥召开。会议由中国遗传学会植物遗传与基因组专业委员会主办,安徽农业大学承办。会议期间召开了植物遗传与基因组专业委员会会议,会议确定2015年8月19日-22日由我校承办"第十六届全国植物基因组学大会"。实验室主任康振生教授代表第十六届全国植物基因组学大会组委会介绍了我校基本情况,并向参会代表发出真挚的邀请。

The 15<sup>th</sup> National Conference of Plant Genomics was held in Hefei, Anhui from August 19 to 22, 2014. The conference was sponsored by the Plant Genetics and Genomics Committee of the China Genetics Society and hosted by Anhui Agricultural University. During the conference, the Plant Genetics and Genomics Committee held the committee meeting and decided for Northwest A&F University to host the 16<sup>th</sup> National Plant Genetics and Genomics Conference August 19-22. On behalf of the 16<sup>th</sup> conference organization committee, Prof. Zhensheng Kang, director of CSBAA, made a brief introduction about our university and welcome participants to attend the next conference.

### 宋卫宁教授应邀在第五届小麦基因组学大会做报告

Prof. Weining Song Presented at the 5th Wheat Genomics Conference

8月18-19日,第五届全国小麦基因组学及分子育种大会在合肥召开,我室宋卫宁教授应邀参加会议并做题为"Using physical map and survey sequences to decode the structure and composition of wheat chromosome arm 7DL"的大会报告。会议主要围绕小麦结构与功能基因组学、小麦基因资源、小麦基因组育种及其与常规育种的结合等前沿研究进展进行交流探讨。

The 5<sup>th</sup> National Wheat Genomics and Molecular Breeding Conference was held in Hefei, Anhui, August 18-19, 2014. Prof. Weining Song was invited to present "Using physical map and survey sequences to decode the structure and composition of wheat chromosome arm 7DL". The conference participants presented and discussed research progress on the structural and functional genomics, gene resources, and combined genomics and conventional breeding of wheat.

### 胡银岗教授应邀率团赴加拿大访问交流 Group led by Prof HU Yin-Gang Visited Canada

应加拿大农业与农业食品部Lethbridge 研究中心Dr Lu,阿尔伯塔大学农学院国际事务院长助理Marta等邀请,2014年9月14日-19日,我室胡银岗教授、闵东红教授、郭东伟副教授及张朝阳副主任组成代表团访问了加拿大农业部Lethbridge 研究中心、萨斯卡通大学农学院、阿尔伯塔大学农学院,访问期间,代表团与相关单位的科教人员进行了交流,走访了相关实验室及研究基地,并达成相关合作意向,取得了圆满的成果。

Invited by Dr Lu of Lethbridge Research Center, AAFC, Associate Dean Marta Gomez-Wu of Faculty of Agricultural, Food & Nutritional Science, the University of Alberta, Prof Hu Yin-Gang, Prof Min Donghong, Associate Prof Guo Dongwei and Associate Director Zhang Chaoyang of the State Key Lab of Crop Stress Biology for Arid Areas visited Lethbridge Research Center, AAFC, Faculty of Agricultural, Food & Nutritional Science, the University of Alberta, and College of Agriculture and bioresources, University of Saskatchewan during Sept 14-19, 2014. During their visit, they communicated and exchanged researches with the professors in those organizations, and visited the labs and research bases, and also discussed the fields and ideas for further collaboration.





### 我室举办第一次生物组学数据分析学术沙龙

### CSBAA Held the First Science Club Meeting of Biological Meta-Data Analysis

7月4日,我室召开了首次生物组学数据分析学术沙龙,黄丽丽教授和宋卫宁教授主持会议。真菌比较基因组学团队刘慧泉博士,生物信息学与蛋白质组学团队童维博士,小麦基因组学团队聂小军博士及参会的研究生围绕组学数据挖掘、生物信息分析和基因组学研究分别介绍了自己的科研进展和对组学数据分析的体会、认识。我室从事组学相关研究的师生参加了学术研讨。

CSBAA held the first science club meeting of biological meta-data analysis on July 4, 2014. Profs.Lili Huang and Weining Song presided over the meeting. Dr. Huiquan Liu of the Fungal Comparative Genomics Research team, Dr. Wei Tong of the Bioinformatics and Proteomics Research team, and Dr. XiaojunNie from the Wheat Genomics Research team and graduate students presented and discussed their research progress and experience, focusing on data mining, bioinformatics, and genomics data analyses. Scientists and students of CSBAA working on various-mics attended the meeting.

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#### 国家"973"计划项目中期总结会召开

The Middle-Term Review and Summary Meeting for the National "973" Project Was Held

2014年8月5日,由我室黄丽丽教授担任首席科学家的国家"973计划"项目"小麦重要病原真菌毒性变异的生物学基础"中期工作总结会议在我校召开。科技部"973"项目跟踪专家喻子牛教授、周明国教授,项目组专家朱有勇院士、彭友良教授、陈万权研究员、李毅教授、黄丽丽教授、康振生教授、许金荣教授,项目中期考核聘请专家方荣祥院士、马占鸿教授及项目各课题科研骨于40多人参加了会议。

与会专家在审阅课题中期总结报告、听取课题负责人汇报的基础上,对课题工作状态和研究前景进行了评议。方荣祥院士等专家组成员对各课题中期工作成果均表示了肯定,并对下一阶段的研究工作给予了宝贵的意见及建议。黄丽丽教授对会议进行了总结,希望项目组成员进一步凝练研究方向,明确研究目标,加强交流与合作,突出重点,提升研究水平,力争取得更多重大标志性研究性成果。

The middle-term review and summary meeting for the national "973" project "The biological basis of variations in major fungal pathogens of wheat" was held at our university on August 5, 2014. Prof. Lili Huang is the principal investigator of the project. More than 40 scientists participated in the meeting, including Profs. Ziniu Yu and Mingguo Zhou, the monitoring scientists for the "973" Program of the Ministry of Science and Technology; and Profs. Youyong Zhu (Academician), Youliang Peng, Wanquan Chen, Yi Li, Lili Huang, Zhensheng Kang, and Jinrong Xu, principal investigators of the "973" projects; and Profs. Rongxiang Fang (Academician) and Zhanhong Ma, invited scientists for middle-term reviewing the project.

Based on the middle-term project report and the reports given by the major principal investigators, the meeting participates evaluated the project work status and future perspectives. Academician Rongxiang Fang and other review committee members made favorable comments on the achievements made in all aspects of the project, and also made valuable suggestions for the next phases of the project. Prof. Lili Huang made the summary remarks and wishes for all scientists of the project to further specify the research goals and focuses, strengthen collaboration and exchange, improve research level, and achieve more remarkable research accomplishments.



### 三个国家重点实验室联合学术研讨会在内蒙召开

The Joint Workshop of Three State Key Laboratories were held in neimeng

7月24日,由植物病虫害生物学国家重点实验室、水稻生物学国家重点实验室、旱区作物逆境生物学国家重点实验室 共同举办的第二届学术研讨会在中国农科院植保所锡林郭勒草原有害生物科学观测实验站召开。来自三个实验室的40位 专家学者参加了研讨会,我室刘同先教授、黄丽丽教授、胡银岗教授、赵天永教授分别做学术报告。

The 2<sup>nd</sup>Joint Workshop of the State Key Laboratories of Plant Disease and Pest Biology, Rice Biology, and CSBAA was held at the Xilingaole Harmful Oragnism Monitoring and Experimental Station of the Chinese Academy of Agricultural Sciences on July 24. More than 40 scientists from the three state key laboratories participated in the workshop. Profs. Tongxian Liu, Lili Huang, Yinggang Hu, and Tianyong Zhao of CSBAA delivered presentations at the workshop.



#### 四、学术报告

#### 4. Seminars

本季度,受我室邀请,深圳华大基因研究院副院长张耕耘博士、美国农业部植物病理学家Weidong Chen、美国农阿华州立大学Mark L. Gleason教授、美国马萨诸塞大学 Elizabeth Vierling教授、美国加州大学戴维斯分校 Krishna Subbarao教授、澳大利亚悉尼大学Robert McIntosh教授、华南农业大学潘庆华教授等7位国内外知名专家来我室交流访问并做学术报告。



From July to September, CSBAA invited and hosted the following national and international scientists for visiting the key laboratory, presenting seminars, and exchanging scientific information:

- Dr. Genyun Zhang, Vice President of the Huada Genomics Research Academy, Shenzhen;
- Dr. Weidong Chen, Research Plant Pathologist, US Department of Agriculture, Agricultural Research Service and adjunct Professor of Washington State University, USA;
- Dr. Mark L. Gleason, Professor of Iowa State University, USA;
- Dr. Elizabeth Vierling, Professor of the University of Massachusetts, USA;
- Dr. Krishna Subbarao, Professor of the University of California, Davis, USA;
- Dr. Robert McIntosh, Professor of the University of Sydney, Australia;
- Dr. Qinghua Pan, Professor of Southern Agricultural University.

#### 五、参观访问

#### 5. Visiting

### 康奈尔大学Ronnie Coffman教授来实验室交流访问

Prof. Ronnie Coffman from Cornell University Visited CSBAA

9月13日,美国康奈尔大学国际处处长、植物病理系Ronnie Coffman教授来我室交流访问。实验室主任康振生教授介绍了实验室研究方向、科研队伍以及国际合作交流等情况,王晓杰博士等分别介绍了小麦锈病研究团队近年的工作和取得的成绩,宋卫宁教授介绍了小麦7DL基因组测序工作进展。双方并就感兴趣的问题进行了交流探讨。

Dr. Ronnie Coffman, Director of International Programs, Cornell University and Professor of the Department of Plant Pathology was visiting CSBAA on September 13, 2014. Prof. Zhensheng Kang, Director of CSBAA, introduced him the research fields and teams of our laboratory and our international collaborations and exchanges. Dr. Xiaojie Wang and others talked to him the recent achievements and progresses on wheat stripe rust research. Prof. Weining Song talked him the progress on sequencing of wheat chromosome 7DL. The guest and hosts had discussions on mutually interested issues and topics.



康振生教授介绍小麦锈菌生物学研究进展 Prof. Zhensheng Kang was presenting research progresses on wheat rust biology

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#### 第十一届世界葡萄大会参会代表来我室参观考察

#### Participants of the 11<sup>th</sup> International Viticulture Conference Visited CSBAA



宋卫宁教授介绍实验室情况 Prof. Weining Song was introducing the key laboratory

8月3日,参加第十一届世界葡萄大会的30余位代表来我室参观考察。宋卫宁教授介绍了实验室历史沿革、科研队伍、研究方向、仪器设备以及近期取得的科研成果等方面的情况,王跃进教授介绍了葡萄抗病机理解析、品种选育等方面的最新研究进展。

More than 30 participants of the 11<sup>th</sup> International Viticulture Conference were visited CSBAA on August 3, 2014. Prof. Weining Song introduced the history, teams of scientists, research fields, facilities and equipment, and the recent research progresses of the key laboratory. Prof. Yaojin Wang introduced the recent progresses of disease resistance mechanisms and breeding cultivars of grapes.

#### 复旦大学常务副校长陈晓漫一行来我室参观访问

Executive Vice President Xiaoman Chen leading an Fudan University delegation visited CSBAA

7月20日,复旦大学常务副校长陈晓漫一行7人来我室参观访问,我校科学技术发展研究院有关负责人陪同参观。实验室主任康振生教授介绍了实验室研究方向、人才队伍、运行机制与管理体制、公共平台开放共享等方面情况,双方就实验室运行管理和开放交流进行了交流探讨。

A delegation of seven people from Fudan University led by Executive Vice President Xiaoman Chen was visiting CSBAA on July 20, 2014. Officers of our university Science and Technology Research and Development Office accompanied the visit. Prof. Zhensheng Kang, Director of CSBAA, introduced the guests of information on the laboratory research directions, scientist teams, operation and management system, and shared platforms open to public. Guests and hosts had further discussion on laboratory opening and exchange, as well as operation and management.



康振生教授与陈晓漫副仪长父流探诃 Prof. Zhensheng Kang and Vice President Xiaoman Chen were exchanging information and ideas

### 台湾三所高校30名师生来我室参观访问

### Thirty Students and Teachers from Three Universities in Taiwan Visited CSBAA

7月8日,来我校参加第八届海峡两岸高校学生"同根·同源"文化交流活动的台湾屏东科技大学苗志铭老师、嘉义大学李安进老师、台湾大学黄静儒老师及三所高校的30名学生来我室参观访问。胡银岗教授向来访师生介绍了实验室历史沿革、科研队伍、研究方向和近期取得的科研成果。访问团一行实地参观了实验室仪器设备平台并与实验室技术人员就感兴趣的问题进行了交流探讨。



and students was visiting the laboratory

A delegation of 30 students and teachers led by teachersZhiming Miao of National Pingtung University of Science and Technology, Anjin Li of National Chiayi University, and Jingru Huang of National Taiwan University was visiting CSBAA on July 8, 2014. The delegation came to our university to participated in the 8<sup>th</sup> Mainland and Taiwan "Common Root • Common Source" Cultural exchange. During their visit of our laboratory, Prof. Yinggang Hu introduced the guests the history, scientist team, research fields, and recent progresses. The delegation visited the facilities and equipment of the laboratory platforms, and discussed interesting questions with laboratory technicians and scientists.

#### 2014年我室获批19项国家自然科学基金

## Scientists of CSBAA Received Funding for 19 Projects from the 2014 National Natural Science Foundation

2014年,我室获批国家自然科学基金各类项目19项,其中优秀青年科学基金1项、重点项目1项、青年项目4项、面上项目13项。累积合同金额1637万元。

In 2014, scientists of the state key laboratory received funding for 19 projects from the National Natural Science Foundation with a total of 16.37 million RMB. Of the projects, one is from the Excellent Youth Program, one from the Key Program, 4 from the Youth Program, and 13 from the Broad Program.

序号 Serial No.	项目批准号 No. of projects	负责人 Principal	<b>项目名称</b> Project title	项目类别 Project category	金额(万元) Funds
1	31430069	康振生 Zhensheng Kang	小麦条锈菌效应子鉴定及其调控机理 Effectors and regulation mechanisms of the wheat stripe rust fungus	重点项目 Key	329
2	31422043	王晓杰 Xiaojie Wang	植物真菌病害 Plant Fungal Diseases	<b>优青项目</b> Excellent Youth	100
3	31471844	徐 炎 Yan Xu	葡萄霜霉菌效应因子筛选及中国野生葡萄抗霜霉病基因鉴定 Screening for effectors in the grape downy mildew pathogen and identification of genes for downy mildew resistance in wild grapes in China	面上项目 Broad	90
4	31471731	胡小平 Xiaoping Hu	基于RAD-seq的我国小麦条锈菌传播与起源研究 Origin and spread of the wheat stripe rust fungus in China using RAD-seq	面上项目 Broad	89
5	31470618	罗志斌 Zhibin Luo	转gsh1基因杨增强重金属镉富集的分子生理调控机制 Mechanisms of molecular and physiological regulation of popular transformed with gene <i>Gsh1</i> on enhancing the enrichment of heavy metal element cadmium	面上项目 Broad	89
6	31471819	刘同先 Tongxian Liu	食蚜瓢虫与蚜虫寄生蜂互作机制及其利用 Mechanisms and utilization of interactions between aphid-eating lady bugs and parasitoid wasps	面上项目 Broad	88
7	31470484	张世泽 Shize Zhang	烟粉虱天敌集团内捕食作用及其生态学机制研究 Predation effects of natural enemies of Bemisiatabaci and their ecological mechanisms	面上项目 Broad	86
8	31471153	江元清 Yuanqing Jiang	一条全新的蛋白激酶与转录因子信号通路 调控ABA与干旱应答的分子机制研究 Molecular mechanisms of drought responses of a new protein kinase and ABA signal transduction pathway	面上项目	86

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9	31471482	赵惠贤 Huiyan Zhao	3个小麦种子特异表达的全新microRNA的功能研究 Functional analyses of three new microRNAs specifically expressed in wheat seed	面上项目 Broad	85
10	31471732	黄丽丽 Lili Huang	苹果树腐烂病菌效应蛋白VmEP1抑制植物免疫性的机理研究 Mechanisms of resistance inhibition by effector protein VmEP1of the apple canker fungus	面上项目 Broad	85
11	31471733	王晓杰 Xiaojie Wang	小麦Metacaspase I型基因在小麦 细胞死亡及抗条锈中的作用机理 Mechanisms of effects of wheat metacaspase I genes on cell death and stripe rust resistance	面上项目 Broad	85
12	31470290	安丽君 Lijun An	拟南芥HD-Zip转录因子GL2调控 植物表皮毛发育的分子机制研究 Molecular mechanisms of regulating surface hair development by HD-Zip transcription factor GL2 in Arabidopsis	面上项目 Broad	80
13	31471825	宋卫宁 Weining Song	恶性入侵植物紫茎泽兰种群遗传特性与入侵机制研究 Population genetics and invasive mechanisms of aggressive invading plant species Ageratinaadenophora	面上项目 Broad	85
14	31471845	赵政阳 Zhengyang Zhao	MYB1启动子甲基化调控光胁迫 诱导苹果果实着色的机制研究 Mechanisms of apple fruit pigmentation regulated by the methylation of the MYB1 start codon under light stress	面上项目 Broad	82
15	31471568	王中华 Zhonghua Wang	小麦表皮蜡质二酮合成酶候选基因功能研究 Functional analysis of candidate genes for wheat surface wax diketide synthases	面上项目 Broad	80
16	31401689	张新梅 Xinmei Zhang	条锈菌诱导的小麦候选感病基因TaHIPP1的感病机制解析 Mechanisms of candidate genes for susceptibility gene TaHIPP1 induced by the wheat stripe rust pathogen	<b>青年项目</b> Youth	25
17	31401693	汤春蕾 Chunlei Tang	条锈菌激发子Pst_EC1诱导寄主小麦防御反应的分子机理 Molecular mechanisms of induction of host defense response by elicitor Pst_EC1 from the wheat stripe rust fungus	青年项目 Youth	25
18	31400216	赵 军 Jun Zhao	一个拟南芥叶绿体镁离子转运蛋白 AtMGT10/VAR5的功能研究 Functional analysis of Mg-transport protein AtMGT 10/VAR5 in <i>Arabidopsis thaliana</i> chloroplasts	青年项目 Youth	24
19	31401373	聂 <b>小军</b> XiaojunNie	基于转录组测序的野生二粒小麦盐胁迫相关基因的鉴定与优异等位变异发掘 Identification of saline stress related genes and screening for desirable alleles in diploid wheat germplasm by sequencing transcriptome	青年项目 Youth	24

### 7-9月公开发表的SCI论文 Publications, July - September, 2014

#### 2014年7至9月,我室固定研究人员在SCI收录刊物发表署名论文31篇。

From July to September, 2014, CSBAA scientists published 31 papers in SCI journals.

- 1. Zhang, Huili; Wu, Zhongshou; Wang, Chenfang; Li, Yang; Xu, JinRong. Germination and infectivity of microconidia in the rice blast fungus *Magnaporthe oryzae*. NATURE COMMUNICATIONS, 2014, 5
- 2. Lou, Qian; Liu, Yali; Qi, Yinyan; Jiao, Shuzhen; Tian, Feifei; Jiang, Ling; Wang, Yuejin. Transcriptome sequencing and metabolite analysis reveals the role of delphinidin metabolism in flower colour in grape hyacinth. JOURNAL OF EXPERIMENTAL BOTANY, 2014, 65(12)
- 3. Wen, Zhifeng; Yang, Yazhou; Zhang, Jinjin; Wang, Xiping; Singer, Stacy; Liu, Zhongchi; Yang, Yingjun; Yan, Guohua; Liu, Zongrang. Highly interactive nature of flower-specific enhancers and promoters, and its potential impact on tissue-specific expression and engineering of multiple genes or agronomic traits. PLANT BIOTECHNOLOGY JOURNAL, 2014, 12(7)
- 4. Zhou, Xiaoying; Zhao, Xinhua; Xue, Chaoyang; Dai, Yafeng; Xu, JinRong. Bypassing Both Surface Attachment and Surface Recognition Requirements for Appressorium Formation by Overactive Ras Signaling in *Magnaporthe oryzae*. MOLECULAR PLANT-MICROBE INTERACTIONS, 2014, 27(9)
- 5. Xie, Qilong; Liu, Shuhui; Fan, Yingying; Sun, Jianzhi; Zhang, Xiaoke. Determination of phthalate esters in edible oils by use of QuEChERS coupled with ionic-liquid-based dispersive liquid-liquid microextraction before high-performance liquid chromatography. ANALYTICAL AND BIOANALYTICAL CHEMISTRY, 2014, 406(18)
- 6. Liu, XiaoFeng; Hu, XiangShun; Keller, Mike A.; Zhao, Hui-Yan; Wu, YunFeng; Liu, TongXian. Tripartite Interactions of *Barley Yellow Dwarf Virus*, *Sitobion avenae* and Wheat Varieties. PLOS ONE, 2014,9(9)
- 7. Dai, Xinjia; Gao, Suxia; Liu, Deguang. Genetic Basis and Selection for Life-History Trait Plasticity on Alternative Host Plants for the Cereal Aphid Sitobion avenae. PLOS ONE, 2014,9(9)
- 8. Chen, Daipeng; Wang, Yang; Zhou, Xiaoying; Wang, Yulin; Xu, JinRong. The Sch9 Kinase Regulates Conidium Size, Stress Responses, and Pathogenesis in Fusarium graminearum. PLOS ONE, 2014, 9(8)
- 9. Cao, Xu; Jia, Jingbo; Zhang, Chao; Li, Hong; Liu, Tongxian; Jiang, Xiangning; Polle, Andrea; Peng, Changhui; Luo, ZhiBin. Anatomical, physiological and transcriptional responses of two contrasting poplar genotypes to drought and re-watering. PHYSIOLOGIA PLANTARUM, 2014, 151(4)
- 10. Ke, Xiwang; Yin, Zhiyuan; Song, Na; Dai, Qingqing; Voegele, Ralf T.; Liu, Yangyang; Wang, Haiying; Gao, Xiaoning; Kang, Zhensheng; Huang, Lili. Transcriptome profiling to identify genes involved in pathogenicity of Valsa mali on apple tree. FUNGAL GENETICS AND BIOLOGY, 2014. 68
- 11. Wang, Biao; Li, JingWei; Zhang, ZhiBo; Wang, RenRui; Ma, YanLi; Blystad, DagRagnar; Keller, E. R. Joachim; Wang, QiaoChun. Three vitrification-based cryopreservation procedures cause different cryo-injuries to potato shoot tips while all maintain genetic integrity in regenerants. JOURNAL OF BIOTECHNOLOGY, 2014, 184
- 12. Zhou, Yixuan; Zhang, Xiaoling; Ren, Bo; Wu, Bin; Pei, Zhichao; Dong, Hai. S-Acetyl migration in synthesis of sulfur-containing glycosides. TETRAHEDRON, 2014, 70(35)
- 13. Gao, Jin; Li, Pengmin; Ma, Fengwang; Goltsev, Vasilij. Photosynthetic performance during leaf expansion in *Malus micromalus* probed by chlorophyll a fluorescence and modulated 820 nm reflection. JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY, 2014, 137
- 14. Bai, B.; Du, JY.; Lu, QL; He, CY; Zhang, LJ; Zhou, G; Xia, XC; He, ZH; Wang, CS. Effective Resistance to Wheat Stripe Rust in a Region with High Disease Pressure. PLANT DISEASE, 2014, 98(7)
- 15. Yan, Qin; Hou, Hongmin; Singer, Stacy D.; Yan, Xiaoxiao; Guo, Rongrong; Wang, Xiping. The grape VvMBF1 gene improves drought stress tolerance in transgenic *Arabidopsis thaliana*. PLANT CELL TISSUE AND ORGAN CULTURE, 2014, 118(3)

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