#### AOCABFE NEWSLETTER

http://www.AOC-web.org

Association of Overseas Chinese Agricultural, Biological and Food Engineers 海外华人农业、生物与食品 工程师协会(AOCABFE) IMPACT

#### VOLUME 14 ISSUE 2

Dear AOC members and friends,

#### MARC<u>H 31 2015</u>

### **PRESIDENT'S MESSAGE**

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I hope you all celebrated a good Chinese Spring Festival last month and are embracing the Year of Goat with a good spirit. As a Chinese proverb goes, the whole year's work depends on a good start in spring. The spring is just around the corner—it is time for us to make a good plan and get a head start for this year.

We will elect our first AOC Fellows by this summer. As a professional society with almost 15 years of history, the AOC Fellow program is finally enacted after a couple of years of discussion and development. Under the leadership of Dr. Hong Li (AOC Vice President), AOC Fellow Nomination Form and Guidelines for Nomination have been developed and approved by the AOC board earlier this month. As stipulated in the guideline, AOC Fellow is "an honor conferred for exceptional achievement by a Member of the Association...with a minimum of 10 years as a Member in AOCABFE". We encourage you to nominate your deserving colleagues for this prestigious recognition and submit your nomination by May 15 to Dr. Zifei Liu (AOC Secretary).

We are pleased to offer a new award opportunity for our student members: a grant proposal competition. Under the leadership of Dr. Liangcheng Yang (with assistance from Dr. Fuqing Xu), guidelines for this student graduate proposal competition have been developed and published in this issue of IMPACT. The goal of this program is to provide our AOC student members with an experience to write grant proposals and an opportunity to win a grant. A \$500 cash award could be used for students' professional develop-



ment, such as attending the ASABE meeting. The experience could also be invaluable for students who aspire to develop their career in the academia where an experience of writing and winning a grant could give you a leg up. Student members, if you want to take advantage of this new program, please submit your proposal by June 10<sup>th</sup>.

In addition to these new opportunities, we still have our traditional programs to recognize excellence for our AOC regular members: Early Career Award, Distinguished Career Award and Outstanding Service Award. Please submit your nominations to Dr. Lingying Zhao (Past President) and the Award Committee will review the nomination and select award winners. AOC also recognizes student achievements with Graduate Scholarly Achievement Award, Graduate Leadership and Service Award, as well as the Student Paper Competition. Please submit your nominations and PAGE 2



competition entries to Dr. Naiqian Zhang (Student Advisor) before the deadline.

AOC institutional membership is an important fund raising initiative of AOC. We are glad to announce that due to the effort from AOC Foundation Director Dr. Yubin Lan, our first institutional member was recruited! At the same time, I am working with Dr. Lingying Zhao to develop the Application Form and a brochure that outlines the benefits of being an institutional member. These documents will be available on our website soon and we hope more institutions will become AOC institutional members by the end of the term of this Board.

The AOC annual business meeting and banquet in New Orleans is being planned by Dr. Hong Li. There is one notable change of this year: unlike past years, the business meeting and banquet will be held on Tuesday, July 28, instead of Monday. The 2015 China Exchange Forum is under planning by President-elect Dr. Lie Tang. The forum is organized under the theme of "Extending the Frontiers of Agricultural and Biological Engineering". We expect to see a successful Sino-US exchange forum in research, education, and outreach.

Our exciting programs will not be successful without adequate funding support. Fund raising is a top priority for AOC. We would like to engage as many members and friends as possible, including past presidents, senior members, and friends of AOC to help us recruit more institutional members and get more donations.

With good planning in spring, we hope it will be a fruitful year for AOC.

Best wishes,

Changying Li

Changying Li President of AOC 2015-2016

"You have got to aim high and see where you land." -Nigel Harman

### AOCABFE FELLOW Instructions for Submitting Fellow Nominations

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#### Characteristics of a Fellow

"A Fellow of the Society is an honor conferred for exceptional achievement by a Member of the Association in any one or more of the following areas research, technology development, technology transfer, teaching, extension, consultancy, senior administration and communication, which advance the profession of agricultural, food, or biological engineering in its broad application and a minimum of 10 years as a Member in AOCABFE."

#### **Elements of Nomination**

To nominate an AOCABFE Member for the Grade of Fellow, the initiating sponsor shall provide AOCABFE executive board with the information outlined below by <u>May 15</u>. Qualifications for Fellow are described in the Bylaws and Rules of AOCABFE, Article B5, Qualifications for Admission, Paragraph 3 (see <u>http://www.aoc-web.org/constitution.html</u>)

The Nomination Form is to be completed and converted to a PDF file and submitted to AOCABFE executive board as an e-mail attachment to the attention of the AOCABFE executive board -<u>aoc.impact@gmail.com</u>. <u>The maximum length of the completed nomination form is four (4) pages (10 pt. or</u> <u>larger font)</u>.

Please use the Nomination Form for submitting the application. The form completed by the nominator, and five (5) letters of support. Please follow the instructions for the letters of support described below. The support letters may be sent with the Nomination Form as a PDF file or may be sent separately to the attention of AOCABFE executive board –<u>aoc.impact@gmail.com</u>.

<u>Each letter of support</u> is also to be submitted as a PDF file and sent as an email attachment to the attention of the AOCABFE executive board – <u>aoc.impact@gmail.com</u>. The letters of support need to include the authors name, work affiliation, address, phone number, e-mail address.

All e-mailed nomination forms and letters of support sent to AOCABFE executive board must have a send time before midnight of May 15.

#### Letters of Support

The letters of support are to be prepared by those who are broadly representative of the profession insofar as technical interest, occupation and professional responsibility are concerned. The supporting letters shall relate the writer's personal knowledge and evaluation of the candidate's achievements, recognitions and professional activities. Letters are limited to a maximum length of two pages (10 pt. font or larger). The following guidelines are provided for developing a well-structured letter of support.

#### DO INCLUDE in the Letter of Support:

- ⇒ First the author is to briefly state his/her own background, credentials, current employment and the employment most applicable for the relationship with the nominee.
- ⇒ Summarize personal knowledge about the nominee and the circumstances under which the nominee was known, including the length of time the author has known and/or worked with the nominee.
- $\Rightarrow$  Focus on the unique contributions that the nominee has made to the profession.

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⇒ Describe the nominee's personality, work ethic and teamwork skills, particularly in relationship to professional contributions made by the nominee.

 $\Rightarrow$  Cover each point of support clearly, but as concisely as possible.

 $\Rightarrow$  Keep the letter focused and make it no longer than two (2) pages (10 pt. font or larger).

 $\Rightarrow$  Each author is to provide complete author contact information and be on official stationary where possible.

#### DO NOT INCLUDE in the Letter of Support:

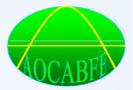
- $\Rightarrow$  Do not restate information that is already included in the completed nomination form.
- $\Rightarrow$  Do not describe participation in religious organizations or political parties.
- $\Rightarrow$  Do not exceed the specified maximum length of the letter.
- $\Rightarrow$  Do not include information obtained from someone else about the nominee.

#### Notification of Election

The nominator of the Fellow nominee shall be notified by AOCABFE executive board after the nominee has been recommended by the Fellows Committee and elected to the Grade of Fellow by the AOCABFE executive board. If the nominee is not selected in the first year of consideration, the nominee will be considered by the Fellows Committee for two additional years. AOCABFE executive board will notify individuals elected to Fellow. News releases and publicity will be issued at the time of the Annual Meeting at which time the newly-elected Fellows will be accorded special recognition.

#### Procedure in Case of Death of Nominee

If a Fellow nominee should die after the nomination is submitted to AOCABFE executive board, that nomination will be considered as if the nominee were still alive with the nominee remaining eligible for election to Fellow for the two year period mentioned above in addition to the first year of consideration. Nominations of deceased AOCABFE members for Fellow cannot be accepted.



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#### **GRADE OF FELLOW**

(Nomination due by May 15)

#### AOCABFE: The Association of Overseas Chinese Agricultural Biological Food Engineers

#### NOMINATION FORM

PRIVILEGED INFORMATION

Note: This form, along with the 5 letters of support will provide the only information used for the evalu ation of your candidate. The form must be completed in a maximum of 4-typewritten pages (10 pt. font or larger).

1 Candidate Name (first name, middle name or initial, last name), Address, Phone Number, E-mail Address and Years of AOCABFE Membership:

2 Primary Employment Position and Institution/Company:

- 4 Education (list all degrees earned, dates, major fields, and institutions):
- 5 Areas of Specialization:
- 6 Specific Outstanding Technical and Professional Accomplishments and Contributions Meriting Election to the Grade of Fellow. Examples:

Publication of important, original engineering or engineering-related papers, books or inventions Technical direction with evidence of accomplishment of important engineering or engineeringrelated work

Creative contributions to the advancement of the profession

Establishment or furtherance of important engineering or engineering-related courses or significant contributions to engineering or engineering-related extension

Organizational or technical leadership which has motivated or developed the application of engineering or engineering-related principles

Describe the impact of the work locally, nationally and internationally in areas such as the economy, industry, education or practice.

(Please include dates and limit to a maximum of 600 words)

- 7 Record of Professional Work Experience (list principal positions and describe primary responsibilities for each; include dates):
- 8 Contributions of Record

Contributions related to publications: brief description of up to 10 of the most significant published contributions, including books, book chapters, conference proceedings, refereed journal articles, patents, other publications. (list complete title, all authors, source, and date for <u>a maximum of ten (10) publications</u> of most significant impact) And/or **Contributions related to solutions:** categorized as appropriate -- i.e., products designed, guides developed, engineering projects completed, standards developed, etc. (give brief description of up to ten (10) most significant contributions)

- 9 Principal Technical Society Membership (including grades) and Activities, and Other Noteworthy Pertinent Accomplishments in Engineering, Technical Editing, Engineering Standards Development and Public Service (boards, committees, consultantships, important offices held and contributions to society):
- 10 Professional Recognition (honors, awards, prizes, honorary degrees; give specifics):

Nominated by:	* <b>References</b> – List five (5) references. All refer- ences must submit individual letters of support.			
	1.			
Name		Name	Work Affiliation	
	2.			
E-mail address		Name	Work Affiliation	
	3.			
Affiliation and telephone number		Name	Work Affiliation	
	4.			
Mailing Address		Name	Work Affiliation	
	5.			
City, State, Zip Code, Country		Name	Work Affiliation	

\* Note: Refer to GRADE OF FELLOW Nomination Instructions for information on Letters of Support.

C: AOCABFE Fellow Nomination Form – March 2015

Date

# **Call for Nominations**

### 2015 AOC Achievement and Service Awards

It is time again to nominate your colleagues who have made outstanding achievement in their professional career and service to our professional society. AOC currently has three awards as listed below. Nominations for the AOC awards should be submitted to Dr. Lingying Zhao at **zhao.119@osu.edu** by **May 31, 2015.** 

#### 1. Early Career Award

**Purpose**: this award is to recognize outstanding career achievement by a young AOC member in the profession of Agricultural, Biological and Food Engineering. The award is to honor achievement through education, research, innovation, development, extension, consulting, administration, international collaboration, and other professional activities.

**Eligibility**: the recipient shall be a member of AOC with good standing and under the age of 45. The recipient shall have made noteworthy contributions of achievement in the areas described above under "Purpose of the Award."

### 2. Distinguished Career Award

**Purpose**: this award is to recognize distinguished career achievement in the profession of Agricultural, Biological and Food Engineering. The award is to honor achievement through education, research, innovation, development, extension, consulting, administration, international collaboration, and other professional activities.

**Eligibility**: the recipient shall be a member of AOC with good standing. The recipient shall have made noteworthy contributions of achievement in the areas described above under "Purpose of the Award."

### 3. Outstanding Service Award

**Purpose**: this award is to recognize exceptional services that contribute to, and enhance the mission of the AOC.

**Eligibility**: the recipient shall be a member of AOC with good standing. The recipient shall have made exceptional contributions to organizing AOC conferences, publications and other activities.



### AOC BOARD MEETING

- TIME: 4pm EDT, 12/05/2014
- ATTENDEES: Changying Li, Fuqing Xu, Hong Li, Kai Liu, Lei Zhu, Liangcheng Yang, Lie Tang, Lingying Zhao, Zhiming Qi, Zifei Liu.

1. Dr. Changying Li, AOC President called the meeting to order at about 4:10pm EDT. September AOC Board meeting minutes were approved.

2. Dr. Zhiming Qi led the discussion on the content of the next issue of IMPACT. The targeted publishing date is around January 10, 2015.

3. Dr. Zifei Liu introduced the update of AOC Website. Dr. Lingying Zhao suggested putting faculty and student award information on the web.

4. Dr. Hong Li led the discussion on AOC honorary members and/or Fellow membership proposal. Dr. Lingying Zhao suggested the number of Fellow elected in the coming year can be two, and the ASABE fellow nomination form can be used as a reference.

5. Dr. Changying Li reviewed the past professional/student development seminars/webinars. Hanwu is planning a new webinar on resume (the first seminar "Making your resume shine" in January). Liangcheng Yang agreed to help Hanwu for development of the seminars/webinars. Student email list can be used for announcement of future seminars/webinars. Three webinars are expected to be planned and delivered between January and June 2015. Changying will check whether the Blackboard system is suitable (in terms of number of participants) for the webinar.

6. Dr. Lingying Zhao led the discussion on the benefit of AOC institutional membership and proposed to develop a brochure for membership recruitment. She will work on the brochure and Changying will provide a Letter from AOC President.

7. Dr. Changying Li led the discussion on fund raising. Changying suggested starting a personal donation campaign. Dr. Lingying Zhao suggested increasing the current membership fee of \$20. Dr Liangcheng Yang suggested reviewing and updating the membership information on website. Liangcheng will be sending an email to AOC members and polling them regarding the membership fee. Membership fee will be discussed again in our next board meeting. Changying will contact Dr. Yubin Lan (Foundation Director) to get him involved in these activities.

8. Kai Liu updated student activities. Amount and number of student awards have been increased.

9. Dr. Changying Li reviewed activities on China engagement. A platform is needed to encourage AOC members to engage with universities in China and provide seminars when visiting China. Changying will contact Dr. Yanbin Li on the potential Chinese university hosts, and Dr. Yingkuan Wang on the International Forum in the CSAE biannual meeting.

10. Dr. Changying Li suggested that we form an AOC advisory board. There are some issues such as change of bylaw need to be investigated before we further discuss this.

Dr. Lie Tang reviewed topics on China Exchange and suggested broader themes. The theme needs to be finalized by March.
Dr. Hong Li updated the information on AOC 2015 Business Meeting and Award Banquet. Number of attendees is expected to be 150 to 200. A form may need to be submitted to include the China Exchange and Business meeting in ASABE program. Dr. Changying Li suggested the time for the China Exchange and Business meeting needs to avoid confliction with other major events (Tuesday may be better than Monday).

13. The meeting was adjourned at about 6:15 pm EDT.

## AOC-SAC BOARD MEETING

#### TIME: 8pm EDT, 03/12/2015

ATTENDEES: Fuging Xu, Kai Liu, Yu Jiang, Yin Bao, Junhua Tong, Long Lin, Rui Xu

#### • Call for meeting and propose the agenda for approval

Fuqing called for meeting and all members approved the meeting agenda.

#### • Updates of SAC activities:

#### **IMPACT** Newsletter (Long Lin)

Long Lin gave a quick update of IMPACT Newsletter to the committee with following two main information. First, the new issue of IMPACT will be published at the end of this March. Second, as part of 2015 ASABE and AOC annual meeting, student paper competition is calling for papers, the notice will be posted in the Newsletter.

#### Facebook (Yu Jiang), Email group (Yin Bao, Kai Liu)

Jiang Yu shared his ideas on how to manage and improve our Facebook. He thought our Facebook should be updated more frequently with more useful information to the students, such as the call for paper competition, RA/TA opportunity. Yin suggested we do also need to include more information in the email group. Junhua suggested that we could post recent academic activities of AOC members to both Facebook and email group. Kai introduced that all members are able to post information to the email group, anyone who would like to share with others should be encouraged to post information.

#### Webinar (Fuqing Xu)

New Webinar event will hold on 1 pm, March 26. Topic (tips on writing resume), Speakers (Hanwu Lei, Liangcheng Yang). Fuqing told she will contact with organizer and decide details regarding this event. We will need to provide the flyer on this event. Yin and Yu will post the flyer via email group and Facebook page, respectively. Fuqing Xu, Xianhui Zhao, Yin Bao, Yu Jiang will follow up this event.

#### • Discussion on new AOC student awards

Fuqing Introduced current situation that AOC does want to award more excellent students with various aspects including academic performance, scientific publication, leadership and service. However, the funding is limited as usual. Currently, AOC awards three kinds of student awards (paper award, academic award, leadership and service award). During the discussion, four new awards were proposed.

Student proposal award: Poster award Travel award Oral presentation ward (high priority)

During the discussion, although four new potential awards were proposed, few of them were suggested or agreed by all committee members. The comments of proposal competition include: 1) too time-consuming; 2) advisers may not suggest their students to put research proposals into competition for the confidential purpose; 3) in general, a proposal competition would be helpful for students, but need more considerations about the details. As for the poster award, concerns are that the quality might be not as good as oral presentations and some research directions don't usually make posters. For oral presentation competition, participants need take video for their presentation during the ASABE conference, then use Dropbox or other methods to share the videos to judges for evaluation.

#### Discussion on new member development

Fuqing shared her idea on how to introduce more student members. She thought we should have some incentives/award for introducing new members. AOC could prepare some gifts for the members who invite new member to our society. The gifts can be any small anniversary gifts such as AOC T-shirt.

#### • Others

Rui Xu will look for a Chinese Restaurant for SAC Student banquet during ASABE meeting. He will contact Dr. Hong Li for this event, and both Rui Xu and Fuqing Xu will follow up this. Fuqing will email Dr. Hong Li that Rui will assist him to arrange the dinner during the conference. Next SAC board meeting will hold at early June, and will discuss issues regarding the preparation of events during the conference.

# The 2014 – 2015 AOC IMPACT Editorial Board Call for News & Activity Reports

The 2014-2015 IMPACT editorial Board invites you earnestly to submit of news and activity reports related to ASABE and AOC. Please send your write-up and/ or picture news to the Editorial Board at <u>aoc.impact@gmail.com</u>. The IMPACT Board will work with you to put your news into the publication. It is our publication and it is your publication. We sincerely thank each and every AOC members for their support!

# 征稿启事

2014-2015 IMPACT 编委会真诚邀请您踊跃投稿。任何 ASABE 和AOC有关的新闻、活动、图片等均欢迎。 如您有稿件,请寄到<u>邮箱aoc.impact@gmail.com</u>。 我们将与您通力合作,发表您的稿件。 这是我们的出版物,也是您的出版物。 诚挚感谢您的鼎力支持!

### **2015 AOC STUDENT PAPER COMPETITION AND**

### 1. AOC Student Paper Competition

If you have submitted a paper to the 2015 ASABE Annual International Meeting (AIM) and are inter- paper number. ested in participating the AOC student paper competition, please send your paper and the "entry form" (http://www.aoc-web.org/ Documents/SAC/ Entryform 2010.docx) to Dr. Naigian Zhang (zhangn@ksu.edu), AOC Student Advisor, no later than issued with certificates and cash April 30, 2015.

The judging criteria\score sheet that will be used to evaluate your papers can be found at the AOC-SAC student award webpage (http://www.aoc-web.org/ Documents/SAC/Division% 20Criteria%20and%20Scoring% 20Sheet.docx).

The top five candidates will receive certificates as well as cash awards (\$300, \$250, \$200, \$150,

and \$100, respectively).

Please note that we only accept papers submitted for the 2015 ASABE AIM with an assigned

### 2. AOC Graduate Scholarly **Achievement Award**

dent members who made outstanding scholarly achievements. Two winners will be selected and awards of \$300 for each award. Check the website (http:// www.aoc-web.org/

studentaward.html) for the criteria web.org/studentaward.html) for and nomination procedures for the the criteria and nomination proceawards.

sor send your nomination to Dr. Naigian Zhang no later than July 1, nominated by ANY AOC member. 2015.

not have to be an AOC member,

neither does he/she have to be Chinese.

### 3. AOC Graduate Leadership and Service Award

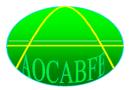
This award recognizes AOC student members who have excelled and demonstrated leadership on This award recognizes AOC stu- the activities of AOC. The winner can be either an individual person or a student group.

For this award, up to three winners will be selected. Each winner will receive a certificate and a cash award of \$300. Check the website (<u>http://www.aoc-</u> dures for the awards. The deadline Please have your major profes- for nomination is July 1, 2015.

Note that this award can be That is, the nominator does not Note that your nominator does have to be a faculty member.

To join AOC, simply download the application form from http://aoc-web.org/Download/ membershipform.pdf, and send the form, together with a \$5 check (payable to AOCABFE), to Dr. Yufeng Ge, the AOC treasurer (yge2@unl.edu).

Please note that being physically present at the ASABE AIM in New Orleans, Louisiana, USA is not required for any of these awards. In other words, you may submit an entry to the competition or be nominated for an award even if you do not plan to attend the 2015 ASABE AIM.





### Student Research Proposal Competition March, 2015

#### **Program description**

This is an invitation to submit research proposals to AOC student research proposal competition program. 2 proposals will be awarded this year. Each winning proposal will receive \$500 cash prize. Awardees will be recognized at the AOC banquet this summer in New Orleans, Louisiana. AOC encourages awardees to use the award for professional development.

#### **Purpose**

- To provide graduate students with an opportunity to gain experience with research methods in food, agricultural, and biological engineering, in environmental sciences, and in related disciplines.
- To introduce graduate students to the grant-writing process.
- To stimulate collaborations across disciplines among graduate students, preparing them for future interdisciplinary work.
- To identify graduate students who have potential in research careers.

#### Eligibility

To be eligible for this program, students must:

- \* Be an AOC student member. Visit http://www.aoc-web.org/ to learn more about becoming a student member.
- \* Be enrolled as a graduate student.
- \* Students are eligible to receive only one prize at a time.
- \* Each proposal allows only one student participant.

#### <u>Scope</u>

Broad topics that include but are not limited to agricultural and biological engineering, food science, and environmental science and engineering.

#### **Deadline**

Send all documents in one single pdf file to Dr. Liangcheng Yang at lyang@ilstu.edu by **June 10**, 2015. All documents should be written in English.

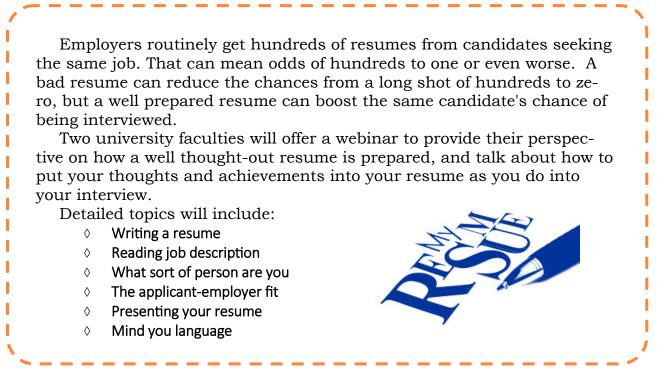
#### **Evaluation Process**

Each proposal will be evaluated by three AOC faculty members using a standard evaluation form. Results will be announced at the AOC banquet.

For more information, visit http://www.aoc-web.org/studentaward.html

### AOC Webinar -- Shining Resume

-Make your Resume a Sales and Marketing Document



Please join us in a Blackboard Connect Meeting--AOC Webinar

Summary: AOC webinar is being developed to promote professional growth of AOC members. Through AOC webinar, you can listen success stories and interact with successful peer professionals. It also provides networking opportunities with fellow students, faculty, and industry professionals all around the world.

Invited By: Dr. Hanwu Lei (hlei@wsu.edu) and Dr. Dr. Liangcheng Yang (lyang@ilstu.edu)

When: 04/30/2015 1:00 PM - 2:00 PM Time Zone: (GMT-05:00) Eastern Time (US and Canada)

To join the session, please click on the link below within 30 minutes of the specified time: <u>https://sas.elluminate.com/site/external/jwsdetect/meeting.jnlp?</u> <u>sid=2013048&miuid=6D0732ACA285C1588DA7CA470BAE11C9</u>

To invite others to join the session, e-mail the following link: <u>https://sas.elluminate.com/m.jnlp?sid=2013048&password=M.F2480FF8174D6BFEF124E7E58B6C33</u>

To add this Blackboard Collaborate session to your calendar, please click the following link: <u>https://sas.elluminate.com/mvc?sid=2013048&miuid=6D0732ACA285C1588DA7CA470BAE11C9</u>

### **AOCABFE Seeks Nominations for the Board Members and President-Elect**

Dear AOC members,

Are you determined to make a difference in all that you do? Do you know someone who is? AOCABFE is seeking motivated, self-starters to serve on its Board. Please send your nomination with candidate's name and contact information, or self-nomination with a biosketch and statement of commitment to Dr. Lingying Zhao at <u>zhao.119@osu.edu</u> by May 31, 2015.

Thank you for your continued support.

Changying Li, President Lingying Zhao, Past President



# SPECIAL TOPIC

2,000,000,000: That's how many times a documentary about China's massive air pollution problem has been viewed online since the weekend.

The filmmaker, **Chai Jing**, was an investigative reporter and anchor at state broadcaster China Central Television. Chai used \$160,000 of her own money and one year to make **Under the Dome**, the same title as a Stephen King novel. Chai asked some tough questions about the politics and economics behind the smog, but often with a gentle, funny tone. She interviewed local officials who protect polluting industries because those industries created jobs and pay taxes. Chai didn't explicitly criticize China's model of economic development. Nor did she call for China's leaders to be held account able for their policies. by Lei Zhu, Minliang Yang, Xianhui Zhao

"Ten years ago, I asked what that smell in the air was, and I got no answer," she said. "Now I know. It's the smell of money." In the film, Chai traveled to Los Angeles and London . She concluded that China can follow their example, and that its citizens should get involved. "The strongest governments on earth cannot clean up pollution by themselves," she argued. "They must rely on each ordinary person, like you and me, on our choices, and on our will."

### -REGARDING TO AIR POLLUTION IN CHINA

In this issue of IMPACT newsletter, we would like to write this special article to help people know more facts about air pollution and environment protection.

We interviewed some local professors and researchers, who are working or doing research in air quality. Here we would love to share the interview with **Dr. Erin Cortus** from *South Dakota State University* and **Chao Wang** from *Iowa State University*.



Source: http://geekalabama.com/tag/tv-reviews/

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#### Dr. Erin Cortus Assistant Professor/Extension Specialist-Environmental Quality

South Dakota State University

#### Areas of Study/Academic Interests:

Livestock housing and environment; Gas and dust emission measurement from livestock facilities; Air quality and environment in livestock facilities

#### Chao Wang PhD candidate in Iowa State University

She was majored in Environmental Science in Dalian University of Technology as undergraduate, and continued her degree in Environmental Science for her master and PhD period. As a top graduate student in the department, she regarded environmental problems to be a time-consuming fight.

#### Q. What is air pollution? How bad is air pollution?

A. (Chao): Air pollution is talking about those hazardous substances floating in the air, such as dust, soot, and some chemical pollutants, which may be radioactive, carcinogenic, or have other toxic effects. These chemicals will be directly harmful to people or may become deadly when they react with other chemicals in the atmosphere.

## Q. What is "SMOG"," PM10", "PM 2.5", what is the difference?

"It is urgent, yet controllable. As long as determined, the APEC blue will stay in China." —-Chao Wang A. (Erin): PM10 and PM2.5 is the amount of particulate matter with effective aerodynamic diameters less than 10  $\mu$ m (micrometer) or 2.5  $\mu$ m, respectively. Particulate matter can include dust, dirt, soot, smoke and/or liquid. The US Environmental Protection Agency describe ground-level ozone as smog.

#### Q. What are the major pollutants that caused the air pollution? And where do they come from?

A. (Erin): I work predominantly in the agricultural air quality field, and the aerial emissions that come livestock and poultry operations. From that perspective, the major aerial pollutants emanating from the animals and manure are ammonia, hydrogen sulfide, volatile organic compounds, greenhouse gases and particulate matter. Odor is also a major air quality issue for livestock production.

A. (Chao): The most common chemical in air pollution is sulfur dioxide. Others include nitrogen oxides, ozone,

volatile organic compounds, carbon dioxide, carbon monoxide, methane, and heavy metals (i.e., lead). Most of the chemical pollutants result from burning fossil fuels by utilities, industries, and motor vehicles. Besides chemicals, the dust from agricultural activities and construction work sites is also a big component of air pollutants.

## Q. What are the current research hotspots in eliminating air pollution?

A. (Erin): Research on mitigation strategies tends to focus on ammonia and particulate matter reduction, but there is more interest in aerial pathogens.

A. (Chao): The air pollution management and assessment, especially for urban scale, is critical now in order to establish the proper air quality modeling, evaluation, and control strategies. In addition, clear energy is also an essential research topic to effectively control the air pollution from the perspective of resource.

# Q. What are the health consequences of air pollution? Is air pollution becoming an extreme health crisis in China?

A. (Erin): The health consequences are dependent on the type of pollutant. In the agricultural air quality field, the typical health consequences are with the respiratory system.

A. (Chao): PM-10 and/or PM-2.5 are monitored in most states because the small particulates are able to penetrate and damage people's lungs and cause the worst hearth



problems. Sulfur dioxide and nitrogen oxides are the typical air pollution chemicals generating acid rain by reacting with water vapor. The acid rain, apparently, will acidify the soil, water resources, plants, and therefore human health. Furthermore, the acidic components will cycle globally and make the safety issues spread across international borders. The greenhouse gases (carbon dioxide, methane, nitrous oxide, chlorofluorocarbons) are the major cause of global warming, posing a serious threat to climate change and human health.

## Q. What is currently being done at the United States or international level to tackle air pollution?

A. (Erin): In the United States, the Clean Air Act is the federal regulation that sets emission limits to maintain ambient air quality standards for specific pollutants. There are also reporting rules, like the Greenhouse Gas Reporting Rule to document gas production rates.

A. (Chao): Detailed and specific air quality management regulations and legislations have been established by USEPA for air pollution control, including air quality gold setting, control strategies, monitoring, public participation, air quality modelling, human & environmental assessment.

# Q. What are the existing air quality standards in China? Are they too weak compared to the international standards?

A. (Chao): Back to 1982, the air quality standard (TSP, SO<sub>2</sub>, NO<sub>2</sub>, lead, Bap) set by Chinese Environmental Protection Ministry were stringent. However, the regulations were updated with less stringent probably due to the difficulties to implement the old standard. The limit of PM2.5 was set in the new air quality standard just by 2012 and the new standards will take effect nationwide in 2016. Instead of standards setting, more attention should be put on how to effectively force local governmental officials to take measurement and publish the accurate information to the public. Only starting from this point, air pollution reduction and

management could be possible in the future.

# Q. What are the challenges countries face, and what obstacles are preventing assistance in improving air quality?

A. (Erin): In most instances, air pollution abatement technologies are adopted voluntarily (versus forced), but have fairly significant costs associated with the technology. The freedom to operate, decreased setbacks are some perceived benefits with financial gains, but difficult to calculate. Adoption of new technologies has and will continue to be a challenge.

A. (Chao): Although air pollution has been dramatically reduced since 1970 under the Clean Air At, the common pollutants are harmful even at extremely low level, which increases the challenges from both technical and economic perspectives in the future air pollution control. The second challenge would be the global climate issues caused by long-lived greenhouse gases, which endanger the human health and welfare of future generations.

# Q. What does China could learn from the other developed countries like EU and United States?

A. (Chao): The role of science and technology is always important, however, the cooperation of local governments is also critical to implement specific plans by perfectly balancing the standards and local environment to effectively reduce the air pollution to the lowest level. Moreover, public participation also should be underlined. The public has the rights to know the truth and is responsible for protecting their own home.





Dr. Erin Cortus

## Interviewing with SAC president: Dr. Fuqing Xu



Dr. Fuqing Xu is a post-doctoral researcher in Dr. Yebo Li's Bioproducts and Bioenergy Research Lab at the Ohio State University. She completed her Ph. D. degree in Environmental Science from the Ohio State University in 2014, and her bachelor's degree in Environmental Science from Wuhan University, China in 2009. Her areas of research include bioenergy, anaerobic digestion, and waste management.

She has published more than 10 research papers. She was also the First Place winner of the ASABE Boyd-Scott Graduate Research Award, and First Place winner of AOC Student Paper Competition in 2014. She served as the SAC Vice-Chair during 2013-2014, and the SAC Chair during 2014-2015.

#### 记者: 芙清你好,非常感谢你在百 忙之中接受我们AOC杂志IMPACT Newsletter的采访。 请问你可以谈 谈对SAC发展的期望,或者本年度 将要展开的新活动吗?

芙清: SAC成立应该有十几年了, 我们有前辈们积累的好的经验和传统,也得到了老师们越来越大力的 支持,所以我希望SAC可以利用这些资源发展的越来越好。我现在对 SAC主要的期望和我努力的方向就 是能增加我们的影响力,鼓励更多的同学加入SAC,并可以给同学们提 供更多学术和择业方面的信息,创 造更多的机会让同学们丰富自己的 经历,提高自己的能力。

#### 记者:我知道你担任过SAC的副主 席,现在是SAC的主席,请问你可 以谈一下你是怎样培养你的领导能 力吗?

芙清:其实我从来没有认为自己是 领导者,我更多的认为自己是是一 个服务者,组织者,现在也是老师 和学生组织之间的桥梁。我对自己 的要求是首先多观察,多学习,勇 于参于,然后能够提出合理的建 议,并且尊重和吸纳大家的意见和 建议来把SAC做的更好。

### 记者:好像你很早就参加AOC的活动了,你可以说说你和AOC以及 SAC的故事吗?以及对新加入的会

### 员或者还没加入的同学有什么建议吗?

芙清: 我在美国读书的第一年就在 导师的介绍下参加了SAC的餐会, 不过一开始只知道是去吃饭的。当 时就觉得这个组织很不错,但是记 得那次饭店是分隔成了几个包间, 所以只见到同桌子的几个同学,而 且大家都更倾向于和自己同学校的 人聊天,聚会之后也没有更多的联 系。在后来的几年时间里,我一直 希望能让SAC成为一个学生相互结 识的平台, 并且在ASABE结束之 后能够继续自己的友谊。今年我想 尝试把学生按照参加的ASABE的 section来排座,这样也许你会发现 旁边的人名字很熟悉经常出现在你 看的文章里,或者刚刚听了他的 presentation很有兴趣继续交流。希 望以后SAC的新老会员们可以更紧

#### 记者:我注意到你在博士期间,发 了不少paper,请问你可以谈一下你 是如何做到的吗?

密的联系起来。

芙清:这个原因比较多。首先比较 特殊的是我是第一年做实验,第二 年去上课的时候把第一年的文章发 出来,于是就比很多第一年上课第 二年开始实验的同学快了一些。同 时我的导师也是一个很勤奋认真的 人,愿意去督促我的进度,并给我 必要的帮助。所以我每完成一个课 题就把文章发出来,没有积压到毕 业之后再写。另一个小原因是我从 大学二年级就开始做科研,本科毕 业前就已经发过两篇论文,所以在 科研方面已经有了一些的积累。最 后对于写论文,我的建议是在研究 的过程中就开始构思自己的文章, 积累资料,随时处理数据,这样在 课题结束后就能迅速总结并写出文 章。不过我觉得做研究的目的还是 对学术界和社会能够真正做一些贡 献,并在这个过程中不断提升自己 的能力。所以希望论文还不多的同 学也不要太着急,要专心做出好的 研究。

by Long Lin

### 记者:我知道你去年获得了ASABE Boyd-Scott Graduate Research

Award 和AOC Student Paper Competition的第一名,请问你可以谈谈 你的感受,以及以过来人的身份给 师弟师妹们一些建议吗?

芙清:这虽然我是第一次参加这两 个比赛,但其实我早在两年前就已 经知道这两个奖并且计划毕业之前 用自己最好水平的文章去参加评 比。虽然农业食品生物这个领域很 大学生也很多,但是经历了各个环 节之后我发现这些比赛其实并不像 我们想象的那么难。首先我发现很 多人都不知道这两个奖或者觉得很 难就没打算参加,然后我又发现一 大部分人都没能在deadline之前把文

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之前把文章准备好,同时又可能有些 人由于签证或路途遥远不能去开会, 最后我发现和我一起比赛的好几个人 都准备不足,出现了超时等问题。但 是因为我做了充分的准备,也邀请了 导师和其他老师听我rehearsal,给我 提建议,结果虽然presentation本来不 是我的强项,但是也完成的不错。所 以这两个奖也算是天时地利人和的结 果。希望以后的师弟师妹们能够积极 的去发现机会,并尽力做最好的准 备,然后你可能会发现仅是这种积极 的态度就已经让你超越了大部分对 手。

### 记者: 你当初是如何选择你的专业的? 或者从事的方向?

芙清:我从小就喜欢看人与自然动物 世界这一类的节目,爸爸给我买的很 多课外书也是自然科学类的,所以一 直对环境问题比较感兴趣,本科的时 候就报考了环境科学专业。大学二年 级的时候想尝试一下科研,就联系了 系里的老师去实验室帮忙。实验室人 少,所以老师就给了我们课题自己去 做,结果我发现我还是很喜欢这种生 活的,所以就来到美国读博士。我感 兴趣的方向其实很多,水大气固废生 物我都很感兴趣。当初选择现在的方 向是因为各种机缘巧合吧,所以我也 不会因此限制自己以后的方向,还是 想继续尽量多学多做。

#### 记者:你能谈谈你平时的生活吗?你 平时有什么兴趣爱好?你是如何平衡 学习,工作,生活的?

芙清:我是信奉work hard, play hard 的人。我从小就喜欢运动,所以我几 乎每天都要花少则半小时,多则几小

时来跑步,打球。对很多人来说这可 能是一个比较大的时间投资,但是对 我来说运动其实是休息和放松。经过 一天的工作,我一般下午五点到七点 之间会很累,工作效率也非常低。这 个时间运动是一种refresh,洗个澡, 晚上的效率很高。运动过程中会见到 很多朋友,心情也很好。如果在户外 跑步我会用手机听一些有意思的书, 比如《明朝那些事》,在室内运动我 会看电视节目,最近在看《我是演说 家》,以前也看《康熙来了》。这样 让身体和精神都放松,又觉得充分利 用了时间。每个人都有自己的生物钟 和工作生活的习惯,找到适合自己的 节奏,就能过的开心。

记者:非常感谢你的分享。祝你工作 顺利!



# **Sichuan Academy of Grassland Science**



The Sichuan Academy of Grassland Science is a nonprofit research institution specializing in grassland science in the Sichuan Province. It was derived from the Northwestern Sichuan Grassland Workstation of Chengdu Institute of Biology of the Chinese Academy of Sciences. In 1978, the Sichuan Institute of Grassland was established after being approved by the provincial party committee. In 2005, it changed the name into Sichuan Academy of Grassland Science with the approval of provincial organization committee. by Tianjiao Zhang



# ACHIEVEMENTS

During the past thirty years, the Sichuan Academy of Grassland Science has hosted more than 240 national and provincial major research projects, including 51 national projects, 109 provincial projects, 91 bureau and the following projects. By the end of 2013, about 70 major scientific and technological achievements were awarded, including prizes of the National Science and Technology Progress Award, prizes of Provincial or Ministerial Science and Technology Progress Award, and Bureau Awards. Eight national pasture species and the Sichuan white rex rabbit, which is the only new strain in China, were cultivated. More than 70 national and local standards of grass and livestock have been formulated. More than 800 scientific papers and 22 technology monographs have been published on domestic and foreign journals.

Research base in Xinjin

# Research

The Sichuan Academy of Grassland Science is based within three regions in China (Aba Tibetan and Qiang Autonomous Prefecture, Ganzi Tibetan Autonomous Prefecture and Liangshan Yi Autonomous Prefecture. The academy mainly develops the application of technologies and conducts basic research, including the genetic breeding and utilization of grasses, protection and resource development of grassland ecological environment, genetic breeding and feeding management of herbivorous animal such as yak, Tibetan sheep and rabbits. These provide scientific and technological support for grassland ecological environment protection, sustainable livestock development and increase in revenue for farmers and herdsmen.



Sichuan Tibetan sheep stock field

**Research base in Hongyuan** 





**Research base in Hanchang** 

## **Faculty and Staff**

The Sichuan Academy of Grassland Science has 161 members, including 107 members in service and 54 retired members. Among them, the academy has five experts enjoying Special Government Allowances, four Sichuan Academic and Technology Leaders, two Sichuan Expert Appraisal Committee Experts, four Sichuan Outstanding Experts, four Sichuan Academic and Technical Leader Candidates, one Committee Member of the Eighth Ministry of Agriculture Science and Technology Commission, three Chief Scientists of National Agro-scientific Special Research in the Public Interest, two Subject Hosts of National Science and Technology Support Project, two Post Scientists of Modern Agricultural Technology System of Ministry of Agriculture, two comprehensive test station heads, one doctoral tutor, six master tutors, eleven researchers, twenty-four vice-researchers, more than three-six intermediate technicians, one doctor, four Ph.Ds, and twenty-four masters. Four major innovative research teams on pasture, grassland ecology, rabbit, sheep and yak have been formed.



HONGYUAN COMPREHEN-SIVE TEST STATION OF NATIONAL CATTLE AND YAK INDUSTRY TECHNOL-OGY SYSTEM



SICHUAN REX RABBIT STOCK FIELD

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### Assistant Professor Recruiting in University of Minnesota

The University of Minnesota's MnDRIVE initiative on Robotics, Sensors, and Manufacturing envisions the University of Minnesota playing an integral part in helping the state emerge as a robotics and automation leader, and as a contributor to the renaissance of domestic

manufacturing by providing critical innovations, education, and training in pertinent disciplines. The Department of BBE (www.bbe.umn.edu) is an internationally renowned academic unit with the core mission of sustainable use of renewable, agricultural and natural resources and enhancement of the environment.

(BBE) is seeking a **tenure-track faculty position in the areas of robotics and sensors for environmental management** for sustainable agriculture at the level of Assistant Professor with research and teaching responsibilities.

systems Engineering

The Department of Bioproducts and Bio-

Research	The candidate is expected to develop an internationally recognized research program in the area of sensing and robotics in sustainable agriculture and environmental management. A successful candidate will be expected to develop research in areas that supports Minnesota agriculture and natural resources. Collaborative research with various colleges and departments across the University including CFANS (i.e. Soil Science, Agronomy, Plant Pathology, and Animal Science) CBS (i.e. Ecology) and the College
Teaching	of Science and Engineering is encouraged. The teaching component of this position will include the development of basic and applied engineering courses (UG and GRAD) and their applications. The teaching may be lecture or e-based learning. Involvement in University Robotics team activities is encouraged. A demonstrated commitment to excellence in undergraduate and/or graduate teaching and advising is essential. This position is also expected to strive for excellence in academic advising for un- dergraduate and graduate students as a vital component of student development.
Qualification	Applicants must have a demonstrated excellent academic/industry record, and potential to be a world class leader in research and have a commitment to education. Required: A Ph.D. from a world-class University in an engineering discipline, with an agricultural, environmen- tal, biological, ecological, electrical, or mechanical background. Preferred: Research or industrial experience in aerial or terrestrial sensing or robotics with an interest in agri- cultural and/or environmental applications. Preference will be given to candidates with a demonstrated and relevant publication record or industrial experience; evidence of interdisciplinary research teamwork, and strong English
Application	Please apply online via the University of Minnesota Employment System: employment.umn.edu/applicants/Central?quickFind=127357. Applications should include <b>a cover letter</b> referencing the BBE Robotics, Sensors and Manufacturing faculty position, detailed <b>curriculum vitae</b> , <b>statements on teaching and research interests</b> , and a list of <b>three references</b> <b>with contact information</b> (including email addresses). Review of applications will begin <b>March 23</b> , <b>2015</b> and con- tinue until the position is filled. A successful candidate may be appointed as early as <b>August 30</b> , <b>2015</b> . During the interview process, applicants will be asked to describe their commitment, experience and approach to teaching and working with students, colleagues and constituents from diverse populations. Any offer of employment is contingent upon the successful completion of a background check.
ΙΜΡΑΟΤ	L





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