

Anastasia Mosquito
Control District
of St. Johns County



District Board Meeting
MARCH 14, 2019
Thursday at
5:00 P.M



**ANASTASIA MOSQUITO CONTROL DISTRICT
ST. JOHNS COUNTY**

PROPOSED AGENDA

**Thursday, March 14, 2019
5:00 P.M.**

Invocation and Pledge: Commissioner Howell

Consent Items: APPROVAL OF:

1. Treasurer's Report
2. Vouchers (*Cancelled Checks*)
3. Chemical Inventory
4. Minutes: Regular Board Meeting, February 14, 2019 at 5:00 P.M.
5. AMCA Annual Meeting Report (*Feb. 25 – March 1, 2019*)
6. Dr. Rui-De Xue to attend WHO Innovative Strategies for Vector Control Meeting (*June 11-13, 2019*)
7. NACCHO Contract Subaward Agreement
8. Budget Amendments (*if any*)

Unfinished Business:

1. Discussion on Manpower Numbers ~ *Dr. Rui-De Xue (10 min)*
2. Discussion and Approval of A & P Aircraft Mechanic Job Description ~ *Dr. Rui-De Xue (10 min)*

New Business:

1. Education Committee Meeting Report (*2-14-19 at 4:00 PM*) ~ *Commissioner Trish Becker (5 min)*
2. Discussion and Approval of Collaboration Grant application (CDC) for SIT ~ *Dr. Rui-De Xue (10 min)*
3. Discussion and Approval of Collaboration Grant Application (DACS) for Keystone Virus Survey ~ *Dr. Caroline Efstathion (10 min)*

Reports

1. Director
2. Attorney

Commissioner Comments:

Attachments: FOR INFORMATION PURPOSES ONLY

1. 16th Arbovirus Surveillance and Mosquito Control Workshop Program Agenda

CONSENTS

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

*Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner*

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

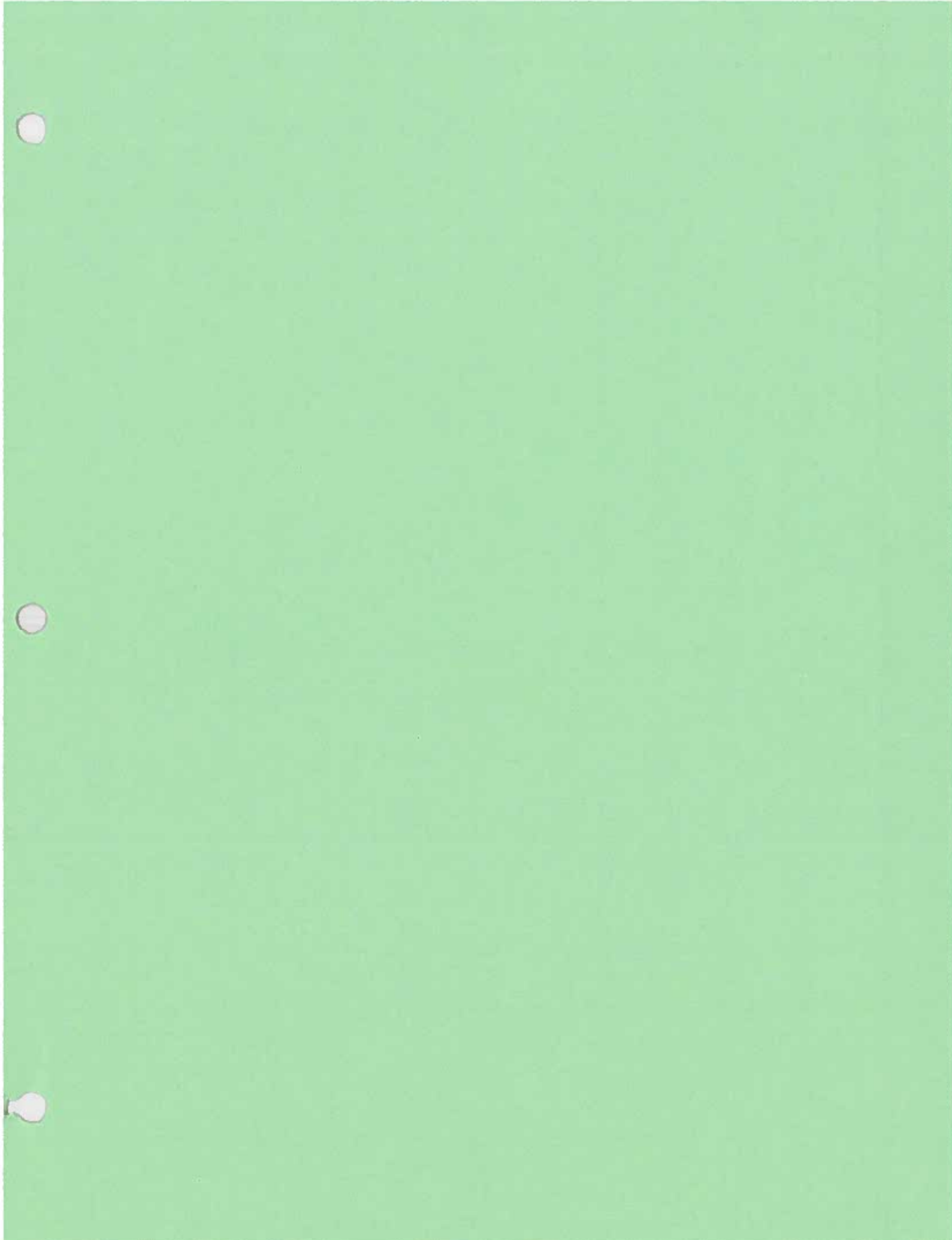
CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Treasurer's Report and Vouchers, Chemical Inventory, and Budget Amendments will be on the Board Table March 14, 2019.

Due to the Accountant being out the week the Board Books are being done March 4-7, 2019, the Treasurer's Report, Vouchers, Chemical Inventory, and the Budget Amendments, if any, will be completed upon his return on Monday, March 11, 2019 and will be put on the Board table for the March 14, 2019 Board meeting.

Thank you.



ANASTASIA MOSQUITO CONTROL DISTRICT OF ST. JOHNS COUNTY
CHEMICAL & FUEL INVENTORY
 MONTH OF JANUARY 2019

DISTRICT TOTALS

CHEMICAL DESCRIPTION (indicate lbs., gals. or ea.)	BEGINNING PHYSICAL COUNT	AMOUNT PURCHASED	TRANSFER IN	TRANSFER OUT	AMOUNT AVAILABLE	AMOUNT USED	ENDING "BOOK" BALANCE	PHYSICAL COUNT	OVER / (UNDER)
ALTOSID WSP EA.	16,180.00				16,180.00	86.00	16,094.00	16,094.00	0.00
ALTOSID XR LBS.	312.00				312.00	16.00	296.00	296.00	0.00
ALTOSID XRG LBS.	3,480.00				3,480.00	0.00	3,480.00	3,480.00	0.00
AQUABAC XT GALS.	317.63				317.63	35.00	282.63	282.63	0.00
AQUALUER 20-20 GALS.	460.60				460.60	0.00	460.60	460.60	0.00
B. t. i. DUNKS (Dognuts) EA.	329.00				329.00	59.00	270.00	270.00	0.00
COCO BEAR GALS.	183.42				183.42	6.77	176.65	176.66	0.01
DUET GALS.	245.75				245.75	4.75	241.00	241.00	0.00
MOSQUITOMIST TWO GALS.	451.50				451.50	0.00	451.50	451.50	0.00
NALED GALS.	750.00				750.00	0.00	750.00	750.00	0.00
NATULAR DT EA.	10,466.00				10,466.00	26.00	10,440.00	10,440.00	0.00
NATULAR XRT EA.	0.00				0.00	0.00	0.00	0.00	0.00
STRIKE PELLETS LBS.	44.00				44.00	0.00	44.00	44.00	0.00
SUSTAIN MBG LBS.	1,162.00				1,162.00	362.00	800.00	800.00	0.00
TALSTAR P GALS.	26.00				26.00	1.48	24.52	24.51	-0.01
GASOLINE GALS.	2,145.00	3,022.00			5,167.00	800.17	4,366.83	4,318.00	-48.83
TOTALS	36,552.90	3022.00	0.00	0.00	39,574.90	1397.17	38,177.73	38,128.90	-48.83

PREPARED BY: *[Signature]*
 REVIEWED BY: *Kary Starna*
 REVIEWED BY: *[Signature]*

DATE: 2/19/19
 DATE: 3/5/19
 DATE: 3/5/19

BASE=	38,128.90
Total	38,128.90

**ANASTASIA MOSQUITO CONTROL DISTRICT OF ST. JOHNS COUNTY
CHEMICAL & FUEL INVENTORY**

VALUE

MONTH OF JANUARY 2019

CHEMICAL DESCRIPTION (Indicate lbs., gals. or ea.)	PHYSICAL COUNT	ACTUAL COST PER LB/GAL/EA	TOTAL INVENTORY VALUE	INVOICE DATE	PURCHASED FROM
ALTOSID WSP EA.	16,094.00	\$0.8100	\$13,036.14	6/22/17	UNIVAR
ALTOSID XR LBS.	296.00	\$3.34	\$988.64	4/9/18	UNIVAR
ALTOSID XRG LBS.	3,480.00	\$8.7500	\$30,450.00	9/18/18	UNIVAR
AQUABAC XT GALS.	282.63	\$32.5000	\$9,185.48	9/24/18	ADAPCO
AQUALUER 20-20 GALS.	460.60	\$118.0000	\$54,350.80	7/18/18	ALLPRO
B. t. I. DUNKS (Dognuts) EA.	270.00	\$0.9780	\$264.06	7/13/18	ADAPCO
COCO BEAR GALS.	176.66	\$20.4800	\$3,618.00	7/16/18	CLARKE
DUJET GALS.	241.00	\$197.9900	\$47,715.59	7/11/18	CLARKE
MOSQUITOMIST TWO GALS.	451.50	\$68.2800	\$30,828.42	8/13/18	CLARKE
NALED GALS.	750.00	\$211.8400	\$158,880.00	6/18/18	ADAPCO
NATULAR DT EA.	10,440.00	\$0.4168	\$4,351.39	9/9/16	CLARKE
NATULAR XRT EA.	0.00	Transferred from lab			CLARKE
STRIKE PELLETS LBS.	44.00	\$184.1500	\$8,102.60	5/10/10	ADAPCO
SUSTAIN MBG LBS.	800.00	\$6.9000	\$5,520.00	9/17/18	ALLPRO
TALSTAR P GALS.	24.51	\$37.1400	\$910.30	3/29/17	UNIVAR
GASOLINE GALS.	4,318.00	\$1.9623	\$8,473.21	1/16/19	L. V. HIERS
TOTAL	38,128.90	\$893.54	\$376,674.63		

PREPARED BY: [Signature] *Went* DATE: 2/19/19

COST FIGURES REVIEWED BY: [Signature] *Gay Starnie* DATE: 3/5/19

REVIEWED BY: [Signature] *Sheldene* DATE: 3/5/19



Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, FL 32092
Telephone: (904)-471-3107 * Fax (904) 471-3189 * Web: www.amcdsjc.org

BOARD OF COMMISSIONERS

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner



DISTRICT DIRECTOR

Dr. Rui-de Xue



Thursday, February 14, 2019

Next Meeting(s): Thursday, March 14, 2019 – 5:00 PM

MINUTES

The regular Board meeting for the Anastasia Mosquito Control District of St. Johns County was held on Thursday, February 14, 2019, at 5:00 P.M.

Board members in attendance:

Mr. Gary Howell, Chairperson
Mrs. Gina LeBlanc, Vice-Chairperson
Mrs. Jeanne Moeller, Commissioner
Mr. Don Girvan, Commissioner
Mrs. Trish Becker, Commissioner

Also in attendance:

Dr. Rui-De Xue, Director
Mr. John Wallace, Lewis Longman & Walker, Attorney (for Mr. Wayne Flowers)
Mr. Bill Youker, V.P., Harrell Construction Co., Inc.

Staff notified the Board that the audio/video equipment is not working for this meeting.

Chairperson Howell called the meeting to order.

Commissioner Howell led the invocation and the Pledge of Allegiance to the flag.

ROLL CALL: Chairperson Howell noted ~ All were present

CITIZEN PARTICIPATION: For Items not on the Agenda ~ None

APPROVAL OF AGENDA: Chairperson Howell called for approval of the Agenda.

A. A motion was made to approve the Agenda as presented.

- Motioned by: Commissioner Girvan
- Seconded by: Commissioner Moeller
- VOTE accepted unanimously by all commissioners
- **MOTION PASSED UNANIMOUSLY**

APPROVAL OF CONSENT AGENDA: Chairperson Howell called for approval of the Consent Agenda.

A. A motion was made to approve the Consent Agenda as presented.

- o Motioned by: Commissioner LeBlanc
- o Seconded by: Commissioner Girvan
- o VOTE: Accepted unanimously by all commissioners
- o **MOTION PASSED UNANIMOUSLY**

Consent Items ~ APPROVAL OF:

1. Treasurer's Report
2. Vouchers (*Cancelled Checks*)
3. Chemical Inventory
4. Minutes: Regular Board Meeting – January 10, 2019 at 5:00 PM
5. Budget Calendar 19/20
6. Change Data Manager's Title to Business Manager
7. Dodd Short Course Report
8. Update Assistant Supervisor Job Description
9. Budget Amendments ~ \$46,713.44 (from Receipts; to Operating Expenditures for Personal Services and Benefits, Operating Expenses, Printing, Misc. Supplies, & Training)

UNFINISHED BUSINESS:

Item 1: 8 Acre Parcel & Research Property Construction Project Update ~ Mr. Bill Youker, V.P. Harrell Construction Co., Inc.

- Mr. Youker stated the hangar is up, framed, and painted; building 800 is close to being done, plumbing and all is in, it just needs cleaned and a systems check done; chicken house is also close to being done, they will soon install the cages; there is still an issue with the permit for the septic system; they had a meeting in Gainesville with the state health department; the permit was applied for through St. Johns County, they then had them apply for a variance through the state, the state then put it back to St. Johns County; the utility department doesn't want to accept the waste from the chickens because of the ammonia; we are waiting on St. Johns County to let us know what we need to do at this time; Commissioner Girvan suggested using a bagging system and Mr. Youker suggested checking with the St. Johns County Agricultural Center to see if they could use it as fertilizer on their gardens. Mr. Youker stated the Certificate of Occupancy for the Guest House will possibly be in by the end of February.

- o **THERE WAS NO MOTION ON THIS ITEM**

Item 2: Discussion and Approval of the Concept for District Expansion ~ Dr. Rui-De Xue

- Dr. Xue stated the Board needs to authorize staff and the attorney to conduct a study on related laws and regulations for expansion of this type and the procedures and process of steps with timelines; Commissioner Moeller stated Chapter 388.021 states: "(1) The abatement or suppression of arthropods, whether disease-bearing or merely pestiferous, within any or all counties of this state is advisable and necessary for the maintenance and betterment of the comfort, health, and welfare of the people thereof and is found and declared to be for public purposes. Areas where arthropods incubate, hatch, or occur in significant numbers so as to constitute a public health, welfare, or nuisance problem may be controlled or abated as provided in this chapter or the rules promulgated hereunder. Therefore, any city, town, or county, or any portion or portions thereof, whether such portion or portions include incorporated territory or portions of two or more counties in the state, may be created into a special taxing district for the control of arthropods under the provisions of this chapter."
http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=03000399/0388/Sections/0388.021.html

- Dr. Xue stated there is approximately 10 square miles in Flagler County that isn't being sprayed and the same in Nocatee area, Duval County. Mr. Wallace stated this can be done through an Interlocal agreement and the Department of Agriculture would have to approve it; it also needs to be initiated by the residents of these counties and to have it approved by their City Council.

A. A motion was made to approve staff, Dr. Xue, and the attorney to have the ability to research this project and discuss the first steps and bring this back to the Board in June.

- Motioned by: Commissioner Moeller
- Seconded by: Commissioner LeBlanc
- VOTE: Accepted unanimously by all commissioners
- **MOTION PASSED UNANIMOUSLY**

Item 3: SIT Project Report (Ppt) ~ Mr. Christopher Bibbs

- Mr. Bibbs presented a PowerPoint explaining the Sterile Insect Technique (SIT) Project; they tried to apply this to the *Aedes aegypti* in our county; they marked and then released them, tracked them to see if they do what we wanted them to; the main focus is the mating behaviors; the Davis Shores area was used as it is surrounded by water, they marked the male mosquitoes with fluorescent colored dyes and set the traps, then checked them twice a week; the release was done every 2 weeks; they had 100 % positive results; the USDA also believes the eradication of females may be able to sterilize them and stop them from blood feeding.

- **THERE WAS NO MOTION ON THIS ITEM**

NEW BUSINESS

Item 1: Aerial Program Report (Ppt) ~ Mr. Peter Paul Leone

- Mr. Leone presented a PowerPoint explaining the aerial program; working on a 4 phase program from budgeted funds: 1) modernizing the VHF radios and transponder, 2) installing AGNAV spray guidance computer, data probe, and integrated with Isolair modular spray systems, 3) installing radar altimeter, and 4) NVG cockpit modification; our white phosphor night vision goggles are better and safer at night than the standard green, FAA requirements - CAP approved December 2018, Official Call Sign is "Mosquito One", Part 137 certificate's tentative approval - summer of 2019, waiting on FAA scheduling confirmation for the NVG cockpit modification certificate.

- **THERE WAS NO MOTION ON THIS ITEM**

Item 2: Update on the 16th annual Workshop, March 26-28, 2019 ~ Dr. Rui-De Xue

- Dr. Xue stated we have 66 speakers scheduled for the workshop, we will have the 70th year celebration in conjunction with the workshop, he invited all commissioners to the dinner for the workshop which will be on Tuesday, March 26th. In the future we may need to control the number of people attending - as the attendees are increasing each year and the facilities may not be able to accommodate the huge numbers.

- **THERE WAS NO MOTION ON THIS ITEM**

Item 3: FMCA Tallahassee Legislation Meeting Items and Delegates and Travel Approval for March 18-19, 2019 ~ Commissioner Jeanne Moeller

- Commissioner Jeanne Moeller gave an overview of the FMCA talking points for the Tallahassee Legislation meeting, there is a \$2,660,000 budget; \$500,000 for research, \$500,000 for FMEL, and

\$83,000 for DACS, Commissioner Moeller will be team leader and will be setting up appointments between the House and Senate, there is a dinner at 6 PM at Georgio's Monday evening; Tuesday is an all day event with lunch on your own this year; she requested everyone that wants to go – to let Dr. Xue know and Commissioners' Becker, Howell, and Moeller all stated they wanted to go.

A. A motion was made to approve the travel for three commissioners to attend the FMCA Tallahassee Legislative Days on March 18-19, 2019.

- Motioned by: Commissioner Becker
- Seconded by: Commissioner LeBlanc
- VOTE: Accepted unanimously by all commissioners
- **MOTION PASSED UNANIMOUSLY**

Item 4: Discussion and Approval for AMCA Washington, DC Conference, May 13-16, 2019 ~

Dr. Rui-De Xue

- Dr. Xue stated that the Washington, DC meetings begin Monday, May 13th and end Wednesday, May 15th by the end of the day; each person's hotel would be three nights at \$250 plus tax and a registration fee of \$70 each. Commissioner Moeller is the team leader.

A. A motion was made to approve the travel for Commissioner Moeller to attend the AMCA Washington, DC Conference May 13-16, 2019.

- Motioned by: Commissioner LeBlanc
- Seconded by: Commissioner Girvan
- VOTE: Accepted unanimously by all commissioners
- **MOTION PASSED UNANIMOUSLY**

REPORTS:

1. **Director** ~ Dr. Xue; employee training was done yesterday, we have finished all the annual performance evaluations, 4 field technicians had complaints of conflicts with their Supervisor, they all sat together and worked on helping the situation, everyone is preparing for the surveillance program, we need to order the chickens the first of March, we finished the Annual Program Report and will release it next week, we are preparing a grant application with the University of Florida cooperation, March 4th MosquitoMate will be here for 6 months, our intern Caroline Blunck will now be working for them and \$10,000 was received from them to hire other interns also to help, for a total grant of \$30,000.
2. **Attorney** ~ Mr. Wallace; stated he had no further comment.

COMMISSIONER COMMENTS:

Commissioner Becker ~ she attended the FMCA Dodd Short Course Commissioner's Caucus and learned a lot, is proud of the good team and Commissioner Moeller's and Christopher Bibb's teachings, our District is awesome.

Commissioner LeBlanc ~ thanked the staff for their hard work and appreciated Mr. Paul Leone's presentation.

Commissioner Girvan ~ the Dodd Short Course Commissioner's Caucus was well presented, the staff and accounting here at AMCD do a great job.

Commissioner Moeller ~ has been looking at the AMCD policy manual and in looking at the "Staff Numbers Policy", would like the Board to approve looking into it as with the aerial program, do we need that many seasonal employees?, would like this brought back to the Board in March to reflect accurate numbers; shared the annual report with several people and they believe we are ahead of IFAS in all our presentations; there is one correction needed (one place states the millage rate was a slight increase, another place says it stayed the same)

Commissioner Howell ~ agrees the Gainesville lab visit was a good one, studied honey bees, AMCD is number one and he wants us to look good and know what we are talking about, wants our commissioner's well trained, the commissioners' input is good and he appreciates it; thanked everyone.

ATTACHMENTS: ~

1. *2018 Annual Program Report DRAFT*

ADJOURNMENT:

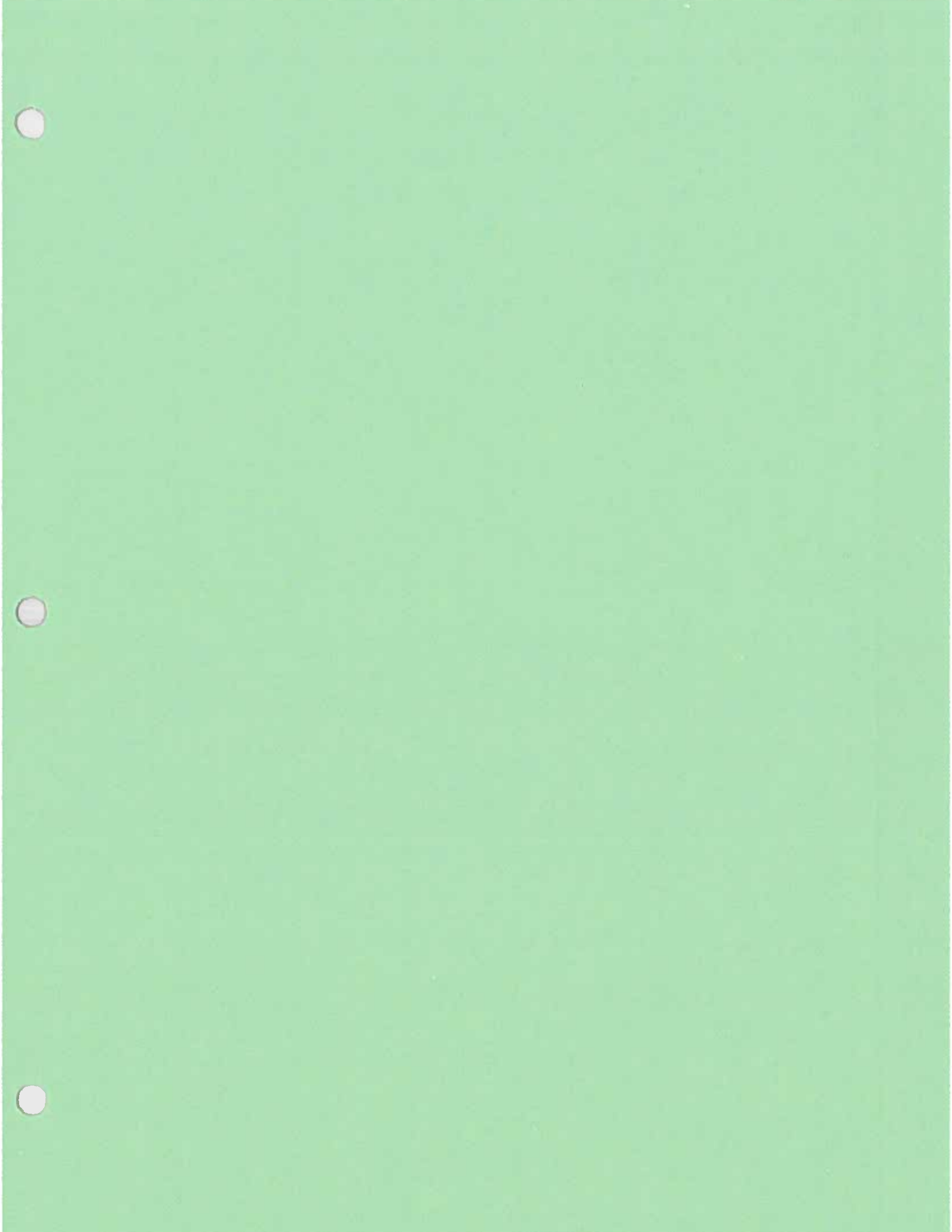
Chairperson Howell adjourned the meeting at 7:03 P.M.

ATTEST _____

Chairperson, Commissioner Gary Howell

Secretary/Treasurer, Commissioner Gina LeBlanc

These minutes are not intended to be a verbatim transcript of this meeting and could easily be misinterpreted by a reader who was not present. To obtain a full and accurate record of the meeting, an individual should view/listen to the entire proceedings via the District's DVD visual/recording system.



Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: AMCA Annual Meeting (February 25 - March 1, 2019) Report

The American Mosquito Control Association's (AMCA) 85th annual meeting was held in Orlando, Florida, from February 25 to March 1, 2019. The meeting attracted over 1,200 participants worldwide. Dr. Rui-De Xue is the co-chair for the local arrangement committee and he attended the PESP subcommittee meeting also. Mr. Christopher Bibbs attended the technological committee meeting in the afternoon of February 25th. AMCD's Commissioners' Mr. Gary Howell and Mrs. Jeanne Moeller attended the AMCA annual meeting, as well as Dr. Xue and Mr. Bibbs who gave presentations at the meeting. Dr. Xue and Dr. Tong-yan Zhao collaborated to organize and moderate the Worldwide Management of *Aedes aegypti* and *Aedes albopictus* symposium and attracted many people to join. Mr. Bibbs gave highlights on the vector control presentations at the Vector Biology and Control Highlight Symposium. Dr. Caroline Efstathion, Mrs. Dena Autry, Ms. Molly Clark, and Miss Caroline Blunck, as volunteers, attended and assisted the AMCA meeting. Mrs. Autry and Ms. Clark attended the AMCA field day in the afternoon of Thursday, February 28th. Dr. Xue received the Presidential Citation Award, to recognize his contributions to the AMCA and Mr. Bibbs received 3rd place in the student paper competition award.

Thank you.



Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

*Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner*

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Dr. Xue to attend WHO's Innovative Strategies for Vector Control Meeting (June 11- 13, 2019)

Dr. Xue will attend the WHO's Innovative Strategies for Vector Control meeting, being held at the Wageningen University, Netherlands, from June 11-13, 2019.

This meeting will benefit AMCD's GLP (Good Laboratory Practice) application process for evaluation of innovative technology and tools for mosquito vector control. The cost is approximately \$2,800 including airline tickets, hotel, registration, and other costs. The funds will be used from research grant money provided by several companies.

Thank you.

Consent #6

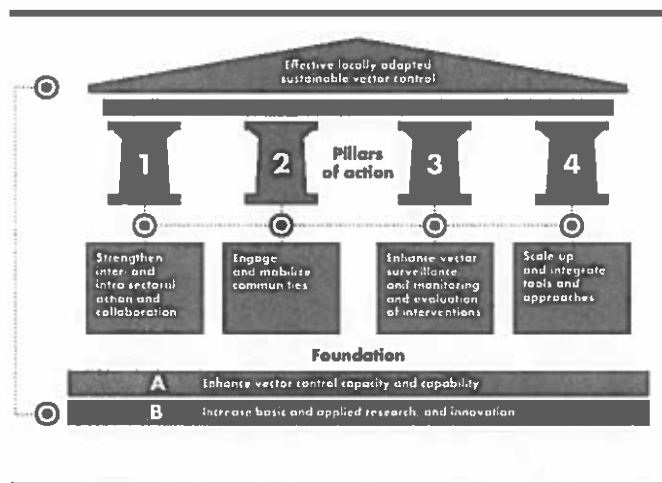


Background about the GVCR

Home / Background about the GVCR

Triggered by the unprecedented global spread of dengue and chikungunya viruses and outbreaks of Zika virus disease and yellow fever in 2015-2016, the World Health Organization developed the **Global Vector Control Response (GVCR)** as a strategic guidance to countries and development agencies for the strengthening of vector control as a fundamental approach to preventing disease and responding to outbreaks. The World Health Assembly unanimously endorsed the GVCR in 2017.

Central to the GVCR are four pillars of action: Inter- and intra-sectoral action and collaboration (pillar 1), Engagement of communities (pillar 2), Vector surveillance, monitoring and evaluation (pillar 3) and Scaling up and integration of tools (pillar 4). Combined, these should lead to more effective, locally adapted and sustainable vector control.



Global Vector Control Response framework (WHO 2017)

Since the adoption of the GVCR, numerous activities as outlined in the document have been initiated: countries are encouraged to introduce the procedures as laid out in the GVCR. Focus has been on the arrangement and establishment of inter-ministerial task forces as a tool to strengthen inter- and intra-sectoral action and collaboration. For strengthening of vector-control, active collaboration within and between the health and non-health sectors is required. Many countries have taken up this recommendation and are currently developing national plans for vector control. Where needed, regional meetings have been held for better coordination and efficacy of vector control.



About the GVCR

Triggered by the unprecedented global spread of dengue and chikungunya viruses and outbreaks of Zika virus disease and yellow fever in 2015-2016, the World Health Organization developed the Global Vector Control Response (GVCR) as a strategic guidance to countries and development agencies for the strengthening of vector control as a fundamental approach to preventing disease and responding to outbreaks. The World Health Assembly unanimously endorsed the GVCR in 2017.

Contact

The secretariat of the 2019 GVCR conference is hosted under the Graduate School PE&RC of Wageningen University. Dr Claudius van de Vijver acts as the contact person for this conference. You can contact him by phone (+31-317-485116) or by e-mail (claudius.vandevijver@wur.nl).

Tentative conference programme

Home / Tentative conference pro

INNOVATIVE STRATEGIES FOR VECTOR CONTROL

- Progress in the Global Vector Control Response (GVCR) -



Tentative Programme

Tuesday 11 June

	Topic	Chair	Speaker
08:00 - 09:00	Registration		
09:00 - 09:30	Welcome and opening	Willem Takken	Pedro Alonso
09:30 - 10:00	Keynote lecture 1		Steve Lindsay
10:00 - 10:30	Keynote lecture 2		Louise Fresco (Chair WUR Executive Board)
10:30 - 11:00	Coffee / Tea break		
11:00 - 12:30	Session 1: Intersectoral actions	Tessa Knox	
	Example 1 - Malaria		Clifford Mutero
	Example 2 - Dengue		Pattamaporn Kittayapong
	Example 3 - Filariasis		Jonathan King
	Summary and future steps		
12:30 - 14:00	Lunch		
14:00 - 15:30	Session 2: IVM in Practice	Sander Koenraadt	
	1 - IVM avant la lettre: Malaysia and Indonesia		Ann Wilson
	2 - Solarmal: malaria control by mass trapping		Alex Hiscox
	3 - Larval control		Sander Koenraadt
	4 - Control of malaria and dengue in Sri Lanka - path to elimination		Henk van den Berg
15:30 - 16:00	Coffee / Tea break		
16:00 - 17:30	Session 3: Insecticides	Hilary Ranson	
	1 - Malaria		Immo Kleinschmidt
	2 - Dengue		Tom Scott
	3 - Behavioural change		Fredros Okumu
	4 - Management strategies		Hilary Ranson
17:30 - 18:00	Synthesis: lessons learnt for advancement of GVCR	Steve Lindsay	
19:00 - 22:00	Congress dinner		

Wednesday 12 June

	Topic	Chair	Speaker
08:30 - 10:00	Session 4: Innovative strategies	Matt Thomas	
	1 - Biological control		Norbert Becker
	2 - RIDL		To be announced
	3 - World Mosquito Program (Wolbachia)		Peter Ryan
	4 - Population replacement / homing		Austin Burt
	5 - Push-pull and ATSB		Sarah Moore
	Discussion: uptake of innovative strategies		
10:30 - 11:00	Coffee / Tea break		
11:00 - 12:30	VCGR Working groups / solutions for case studies		Led by WHO
12:30 - 13:30	Lunch		
13:30 - 14:30	Poster Session		
14:30 - 16:00	VCGR Working groups / solutions for case studies (continued)		Led by WHO
16:00 - 16:30	Coffee / Tea break		
16:30 - 18:00	Session 5: Social aspects of IVM	Cees Leeuwis	
	1 - Majete Malaria Control & the Hunger Project		Michèle van Vugt
	2 - DaresSalaam malaria control project		To be announced
	3 - Urban filariasis		Melissa Parker
	4 - Arbovirus outbreaks		Christoph Boete
Evening	Free		

Thursday 13 June

	Topic	Chair	Speaker
08:30 - 10:00	Presentation & discussion of case studies	Willem Takken	VCGR Working groups
10:00 - 10:30	Coffee / Tea break		
10:30 - 12:00	Session 6: how do we measure GVCGR progress?	Sander Koenraadt, Tessa Knox	
	1 - Epidemiological outcomes		Teun Bousema
	2 - Vector elimination		Margareth Capurro
	3 - Funding mechanisms		Erwin Bulte
	4 - Capacity building		Steve Lindsay
12:00 - 13:00	Lunch		
13:00 - 14:30	Session 7: Scaling up, conclusions and follow up	John Reeder, Raman Velayudhan & Steve Lindsay	
	1 - Regulatory issues of Implementing GVCGR		To be announced
	2 - Intersectoral collaboration		To be announced
	3 - Role of WHO		John Reeder
14:30 - 15:00	Coffee / Tea break		
15:00 - 16:00	The way forward to public health vector control		Willem Takken
16:00 - 16:30	Closing		
16:30	Farewell reception		

About the GVCR

Triggered by the unprecedented global spread of dengue and chikungunya viruses and outbreaks of Zika virus disease and yellow fever in 2015-2016, the World Health Organization developed the Global Vector Control Response (GVCR) as a strategic guidance to countries and development agencies for the strengthening of vector control as a fundamental approach to preventing disease and responding to outbreaks. The World Health Assembly unanimously endorsed the GVCR in 2017.

► Global Vector Control Response Conference

Contact

The secretariat of the 2019 GVCR conference is hosted under the Graduate School PE&RC of Wageningen University. Dr Claudius van de Vijver acts as the contact person for this conference. You can contact him by phone (+31-317-485116) or by e-mail (claudius.vandevijver@wur.nl).

by BASZ



SUBAWARD AGREEMENT

This Contractual Agreement is entered into, effective as of the date of the later signature indicated below, by and between the **National Association of County and City Health Officials** (hereinafter referred to as "NACCHO"), with its principal place of business at 1201 (I) Eye Street NW 4th Fl., Washington, DC 20005, and **Anastasia Mosquito Control District of St. John County** (hereinafter referred to as "SUBRECIPIENT"), with its principal place of business at 120 EOC Dr. St. Augustine, FL 32092.

WHEREAS, NACCHO wishes to hire SUBRECIPIENT to perform the services specified herein for NACCHO to enhance the programmatic activities of a grant;

WHEREAS, SUBRECIPIENT wishes to perform such services for NACCHO.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, do hereby agree as follows:

1. **PURPOSE OF AGREEMENT:** SUBRECIPIENT agrees to provide the goods and/or services to NACCHO to enhance the programmatic activities of CDC Grant # 1 NU38OT000306-01-01 (CFDA #93.421) as described in Attachment I. The terms of Attachment I shall be incorporated into this Agreement as if fully set forth herein. SUBRECIPIENT shall act at all times in a professional manner consistent with the standards of the industry.
2. **TERM OF AGREEMENT:** The term of the Agreement shall begin on February 1st, 2019 and shall continue in effect until June 30th, 2019, unless earlier terminated in accordance with the terms herein. Expiration of the term or termination of this Agreement shall not extinguish any rights or obligations of the parties that have accrued prior thereto. The term of this Agreement may be extended by mutual agreement of the parties.
3. **PAYMENT FOR SERVICES:** In consideration for services to be performed, NACCHO agrees to reimburse the SUBRECIPIENT for eligible costs incurred up to \$ 16,000.00. Eligible costs are those previously approved by NACCHO.

Invoice No.	Period of Performance	Due date
Invoice I	February 1 – March 31, 2019	April 15, 2019
Invoice II	April 1 – June 30, 2019	July 15, 2019

All payments will be made in arrears, within 30 days of receipt of invoice(s) from SUBRECIPIENT and following approval by NACCHO for approved services, as outlined on Attachment I. The invoice(s) shall itemize all expenses with supporting documentation for each itemized expense. Invoices may be submitted in increments of bi-monthly. The NACCHO contract number must be included on all invoices. The final invoice must be received by NACCHO no later than 45 days after the end date of the Agreement.

4. GENERAL PROVISIONS: The parties agree to be bound by the General Provisions as described in Attachment II. The terms of Attachment II shall be incorporated into this Agreement as if fully set forth herein.
5. CONTINGENCY CLAUSE: This Agreement is subject to the terms of any agreement between NACCHO and its Primary Funder and in particular may be terminated by NACCHO without penalty or further obligation if the Primary Funder terminates, suspends or materially reduces its funding for any reason. Additionally, the payment obligations of NACCHO under this Agreement are subject to the timely fulfillment by the Primary Funder of its funding obligations to NACCHO.
6. EXECUTION AND DELIVERY: This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same Agreement. The counterparts of this Agreement and all Ancillary Documents may be executed and delivered by facsimile or electronic mail by any of the parties to any other party and the receiving party may rely on the receipt of such document so executed and delivered by facsimile or electronic mail as if the original had been received.
7. NOTICE: All notices, including invoices, required to be delivered to the other party pursuant to this Agreement shall be in writing and shall be sent via facsimile, with a copy sent via US mail, postage prepaid, to the parties at the addresses set forth below. Either party may send a notice to the other party, pursuant to this provision, to change the address to which notices shall be sent.

FOR NACCHO:

National Association of County and City Health Officials
Attn: Ade Hutapea, LL.M., CFCM
Lead Contracts Administrator
1201 (I) Eye Street NW 4th Fl.,
Washington, DC 20005
Tel. (202) 507-4272
Fax (202) 783-1583
Email: ahutapea@naccho.org

FOR SUBRECIPIENT:
Anastasia Mosquito Control District of St. John County
Attn: Dr. Rui-De Xue
Director
120 EOC Dr.
St. Augustine, FL 32092
Tel: (904) 484-7330
Fax: (904) 471-3189
Email: xueamcd@gmail.com

6. AUTHORITY TO BIND: Each party hereby represents and warrants that the person signing below has the authority to bind such party to this Agreement.

NACCHO:

SUBRECIPIENT:

By: _____

By: _____

Name: Jerome Chester

Name: _____

Title: Chief Financial Officer

Title: _____

Date: _____

Date: _____

Federal Tax ID No: 596002334
DUNS # 026129775

NATIONAL ASSOCIATION OF COUNTY AND CITY HEALTH OFFICIALS

SUBRECIPIENT AGREEMENT – ATTACHMENT I

SCOPE OF WORK

**Vector Control Collaborative
Mentorship Program (2018-2019 Cohort)**

Mentor Scope of Work

- Work with mentees to finalize joint action plan by March 1, 2019.
- Participate in an all-participants program kick-off in February 2019. The call will introduce program contacts from National Association of County and City Health Officials (NACCHO), Centers for Disease Control and Prevention (CDC), cohort members, and discuss program expectations and requirements.
- Participate in two cohort calls with NACCHO and CDC. These calls are designed for mentors and mentees to share lessons learned, describe any challenges they may be facing, and to work with program staff to re-focus efforts as appropriate.
- Submit invoices by NACCHO deadlines:
 - 1st Invoice: Submit by April 15, 2019 for expenses incurred through March 31, 2019
 - 2nd Invoice: Submit by July 15, 2019 for expenses incurred between April 1 and June 30, 2019.
- Schedule and convene at least one in-person site visit with mentee. NACCHO recommends that site visits are scheduled early in the project period. Mentors are expected to identify their mentee(s) areas of interest in advance of the site visit and focus on the tools, resources, and processes entailed in meeting those Vector Control and Surveillance Capabilities.
- Participate in one NACCHO site visit.
- Participate in regular conference calls and other electronic communications with mentee.
- Communicate progress and any major changes to program's statement of work to NACCHO.
- Participate in post-program evaluation to identify successes, challenges, and opportunities for program improvement.
- Document and share lessons learned, tools and resources that were helpful for the project. Serve as resource for vector control programs who are interested in participating in the Vector Control Collaborative.
- Complete all project deliverables by June 30, 2019.

Project Budget

Modified budget for Anastasia Mosquito Control District

FT Organizer/Moderator/Trainer (\$25/hr x 35 hrs x 14 weeks) =	\$12,250
Fringe benefits (13%)	\$1,592.50
16 th workshop registration fee for Navy and other small program (\$150 x 10 people) =	\$1500
Supplies & materials:	\$357.50
Others signs, name tags and bands:	\$300
Total:	\$16,000



UNFINISHED BUSINESS

#1

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Manpower Numbers Discussion

Based on Commissioner Jeanne Moeller's suggestion and request at the last Board meeting concerning the AMCD manpower numbers, due to aerial capability and the new facility availability, this item has been listed on the agenda for discussion and approval.

Several years ago, the Board suggested that the manpower numbers should not be less than 27 full time employees. Due to the centralization of all AMCD stations and the development of an aerial program, the number of full time employees and seasonal employees needs to be reconsidered. However, our aerial program has not been run for mosquito control yet and the new research facility has not been completed yet. At the moment, it is hard to tell the number of full time and seasonal employees that will be needed.

I would like to get the Board members input and also request to postpone this items to next year, after we have run the aerial program for one year and completely finish the new facility's construction.

Thank you.

UNFINISHED BUSINESS

#2

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Discussion and Approval of A & P Aircraft Mechanic Job Description

Based on the FAA's requirements and request, all parts and equipment that need installed and/or changed for the helicopter, has to be certified by a certified mechanic, not the pilot.

I would like to recommend that the Board create a part-time helicopter mechanic, titled A & P Aircraft Mechanic, due to the undependable and high cost of a contractor for the helicopter mechanic service. In the meantime, we may have the part-time mechanic be trained as a part-time pilot, as a backup for our pilot, or as a part-time surveillance technician.

Attached is the job description for discussion and approval. This job description is based on other District program's mechanic job description that we collected and edited for the AMCD's needs.

Thank you.

THE ANASTASIA MOSQUITO CONTROL DISTRICT OF ST. JOHNS COUNTY
JOB DESCRIPTION

<u>JOB TITLE</u>	<u>DEPARTMENT</u>	<u>STATUS</u>	<u>REPORTS TO (TITLE)</u>
A & P Aircraft Mechanic (Airframe and Power Plant)	Aviation	NON-EXEMPT	Pilot

PURPOSE OF JOB:

Performs highly skilled and technical duties of considerable difficulty requiring a high level of initiative and independent judgement to include maintenance of the District's helicopter in accordance with the manufacturers, FAA and District standards and requirements and any other aerial function as directed, in a safe and legal manner to facilitate the operations of the District.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

1. Overhaul, repair, inspect, and maintain aviation fuel tank, aircraft engine, airframe and systems as required by FAA regulations, manufacturer, and District requirements, coordinating with AMCD personnel and outside contractors as necessary.
2. Maintain aircraft maintenance logbooks, records, publications, catalogues and technical manuals and submit required reports to pilot and/or Director as needed.
3. Maintain technical proficiency and ensure compliance with FAA, State of Florida, and District regulations, directives and standard operating procedures (SOPs) and notify pilot and/or Director, and/or other personnel on matters pertaining to the aviation program, aircraft maintenance, and aviation safety
4. Maintain hangar, aircraft stock, inventory, and all assigned aviation related equipment and tools, and assure all are in good working condition and properly safe and secure.
5. Supervise and assist personnel with calibration of a variety of spray equipment and the annual droplet testing.
6. Attend training, symposiums, and trade shows as required to maintain necessary professional ratings and currency with AMCD aircraft and equipment.
7. Work closely with the Pilot to plan for, execute, and possibly work as a loadmaster or crew member for assigned missions including air inspection, larvicide, ULV and any other aerial mission as assigned.
8. Assist other District mechanics in repair of non-aviation vehicles and equipment as needed.
9. Assist other District personnel in activities such as, ground based mosquito treatment and/or other activities as needed.
10. Respond and/or be assigned to assist other agencies based on operational or emergency needs.
11. Responsible for wearing appropriate Personal Protective Equipment (PPE) in accordance with the AMCD Safety Manual, label, and SDS sheet, when required.

12. Help train and supervise District personnel to function safely around the aircraft in day and night conditions, to include loading of chemicals, proper fueling procedures, and all other operations.
 13. Perform other related duties as assigned.
-

QUALIFICATIONS:

1. High school graduate or GED minimum, college degree preferred.
 2. Must have a valid Class E Florida Driver's License with an acceptable driving record.
 3. Ability to effectively communicate in English and be able to read and understand chemical labeling instructions in English.
 4. Valid and current FAA Airframe and Power Plant License with Inspection Authorization.
 5. Five years of verifiable aircraft maintenance experience.
 6. Bell 206B Field Maintenance Course Completion Certificate.
 7. Rolls Royce M250/T63 Training Course Completion Certificate.
 8. Must possess an adequate, serviceable set of mechanical tools appropriate for the service and repair of the Bell 206B3 helicopter.
 9. Must hold a current Public Health Pest Control License issued by the State of Florida, Department of Agriculture and Consumer Services or be able to obtain one within six month of hire. Must maintain license in good standing by earning appropriate CEU's (continuing education units).
 10. Must possess and demonstrate a proficiency in varied computer software systems including the Microsoft Office products. Must also have the ability to learn various aviation related and District software programs
 11. Ability to travel when necessary to attend conferences and meetings.
 12. Ability to work nights, weekends, and holidays as needed.
 13. Ability to interact efficiently and cooperatively with peers, supervisors and the general public, in a courteous manner.
-

WORK ENVIRONMENT/PHYSICAL REQUIREMENTS:

The physical demands and work environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform essential functions.

Physical Requirements: Moderate physical activity is required on a regular basis including lifting, reaching for, pulling and carrying up to fifty pounds, reaching and pulling with arms, stooping, standing, bending frequently, sitting for long periods of time while flying, walking for moderate distances and climbing over and around natural

obstacles. Must be able to use hands and fingers to type, and grip and operate a variety of hand tools and other equipment. Be able to pull fifty foot long fuel. Excellent vision, both close and distance, is required.

Work Environment: The work environment varies but normally is outdoors or in a vehicle but may include warehouses, office buildings, boats, marshes, fields, islands, open water, laboratories and animal rearing/storage facilities. Regular exposure to all types of weather is required as the position is required to work outside, exposed to high temperatures and humidity, sun, rain, and wind. Frequent local travel is required. Exposure to moderate to high noise levels will occur on a regular basis when around aircraft, spray equipment and a variety of other equipment, motors and engines. Working with and around chemicals, which are stored, handled, applied/used and disposed of according to exact labeling instructions, is required frequently. Regular exposure to moving mechanical parts, mud, fuel, fumes and insects is required.

I HAVE READ AND UNDERSTAND THIS JOB DESCRIPTION.

Signature

Date

Printed Name

**NEW
BUSINESS
#1**

Charolette Hall

From: Dr. Rui-De Xue <xueamcd@gmail.com>
Sent: Tuesday, February 19, 2019 5:08 PM
To: 'TBecker4AMCD'; g-chowell@att.net; 'Jeanne Moeller'; Gina LeBlanc; 'Don Girvan'; 'Wayne Flowers'; xueamcd@gmail.com
Cc: 'Molly Clark'; 'Kay Gaines'; 'Richard Weaver'; 'Tom Columbus'; 'Caroline Efstathion'; 'Steven Smoleroff'; 'Dena Autry'; 'Christopher Bibbs'; 'Caroline Blunck'; 'Nick Acevedo'; 'Charolette Hall'; 'Scott Hanna'
Subject: Education Committee meeting schedule, March 14 at 4pm

Dear Commissioner Mrs. Becker:

The Education Committee meeting has been scheduled on March 14 at 4pm before the Board meeting. The following items will be discussed and arranged. If you and other members have any inputs, please let me know.

The meeting major purpose is to prepare for the 16 annual workshop and 70th anniversary celebration.

Thank you very much.

Rudy Xue, Ph.D.
Director

2019's 1st Education Committee Meeting

March 14 at 4pm
Proposed agenda

1. Welcome and introduce each other
2. 16th workshop preparation and staff tasks/duties (program, registration, name tags, parking direction, lunch and dinner service, shuttle service from hotel to meeting site, break refreshments, clean-up, table rent, facility tour, AMCD presentations, and others)
3. 70th anniversary celebration items, content, posters, activity plan and website update
4. Report about Disease Vector Museum (committee appointment and meeting schedule, items for draft budget)
5. Next meeting schedule in middle of June (Major purpose is to plan and prepare for National Mosquito Control Awareness Week and open house in the last week of June)

Education Committee Members: Mrs. Trish Becker (Chair), Ms. Molly Clark (member), Carolina Efstathion (member), Kay Gaines (member), Dena Autry (member), and Steven Smoleroff (member), Tom Columbus (member)

**NEW
BUSINESS
#2**

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Discussion and Approval of Collaboration Grant Application with CDC for SIT

The CDC, DACS, and the State Department of Health have released the Hurricane Relief Funds to support novel operation control for mosquitoes and the SIT is a major part of the fund content.

The AMCD has collaborated with the University of Florida's Department of Entomology and Nematology and the USDA/CMAVE on the SIT for Control of *Aedes aegypti* in St. Augustine for the past 2 years through the DACS's 2 year research grant fund.

Now I would like to recommend that AMCD continues to collaborate with the University of Florida and the USDA/CMAVE to apply for the CDC grant funds in order to continue the operation control of *Aedes aegypti* in St. Augustine by the SIT.

Thank you.

Title: Operational Sterile Insect Technique for *Ae. aegypti* Suppression in St. Augustine, FL (AMCD).

Name of PI: Daniel A. Hahn, Ph.D.

Names of Co-PI's: Seth C. Britch, Ph.D.; Dan Kline, Ph.D., Kenneth J. Linthicum, Ph.D and Rui-De Xue Ph.D.

Institutional Affiliations of PI and Co-PI's:

PI: University of Florida, Entomology & Nematology Department

Co-PI: US Department of Agriculture, Agricultural Research Service, Center for Medical, Agricultural, and Veterinary Entomology (USDA-ARS-CMAVE), and Anastasia Mosquito Control District

Contact information of PI and Co-PI's

PI: Daniel A. Hahn, University of Florida

Mailing address: Entomology and Nematology Dept.
1881 Natural Area Drive
Gainesville, FL 32611-0620

Email address: dahahn@ufl.edu

Phone number: (352) 273-3968

Co-PIs: Seth C. Britch, Dan Kline, & Kenneth J. Linthicum, USDA-ARS-CMAVE

Mailing address: 1600 SW 23rd Dr., Gainesville, FL 32608

Email addresses: Seth.Britch@ARS.USDA.GOV, Dan.Kline@ars.usda.gov,
Kenneth.Linthicum@ARS.USDA.GOV

Phone numbers: (352) 374-5700

Co-PIs: Rui-De Xue, Anastasia Mosquito Control District

Mailing address: 120 EOC Drive, St. Augustine, FL 32092

Email addresses: xueamcd@gmail.com

Phone numbers: (904) 471-3107

ABSTRACT

Aedes aegypti has been a persistent problem in St. Augustine since 2016. Although substantial efforts with adulticide and larvicide treatments will knock this population back, they quickly rebound and have been persistent in this area of high residential density, businesses, and tourism. A pyrethroid resistance ratio of 20-fold is present in 40% of this population, as revealed by bottle assays performed by Florida Medical Entomology Laboratory's state-wide resistance monitoring program as well as molecular assays by USDA-ARS-CMAVE scientists, and may be contributing to treatment failures. Novel tools are clearly needed to complement source reduction, larvicides and adulticides for *Ae. aegypti* in St. Augustine and in many other locations in FL. Here we propose to perform an operational *Ae. aegypti* population suppression program combining sterile insect technique (SIT) with adulticiding, larviciding, source reduction, and intensive population monitoring in St. Augustine, FL.

Deliverables at the end of this grant will include:

- 1) Data about population densities of *Ae. aegypti* taken via adult BG Sentinel trapping and egg densities and egg hatch from ovicups taken in our intervention area and another similar site not receiving SIT, delivered to the State of Florida and CDC within 90 days of the grant end.
- 2) A peer-reviewed publication describing population suppression achieved by adding SIT to an integrated mosquito management plan, expected within 12 months of the grant end.
- 3) Dissemination of our operational protocols and early results will occur through a number of forums including presentation by project personnel at the Florida Mosquito Control Association Meeting in November 2019 and the American Mosquito Control Association Meeting in February 2020. Additional dissemination will occur as opportunities arise. For example, in November 2018 Hahn participated in a special one-day FMCA workshop on SIT at Lee County MCD with 150 participants and in February 2019 Hahn presented on SIT programs to the FMCA DODD Directors Caucus.
- 4) Quarterly reports on progress throughout the course of the grant and a final report summarizing findings 90 days after grant termination.

COST ANALYSIS: Contractors: Anastasia Mosquito Control District, Subcontract to University of Florida
Proposal Title: Operational Sterile Insect Technique for Innovative *Ae. aegypti* Control in Downtown St. Augustine, FL (AMCD). **Period of Service:** Upon Execution July 1, 2019– September 30, 2020

Budget elements sub-contracted are marked (sub)	7/1/2019to 6/30/2020 (12 months)	7/1/2020 to 9/30/2020 (3 months)	Total funds requested over the 15 months
Salaries :			
Biological Scientist AMCD (Sub)	\$59,890	\$14,973	\$74,863
Technician AMCD (Sub)	\$37,852	\$9,463	\$47,315
Fringe:			
Biological Scientist AMCD (Sub)(14%)	\$8,385	\$2,096	\$10,481
Technician AMCD (Sub) (14%)	\$5,299	\$1,325	\$6,624
Miscellaneous			
Materials & Supplies, AMCD (sub)	\$45,100	\$2,000	\$47,100
TOTAL CONTRACT VALUE	\$156,526	\$29,857	\$186,383

Xue Budget Justification for Operational SIT program at AMCD

Personnel: For all personnel we request one year and three months salary and benefits. AMCD will hire one full-time biological scientist and one full time mosquito control technician that will perform field monitoring and releases. Salary and benefits for the biological scientist are \$59,890/yr plus \$8,385 benefits (14%) = \$85,344 total over the 15 months of this grant. Salary and benefits for the technician are \$37,852/yr plus \$5,299 benefits = \$53,939 total over the 15 months of this grant. Additional assistance may be gleaned from college interns and existing AMCD personnel.

Materials and Supplies: AMCD will require materials for trapping and field evaluation of our SIT intervention including \$25,000 for BG Sentinel traps, \$7,200 for lures, \$12,000 for batteries, materials for ovicups including seed germination papers \$900, and miscellaneous materials for making infusions and repairing traps \$2,000. \$47,100 total materials costs.

Note that AMCD will not charge indirect costs for this project, total costs \$186,383

Scope of Work – subcontract to Dr. Xue at AMCD

Co-PI Dr. Rui-De Xue and his personnel have decades of experience in operational mosquito control. Dr. Xue and his staff at Anastasia Mosquito Control District will lead our efforts in public engagement, field monitoring of mosquito populations – including BG trapping and ovicups, and releasing sterile male mosquitoes shipped to them from Gainesville. Dr. Xue and his group will work closely with the other PIs to analyze data and prepare oral and written reports as well as peer-reviewed publications.

**NEW
BUSINESS**

#3

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, Florida 32092

PH: (904) 471-3107 • Fax (904) 471-3189 • Web Address: www.amcdsjc.org

MEMO

DISTRICT DIRECTOR

Dr. Rui-de Xue



BOARD OF COMMISSIONERS:

Gary Howell, Chairperson
Jeanne Moeller, Vice-Chairperson
Gina LeBlanc, Secretary/Treasurer
Don Girvan, Commissioner
Trish Becker, Commissioner

TO: Board of Commissioners

FROM: Dr. Rui-De Xue, Director

CC: Charolette M. Hall, Administrative Assistant

DATE: March 4, 2019

RE: Discussion and Approval of Collaboration Grant Application with DACS for Keystone Virus Survey

The keystone virus is a new emerging arbovirus transmitted by mosquitoes.

Dr. Caroline Efstathion, AMCD Molecular Biologist has been contacted by the University of Florida's (UF) Emerging Pathogen Institute's (EPI) Director, Dr. Glen Morris, for collaboration.

I would like to recommend that the Board approve that AMCD collaborate with UF/EPI to apply for the DACS grant about the keystone virus survey in St. Johns County.

Thank you.

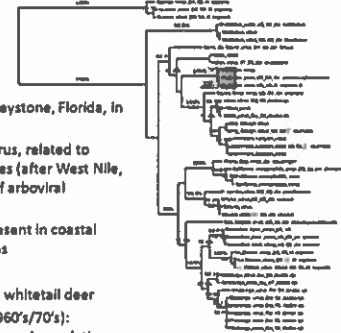


Keystone (and Other New and Unexpected Arboviruses): Research Needs

J. Glenn Morris, Jr., MD, MPH&TM
 Professor and Director
 UF Emerging Pathogens Institute

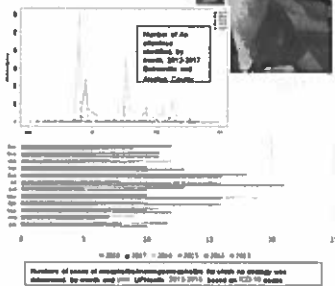
Keystone Virus

- First isolated from mosquitoes in Keystone, Florida, in 1964
- California-serogroup orthobunyavirus, related to LaCrosse, Jamestown Canyon viruses (after West Nile, 2nd and 3rd most common causes of arboviral neuroinvasive disease in U.S.)
- In studies from the 1960's/70's, present in coastal areas from the Chesapeake to Texas
 - Vector: *Aedes atlanticus*
 - Reservoirs: squirrels, raccoons, whitetail deer
- Clinical presentation in humans (1960's/70's): antibodies present in 19-21% of general population, with serologic evidence of infection in 2 y/o child in Sarasota with neuroinvasive disease



Keystone virus: Update

- First isolation of virus from humans in 2016
 - 16 y/o attending summer band camp in Alachua County, seen in clinic with fever and rash
- Subsequent studies: 30% of random blood samples at UF Shands have neutralizing antibodies to Keystone
- ? cause of neuroinvasive disease (of which there are an average of 117 cases/year at UF Shands for which no etiology is identified)



Other Emerging Arboviruses (Alphaviruses) of Potential Concern in Florida

- *Mayaro virus* (MAYV)
 - Identified in Haiti in 2014, being seen with increasing frequency in Caribbean and South America, with evidence of recent recombination events and adaptation to a broad host and vector range
 - Vector (?): *Haemagogus* spp. (Brazil); *Aedes* spp.
- *Madariaga virus* (South American Eastern Equine Encephalitis; MADV)
 - Spread from Panama to Haiti in 2013; suggestions of ongoing spread through the Caribbean and South America; associated clinically with fever/rash syndrome and neuroinvasive disease
 - Vector (?): *Culex* (*Melanoconium*) spp; *Psorophora albigena/ferax*
- *Chikungunya virus* (CHIKV), Eastern-Central-South African (ECSA) lineage, subgroup IIa ("American" subgroup)
 - Isolated from *Ae. albopictus* in Haiti in 2016 (vs. CHIKV Asian lineage, which we have only isolated from *Ae. aegypti*); probable introduction into Haiti in 2015

Research Questions



- For *Keystone virus* (KEYV):
 - How common is *Ae. atlanticus* in Florida? When and where is it most likely to be seen?
 - How often/when is KEYV present in *Ae. atlanticus*?
 - Are there other mosquito species that carry KEYV?
- For other emerging arboviruses:
 - Need for surveillance/screening of mosquito pools for other arboviruses likely to have been/be introduced into Florida, including Mayaro, Madariaga, and ECSA Chikungunya (American subgroup)

REPORTS

Director Report (Feb 2019)

Program Management:

1. Customer and professional service: AMCD answered 69 service requesters. Dr. Xue reviewed 3 manuscripts for the International Journal of Pest Control, JME, and Acta Tropica at the editor's requests.
2. Surveillance: BG traps still continues for Aedes mosquito surveillance and caught 297 mosquitoes included Culex, Anopheles and only 7 Aedes mosquitoes.
3. Operation control: AMCD MCTs conducted adulticiding for 4 times to treat 285 acres and barrier treatments for 8 times for 2 acres, and hand spraying for 15 times. Positive larval dips were 235 and treated larvae for 66 times for 303 acres.
4. Applied research: Received \$10K from MGK about PBO test. Received \$10K from MosquitoMate for collaboration project. Billed \$12K to LampFarm, Inc. for Gen 2 test. Work with ThermCell repellent device testing protocol with company. Prepare for MosquitoMate project in St. Augustine South.
5. Education: All employee training about mandatory classes have been done. Worked with the NACCHO about vector control training. Updated 16th workshop program agenda. Scheduled 1st Education Committee meeting on Feb 14 at 5pm.

Business Management:

6. Serve to the Board of Commissioners: Staff prepared for Feb 14's Board meeting documentations. Assisted the Board members for registration of AMCA meeting and FMCA Tallahassee Legislation Meeting and booked hotel rooms.
7. Budget and auditor: Staff collaborated with CPA to prepare for auditor report.
8. Insurance: staff proceeded all insurances.
9. Contract: Staff works on the arthropod control plan/agreement with DEP and schedule meeting with them on March 6.
10. Inventory: The surplus list has been sent to publics for auction.
11. Annual program has been released.
12. HR. One intern quitted after 2 weeks at AMCD. One intern student has been switched her employee from AMCD to MosquitoMate and effective from March 3 for Wolbachia project.

Meeting:

Feb. 4-5. Attended the FMCA's Dodd Short Course. Commissioner Moeller, Howell, Girvan & Becker attended the Commissioner session on Tuesday.

Feb 6. AM. Meeting at UF Dept of Entomology's Urban Entomology Center. PM. Meeting at USDA/CMAVE about SIT grant application.

Feb 7. Attended UF/EPI research day.

Feb 11. 7am. Met Mrs. Gaines about an intern quit on Feb 6. Met Mr. Scott Barry about his vehicle paint damage.

Feb 12. 10am. Met UF/EPI Director about Keystone virus collaboration. 11am. Hosted and attended the FCCMC meeting.

Feb 13. Attended all employee training.

Feb 14. 9:30am. Attended MosquitoMate teleconference meeting. 11am. Showed Commissioner Mr. Howell about new facility. 2pm. Attended NACCPO vector control meeting.

Feb 19. Reviewed a manuscript about *Aedes* breeding for the International Journal of Pest Control. 3pm. Held staff meeting.

Feb 20. 10am. Attended UF/EPI new virus meeting. 1:30pm. Visited and met Gainesville MCD facility and staff. Reviewed a manuscript about ATSB for the Journal of Med Entomology.

Feb 21. Reviewed a manuscript about sounds and mosquito prevention for the Acta Tropica.

Feb 25. Attended the AMCA PESP subcommittee meeting in pm.

Feb 26. Attended the AMCA annual meeting and received the Presidential Citation Award at the meeting.

Feb 27. Attended the AMCA annual meeting and held the Worldwide Management of *Aedes aegypti* and *Aedes albopictus* symposium, gave a talking about *Ae. aegypti*. M. Clark and D. Autry also gave their talking at the symposium.

Feb 28. Attended the annual meeting in AM and field day in the PM. Mr. Bibbs received student paper competition at 3rd place.

Treatment Summary February 2019

From Date : 02-01-2019

To Date : 02-28-2019

Zone : All

Material : All

Task : All

Material	Amount	Area Treated	Application Rate	Times
Altosid WSP	276 ea	0.86 acre	322.68 ea / acre	2 times
Altosid XR	20 ea	0.05 acre	435.54 ea / acre	5 times
Altosid XRG	40 lb	6.67 acre	6 lb / acre	1 times
Aquabac XT	2280 fl oz	285 acre	8 fl oz / acre	36 times
B.I.I. Briquets	30 ea	0.07 acre	435.54 ea / acre	4 times
Cocobear	564 fl oz	1.47 acre	384.02 fl oz / acre	15 times
Duel 50%	448 fl oz	285.35 acre	1.57 fl oz / acre	4 times
Sustain MBG	63 lb	8.4 acre	7.5 lb / acre	3 times
Talstar P	0.68 gal	2.02 acre	0.34 gal / acre	8 times

Task Time Summary February 2019

From Date : 02-01-2019

To Date : 02-28-2019

Zone : All

Employee Name : All

Task Time Summary			
Task	Total Time	Total Timesheets	Total Time
Administrative	960:00 hrs	180	
Adulticide	08:43 hrs	8	
AM Briefing	70:04 hrs	148	
Annual Leave	139:45 hrs	57	
Assist	09:54 hrs	5	
Building & Grounds Work	533:12 hrs	156	
Chicken Program	12:53 hrs	19	
Computer Repair	104:18 hrs	13	
Daily Paperwork	30:38 hrs	95	
Field Experiment	25:00 hrs	4	
Fog Mission Serv Req	00:02 hrs	2	
Hand Adulticide	08:24 hrs	15	
Holiday	260:00 hrs	26	
Insectary	64:00 hrs	19	
Inventory	09:41 hrs	6	
Lab Experiment	34:15 hrs	15	
Landing Rate	00:56 hrs	1	
Larvicide	66:26 hrs	66	
Mechanics Time	260:22 hrs	30	4224:45 hrs
Meeting	300:45 hrs	77	
Mosquito Trap BG	18:16 hrs	96	
Mosquito Trap CDC Oc	22:23 hrs	18	
Mosquito Trap ID	15:00 hrs	8	
Mosquito Trap OV	01:40 hrs	48	
Mosquito Traps Misc	68:44 hrs	51	
Produce Papers & Programs	136:01 hrs	30	
Public School Program	16:00 hrs	4	
Resupplying Trucks	16:21 hrs	37	
Sick Leave	97:15 hrs	17	
Site Inspect	407:07 hrs	239	
Source Reduction (tires)	02:00 hrs	1	
Supervisory	59:23 hrs	12	
Training Classroom	342:55 hrs	45	
Training Field	57:33 hrs	12	
Travel	46:05 hrs	21	
Vehicle Maintenance	18:44 hrs	21	



SOCIETY FOR VECTOR ECOLOGY

1966 COMPTON AVENUE, CORONA, CA 92881-3318 USA

Phone: (951) 340-9792, Fax: (951) 340-2515

E-mail: valerie@sove.org

BOARD MEMBERS - 2019

January 25, 2019

PRESIDENT

ULRICH BERNIER, Ph.D.

PRESIDENT-ELECT

LYLE PETERSEN, Ph.D.

VICE-PRESIDENT

ISIK UNLU, Ph.D.

PAST-PRESIDENT

LAL MIAN, Ph.D.

EXECUTIVE DIRECTOR

MAJOR S. DHILLON, Ph.D.

REGIONAL DIRECTORS

SOUTHWESTERN

STEVE MULLIGAN

NORTHWESTERN

DAVID SULLIVAN

NORTH CENTRAL

NICOLE ACHEE, Ph.D.

SOUTH CENTRAL

MELISSA NOLAN, Ph.D., MPH

NORTHEASTERN

ISIK UNLU, Ph.D.

SOUTHEASTERN

RUI-DE XUE, Ph.D.

EUROPEAN

ALEXANDRA CHASKOPOULOU, Ph.D.

BRAZILIAN

PAULO PIMENTA, Ph.D.

ASIAN

QIYONG LIU, Ph.D.

INDIAN

ASHWANI KUMAR, Ph.D.

EDITORS

JOURNAL

MARC KLOWDEN, Ph.D.

ANNE KLOWDEN, Ph.D.

NEWSLETTER

LAL MIAN, Ph.D.

ADMINISTRATOR

VALERIE MONTIGNY

ASSOCIATE EXECUTIVE

DIRECTOR/WEBMASTER

WILLIAM VANDYKE

Dear Rudi Xue:

As you know that SOVE celebrated its 50th Anniversary at its birth place in California last year. Many SOVE members tirelessly contributed to the success of the society over many years. On this special occasion, the SOVE Board selected 50 people to be bestowed upon a special plaque in recognition of their exemplary service to the Society. It is my privilege to notify you that you are one of the recipients of such honor for your commitment and dedication to SOVE. Due to continued support of its members such as yourself, SOVE has expanded its horizon to Europe, China, Latin America, and India by establishing SOVE regions in those same areas. We are working hard to establish new regions in North Africa, Sub Saharan Africa and Asia Pacific. Our membership is at the highest level since the society's inception in 1968.

Thank you for your commitment and service and for being a part of the "Family of SOVE"!

With Gratitude,

Major S. Dhillon Ph.D.

Executive Director

SOVE

1966 Compton Ave

Corona, Ca.

USA 92881-3318

PH: 951-340-9792

ATTACHMENTS

**THE 16TH ARBOVIRUS SURVEILLANCE
AND MOSQUITO CONTROL WORKSHOP**

**in CONJUNCTION with the NE 1443 REGIONAL PROJECT'S
5TH ANNUAL MEETING and the FMCA'S NE REGIONAL MEETING
(18 CEU's)**

Sponsored by AMCD, USDA/CMAVE, & NE 1443 Regional Project Committee

**Being held at AMCD's New Base Station Complex at:
120 EOC Drive, St. Augustine, Florida, 32092**

MARCH 26-28, 2019

www.amcdsjc.org

to include:

AMCD's 70TH ANNIVERSARY CELEBRATION

PROGRAM AGENDA (tentative)

MONDAY, MARCH 25, 2019

1:00pm Tour of AMCD's new facility and laboratory

TUESDAY, MARCH 26, 2019

7:30am Registration ... AMCD Staff

PANEL SESSION:

Moderator: Dr. Rui-De Xue, Executive Director, AMCD, St. Augustine, FL

8:25am Welcome & Introduction ... Chairperson Mr. Gary Howell, AMCD's Board of Commissioners; Dr. Ken Linthicum, Center Director, USDA/CMAVE, and Mr. Donald Powers, President-Elect of the FMCA

8:30am **KEYNOTE SPEAKER:** Some thoughts on leadership and tips on Improving your organizational and personal performance in the vector control industry ... **Dr. Stanton Cope, Vice President, Technical Products and Services, Atlantic Paste & Glue, Past President of the American Mosquito Control Association (AMCA)**

9:10am **GUEST SPEAKER:** Outbreak of dengue fever and its control effort in Sri Lanka **Dr. Vindhya S. Aryaprema, Medical Entomologist, Ministry of Health, Sri Lanka**

9:30 A.M. - BREAK (CUTTING of the CAKE for AMCD'S 70 ANNIVERSARY CELEBRATION)

INTERNATIONAL SESSION:

Moderator: Dr. Uli Bernier, National Program Leader, USDA/ARS, Washington DC

10:00am Outbreak of Dengue and its vector mosquito control in Saudi Arabia ... **Dr. Abdulaziz D.M. Althbyani, Professor & College Dean, University of Tabuk, Saudi Arabia**

10:20am The prevalence and diversity of autogenous *Culex pipiens molestus* in Taiwan ... **Dr. Kun-Hsien Tsai, Associate Professor, College of Public Health, National Taiwan University, Taipei, Taiwan**

- 10:40am Evaluation of spatial and contact repellents against vector mosquitoes ... **Dr. Hitoshi Kawada, Associate Professor, Institute of Tropical Medicine, Nagasaki University, Japan**
- 11:00am ATSB and bait stations for control of malaria vector mosquitoes in Mali ... **Dr. Sekou F. Traore, Director, Malaria Research & Training Center, University of Bamako, Mali**
- 11:20am ATSB and bait stations for control of *Aedes albopictus* in St. Augustine, FL ... **Dr. Gunter Muller, Professor, University of Bamako, Mali and Hebrew University, Israel**
- 11:35am Impact of 5 kinds of mosquito adulticides on non-target honey bees ... **Dr. Hussein Sanchez-Arroyo, Professor, Colegio de Postgraduados, Mexico**
- 11:50am Recent advances in arboviral diagnostics using ready-to-use primers & probe assay ... **Dr. Remi Charrel, Professor, Faculte de Medicine de Marseille, Marseille, Cedex 05, France**
- 12:00pm New products from UNIVAR for 2018 ... **Mr. Jason E. Conrad, Industry Specialist, UNIVAR**

12:10 PM - LUNCH BREAK (in the Helicopter Hangar) (provided by UNIVAR)

PROGRAMS & ASSOCIATIONS:

Moderator: Dr. John C. Beier, Professor & Section Chair, Department of Public Health & Environmental Sciences, University of Miami, Miami, FL

- 1:10pm The Florida DACS mosquito control program update ... **Ms. Marah Clark, Environmental Administrator, Mrs. Caitlin Gill, Environmental Specialist III, Entomology and Pest Control Section, DACS, Tallahassee, FL**
- 1:25pm Update on the American Mosquito Control Association ... **Mr. Christopher Lesser, SE Regional Director, Assistant Director, Manatee County Mosquito Control District**
- 1:35pm Update on the SOVE ... **Dr. Uli Bernier, President of the SOVE & National Program Leader, USDA/ARS, Washington, DC**
- 1:45pm Exotic insects and its surveillance and control efforts ... **Dr. Leroy Whilby, Chief, Bureau of Entomology, Nematology, and Plant Pathology, DACS/DPI, Gainesville, FL**
- 2:00pm Update on the FMCA ... **Mr. Donald Powers, President-Elect of the FMCA, and Sale Representative, FMC**
- 2:10pm Program overview of the Tangipahoa Mosquito Abatement District, LA ... **Mr. Dennis Walette, Director, TMAO, Hammond, LA**
- 2:25pm Brevard County's unique local partnership between UF's extension office and Mosquito Control ... **Mr. Joe Walter, Agricultural Agent, UF/IFAS and Joseph M. Faella, Department Director, Brevard County Mosquito Control**
- 2:40pm Overview of research on surveillance and adulticiding in Manatee County Mosquito Control District ... **Mr. Chris Lesser, Assistant Director & Entomologist, Manatee County Mosquito Control District, FL**

2:55 P.M. - BREAK

DISEASE SURVEILLANCE:

Moderator: Dr. Nathan Burkett-Cadena, Assistant Professor, University of Florida, Florida Medical Entomology Laboratory, Vero Beach, FL

- 3:20pm Biology of EEE ... Dr. Michael Turell, Senior Arbovirologist (retired), US Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD
- 3:40pm The host interactions and ecological niches of *Culexeta melanura* and the wintertime transmission risk potential of EEE ... Ms. Kristi Miley & Dr. Tom Unnasch, Department Director, University of South Florida, Tampa, FL
- 3:50pm Is real-time arbovirus surveillance a dream or a reality? ... Dr. Nathan Burkett-Cadena, Assistant Professor, University of Florida, Florida Medical Entomology Laboratory, Vero Beach, FL
- 4:10pm New viruses of concern and their vectors, with a focus on Keystone virus ... Dr. J. Glenn Morris, Jr. Professor & Director, Emerging Pathogens Institute, UF, Gainesville, FL
- 4:20pm Arbovirus surveillance report in Florida, 2018 ... Dr. Andrea Morrison, Arbovirus Surveillance Coordinator, Bureau of Epidemiology, DOH, Tallahassee, FL
- 4:40pm Mosquito-borne disease surveillance in Texas, 2018 ... Dr. Whitney Qualls, Medical Entomologist, Texas Department of Health Services, Zoonosis Control Branch, Austin, TX
- 5:00pm Arbovirus and mosquito population surveillance in San Gabriel Valley, California ... Ms. Melissa Doyle, Scientific Program Manager, San Gabriel Valley Mosquito & Vector Control District, West Covina, CA
- 5:20pm Simultaneous detection of CHIKV, DENV and ZIKV in mosquitoes by RT-PCR ... Dr. Steven Su, Scientific Director, West Valley Mosquito & Vector Control District, Ontario, CA
- 5:40pm Jamestown Canyon virus revisited: are we neglecting and under recognized disease ... Dr. Theodore G. Andreadis, Director, The Connecticut Agricultural Experiment Station; Head, Center for Vector Biology and Zoonotic Diseases, New Haven, CT.
- 5:50pm. End of the Session
- 6:00pm DINNER & LECTURE (HELICOPTER HANGAR) (ALL PARTICIPANTS): Overview of the National Estuarine Research Reserve, GTM program ... Dr. Michael Shirley, Director, Guana, Tolomato, Matanzas Estuarine Research Reserve, Florida DEP, St. Augustine, FL

WEDNESDAY, MARCH 27, 2019

BIOLOGY & ECOLOGY:

Moderator: Dr. Dan Kline, Research Entomologist, USDA/CMAVE, Gainesville, FL

- 8:25am Transcriptional profile of *Aedes aegypti* Leucine-rich repeat proteins in response to arbovirus ... Dr. Liming Zhao, Research Assistant Professor, University of Florida, IFAS/FMEL, Vero Beach, FL
- 8:40am Mosquito colonies maintained at USDA-ARS, CMAVE, Gainesville, FL ... Dr. Dan Kline, Research Entomologist, Matthew (Haze) Brown and Tyler Carney, USDA/CMAVE, Gainesville FL

- 9:00am Does smoke equal fire? Investigating natural *Wolbachia* infections in an *Aedes aegypti* population from Florida ... **Dr. Derrick Mathias, Assistant Professor, University of Florida, FMEL, Vero Beach, FL**
- 9:20am Community composition and year-round abundance of vector species of mosquitoes make Miami-Dade County, Florida, a receptive gateway for arbovirus entry into the United States ... **Dr. Andre Wilke, Post Doctorate Associate, University of Miami, Miami, FL**
- 9:35am Impacts of water level in the bromeliad plant packets on oviposition and egg hatching of *Aedes aegypti* ... **Dr. Christopher Bibbs, Entomologist, AMCD, Mr. Parker Brown, Intern, and Dr. Rui-De Xue, Director, AMCD, St. Augustine, FL**
- 9:50am DENV4 infection of local *Aedes aegypti* in the absence of a human index case ... **Mr. Sean Boyles and Dr. Rhoel D.R. Dinglasan, Center Director, CDC Southeastern Center for Excellence in Vector-borne Diseases, UF/EPI, Gainesville, FL**
- 10:00am What's happening in Volusia County ... **Mrs. Sue Bartlett, Director, Volusia Mosquito Control District, New Smyrna, FL**
- 10:10am Florida mosquito resistance and its impact on vector competence ... **Dr. Chelsea T. Smartt, Associate Professor, UF/IFAS/FMEL, Vero Beach, FL**

10:20 A.M. - BREAK

ATTRACTANT / TRAP / REPELLENT:

Moderator: Dr. Carolina Efstathion, Molecular Entomologist, AMCD, St. Augustine, FL

- 10:35am Update on fly traps against biting and filth flies ... **Dr. Jerry Hogsette, Lead Scientist & Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL**
- 10:50am Summary report on the AGO studies against *Aedes aegypti* in the past several years ... **Dr. Noel Hahn, Entomologist, Department of R & D, SpringStar Inc., WA**
- 11:05am Prototype for evaluation of Dynatrap for mosquito control ... **Dr. Karen E. McKenzie, Director of Entomology, Dynamic Solutions Worldwide, LLC**
- 11:15am Semi-field evaluation of three light traps against *Aedes aegypti* ... **Mr. Nicholas Acevedo, Dr. Christopher Bibbs, & Dr. Rui-De Xue, AMCD, St. Augustine, FL**
- 11:25am Evaluation of a novel rotated trap, modifying AGO trap with a suction fan, and modifying 00ZZZero trap ... **Dr. Rui-De Xue, AMCD, Dr. Shawn Shi & Dr. Judy Zhu, Wuxi CDC, Dr. Emad Khater, Ain Shams University, Egypt, Dr. Christopher Bibbs, Dr. Daniel Dixon, AMCD, St. Augustine, FL**
- 11:40am Large-scale deployment of CDC/AGO traps for control of *Aedes* mosquitoes in 2018 ... **Mrs. Dena Autry, Assistant Supervisor, AMCD, St. Augustine, FL**
- 11:50pm New products and technology from ADAPCO for 2018 ... **Mr. Chris Pederson, ADAPCO, Sanford, FL**

12:00 P.M. - LUNCH BREAK (provided by ADAPCO & FMCA)

THE FMCA'S NORTHEAST REGIONAL ROUNDTABLE MEETING ... Dr. Peter Jiang, FMCA's NE Regional Director

LARVAL & ADULT CONTROL:

Moderator: Dr. J.R. Bloomquist, Professor, Department of Entomology and Nematology, EPI, University of Florida, Gainesville, FL

- 1:10pm Update on sterile insect technique (SIT) for control of *Aedes aegypti* ... Dr. Daniel A. Hahn, Professor, Department of Entomology & Nematology, University of Florida, Gainesville, FL
- 1:30pm Field evaluation of *Wolbachia*-infected male mosquitoes against natural populations of *Aedes albopictus* and *Ae. aegypti* ... Dr. Stephen Dobson, Professor, Department of Entomology, University of Kentucky & MosquitoMate, Inc.
- 1:50pm Evaluation of residual larvicide treated plant saucers against *Aedes albopictus* larvae in semi and field conditions ... Dr. Peter Jiang, Entomologist & Director, Gainesville City Mosquito Control Division, Gainesville, FL
- 2:00pm Evaluation of CocoBear and Aquatain AMF to control larval *Culex quinquefasciatus* in organically enriched aquatic habitats ... Dr. James Cilek, Entomologist and Department Head Testing and Evaluation Department, Navy Entomology Center of Excellence, Jacksonville, FL. Mr. R. Aldridge, Mr. J. Fajardo, Dr. S. Britch, Dr. K. Linthicum, USDA/CMAVE, Gainesville, FL
- 2:15pm Summary 0.5 G for mosquito control in catch basins and other uses including mosquitoes, animal health and flea control ... Dr. Jennifer Williams, Entomologist, MGK, MN
- 2:35pm Evaluation of pyrethroid and botanical barrier insecticides against *Aedes albopictus* in the laboratory and field ... Mr. Steven T. Smoleroff, Biotech, Dr. Christopher Bibbs, Entomologist, and Dr. Rui-De Xue, Director, AMCD, St. Augustine, FL
- 2:45pm Public Health Practice: Vector-borne disease preparedness in Miami-Dade County, Florida ... Dr. John Beier, Professor & Section Chair, Department of Public Health and Environmental Science, University of Miami, Miami, FL

3:00 P.M. - BREAK

INSECTICIDES AND RESISTANCE:

Moderator: Dr. Christopher Bibbs, Entomologist, AMCD, St. Augustine, FL

- 3:20pm Resistance to repellents and pyrethroids in the Puerto Rico strain of *Aedes aegypti* ... Dr. J. R. Bloomquist, Professor, Dept. of Entomology and Nematology, EPI, University of Florida, Dr. K. Linthicum, Center Director, USDA/CMAVE, Dr. L. Yang, UF, Dept. of Entomology & Nematology, Gainesville, FL, Uli Bernier, National Program Leader, USDA/ARS
- 3:40pm Update on Nanoceria-based pesticides ... Dr. Mona Mathew, Postdoctoral Scholar and Dr. Bradley Willenberg, Assistant Professor, Department of Internal Medicine, University of Central Florida, Orlando, FL.
- 3:55pm Bifenthrin resistance and *Culex* vectors in Beach Mosquito Control District ... Mr. Michael Riles, Entomologist, Beach Mosquito Control District, Panama, FL
- 4:10pm Transfluthrin spatial repellent on military materials is effective across multiple environments for mosquitoes and sand fly ... S.C. Britch, K.J. Linthicum, R.L. Aldridge, F.V. Golden (USDA-ARS-CMAVE); A. Ponlawat, A. Pongsiri (AFRIMS); J. Blersch, J. Wahi (CBJTC), J. Wittie, J. Henke, K. Hung, M. Snelling, A. Gutierrez (CVMVCD); W. Helmey (NECE); A. Chaskopoulou, I. Giantsis, M. Miaoulis (USDA-ARS-EBCL)

- 4:25pm Update on artificial blood meal for mosquito feeding ... **Dr. Christopher Batich, Professor, Department of Materials Science and Engineering, University of Florida, Gainesville, FL**
- 4:40pm Fir needle plant essential oil significantly increases knockdown, but not toxicity, of diverse public health insecticides against *Aedes aegypti* ... **Dr. Ed Norris, Post Doctorate, Dr. J. R. Bloomquist, Professor, University of Florida, EPI, Gainesville, FL**
- 5:05pm Advances in olfactometry ... **Mr. James Estaver, Director, Sigma Scientific LLC, Micanopy, FL**

5:10 P.M. END OF THE SESSION

THURSDAY, MARCH 28, 2019

Moderator: Dr. Paul T. Leisnham, Associate Professor, University of Maryland, College Park, Maryland

NE-1443: BIOLOGY, ECOLOGY & MANAGEMENT OF EMERGING DISEASE VECTORS (5th Annual Mtg.)

- 8:30am: **KEYNOTE SPEAKER:** Overview of USDA/ARS, Medical, Veterinary, and Urban Entomology Programs ... **Dr. Uli Bernier, National Program Leader, USDA/ARS, Washington DC**
- 9:00am The efficacy of UV LED mosquito and fly traps ... **Dr. Phil Koehler, Professor, Department of Entomology & Nematology, University of Florida, Gainesville, FL**
- 9:20am: Parameter estimation for modeling *Rhipicephalus sanguineus* L. residential infestations ... **Ms. Yuexun Tian, Ph.D. Student, Dr. Cynthia Lord, Associate Professor, Dr. Phillip Kaufman, Professor, Dept. of Entomology & Nematology, University of Florida, Gainesville, FL**
- 9:30am: Overview of the AMCD intern and visiting scientist program ... **Ms. Molly Clark, Education Specialist, AMCD, St. Augustine, FL**
- 9:50am: Preliminary Business Meeting
 - o Chairperson's Report
 - o CSREES Representative's Report
 - o Administrative Advisor's Comments
- 10:20 am: Introductions - Each participant briefly introduces themselves and their interests
- 10:30 am: **BREAK**
- 11:00 am: A new software for mobile phone application to improve customer service ... **Mr. Richard Weaver, Business Manager, AMCD, St. Augustine, FL**
- 11:20am: Review of Major Objectives and Goals
 - Objective 1: Development of parasitic arthropod catalogue/resources
 - Objective 2: Integrated tick management and community-centered approaches, including understanding the biology and ecology of novel and emerging tick-borne pathogens
- 11:50am: New products from Central Life Sciences for 2018 ... **Mrs. Kelly Deutsch, Central Life Sciences**
- 12:00 pm: **LUNCH BREAK (provided by Central Life Sciences)**
- 1:00 pm: The mosquito tracheal system: structure/function analyses of carbon dioxide handling and larval development ... **Dr. Paul Linser, Professor, University of Florida, Whitney Laboratory, St. Augustine, FL**

- 1:15 pm: Review of Major Objectives and Goals (*continued*)
Objective 3: *Ae. albopictus* and *Ae. aegypti*, with a focus on surveillance, range expansion, ecology, genetics, climate change and disease risk
Objective 4: New Control Tools, including socio-ecological approaches
Objective 5: Training and training tools
- 3:00 pm: **BREAK AND GROUP PHOTO**
- 3:30 pm: Group discussions on potential funding sources and development of prospective collaborative proposals
- 4:30 pm: Wrap-up including discussion of 2020 Annual Meeting site, dates, venue and agenda
- 5:00 pm: **WORKSHOP END**

For additional information about NE 1443 meeting, see the NE 1443 Website at:

<http://www.nimss.org/projects/view/mrp/outline/16677>

Or contact Dr. Paul T. Leisnham at leisnham@umd.edu