





# Applied research and teaching opportunities between the EU and China 中欧合作应用研究和教学活动

Dr Ana Mateus, RVC

LinkTADs Final Event
19th October 2016, Kunming, China





#### Main objectives of LinkTADs 主要目标



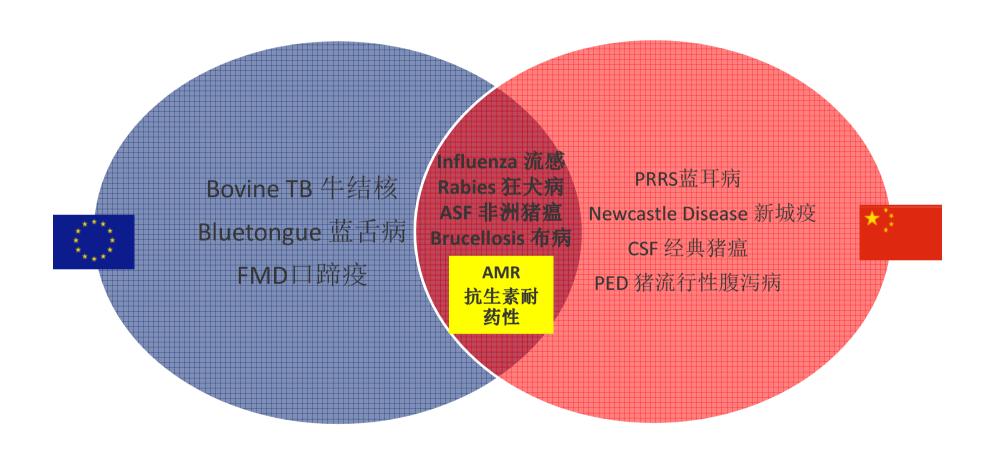


- Animal health priorities in EU and China 中欧动物健康重点关注的议题
- Synergies and gaps 协同合作和差异
- Potentials for collaborations between EU and China 中欧合作潜在机遇
- The Field Epidemiology Training Programme for Veterinarians (FETPv) 现场流行病学培训项目



## Animal Health priorities in EU and China 中欧动物健康重点关注的议题



































### 

- Workshops 工作会
  - Risk-based surveillance 基于风险的监测
  - Vaccine and diagnostic technology development 疫苗和诊断技术
  - **–** ...
- Webinars 网络研讨会
  - Rabies prevention and control 狂犬病防控
  - H7N9 epidemiology & surveillance
     H7N9流行病学和检测
  - Research agendas 研究计划议程
  - **–** ...
- Exchange programmes 交换项目
- Sustainable collaboration tools 持续性合作
  - Partnerships 伙伴关系
  - Project applications 项目申请





#### 

Based on the training models implemented for human epidemiology

基于人医流行病学方面的培训模式

- US CDC- Epidemic Intelligence Service (EIS) program (1953) 美国疾控中心-流行病学信息部门项目
- · FETP 现场流行病学
  - Initial objective: Train field epidemiologists in developing countries 最初目标: 在发展中国家培训现场流行病学家
  - "Learn by doing"- 20-25% in classroom + <u>75-80% field work</u> "在实践中学习"- 20-25%课堂 讲授+<u>75-80% 实地工作</u>
  - Owned by individual countries 由各个国家所有
  - Meet the needs of each country 符合各国需求

#### • PR China 中国

- FETP introduced in 20012001年引入中国
- FETPV in 20102010年开始兽医现场 流行病学培训

70 FETPs have been established in 70 countries

80% of graduates continue to serve in public health programs in their home countries

Over 3,100 FETP graduates play a key role in disease surveillance and response



## Strengthening veterinary capacity in Asia 加强亚洲兽医能力



- Intensification of animal production systems 养殖集约化
- 75% of emerging pathogens affecting humans are zoonotic 75%的感染人类的新病原是人畜共患
- Emergence of Avian Influenza viruses and AMR are major public and animal health issues 禽流感病毒和抗生素耐药性成为主要公共健康以及动物健康问题
- Secure provision of skilled veterinary staff 确保兽医从业者技术熟练
  - Government services 政府服务
  - Private industry 私人企业



### China Field Epidemiology Training Program for Veterinarians















中国动物卫生与流行病学中心 China Animal Health and **Epidemiology Center** 









And many more: Netherlands, USDA, CIRAD, US CDC, Murdoch University, FLI...



#### C-FETPV- Objectives 中国兽医现场流行病学项目-目标



- Interdisciplinary (One Health) approaches in field epidemiology training 在现场流行病学培训中应用同一健康方法
- Create a sustainable program 创立可持续项目
- Standardize the knowledge and methodology on applied veterinary epidemiology for China 为中国的应用兽医流行病学提供标准化的知识和方法
- Strengthen partnerships among national, provincial and international institutions and foster collaboration 加强国家级和省级机构间的伙伴关系并深化合作
- Nurture trainers and mentors within a national network for training veterinary epidemiologists in China 在中国的流行病学家网络中培养中方导师



# C-FETPV- Course programme 课程内容



- Five modules over 2 year-period:
- 两年期共5个模块
  - Introductory course (4 weeks) 基础入门课程(4周)
  - Module 1: Outbreak investigation + Field exercise(s) (4 weeks) 模块1: 暴发调查+实地练习 (4周)
  - Module 2: Surveillance (4 weeks) 模块2: 监测(4周)
  - Module 3: Risk Analysis (2 weeks)模块3:风险分析(2 周)
  - Module 4: Integration and advanced topics (4 weeks)模块4:综合及高级课程(4周)







### FETPV- Cohorts 往期培训情况





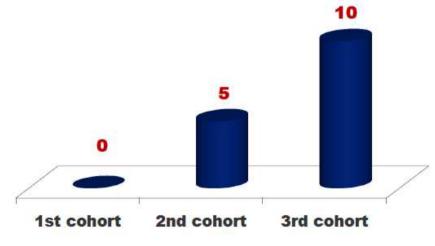


# C-FETPV- Training of trainers 中方导师培训



- Build training capacity at national and local levels 在国家和地方层面培养导师的培训能力
- Ensure sustainability of C-FETPV programme on the long term 保证项目 的长期可持续性
- Regular monitoring and program evaluation 定期检查和项目评估



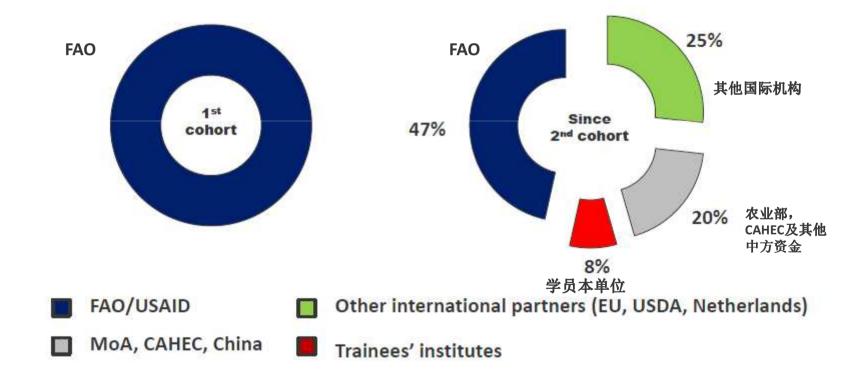


No. of Chinese Trainers 中方导师人数



#### C-FETPV- Resources 资金来源







#### C-FETPV- Other training activities 其他活动



### Joint courses between C-FETPV and C-FETP 人 医和兽医联合课程

- Synergies between medical and veterinary epidemiologists 人医和兽医流行病学家协作
- Promotes networking 促进交流网络建立
- Identification common goals ("One Health") 找到共同目标('同一健康')







#### C-FETPV- Other training activities 其他活动



#### Veterinary Epidemiology workshop for Executives 兽 医流行病学高级培训

- CAHEC/ EU-China Trade Project 动卫中心/中欧世 贸项目资助
- Senior Officials 高层官员
- National and provincial level Animal Disease
   Prevention and Control Centers (ADCs) 国家和省级动物疫病控制中心
- Aim- Strengthen ability and capacity for: 目标-加强能力:
  - Effective animal and public health programs
     有效的动物和公共卫生工作
  - Implementation of the National Medium and Long-Term Plan for Prevention and Control of Animal Epidemics (2012-2020). 落实动物疫 病防控中长期规划内容





#### C-FETPV- Other training activities 其他活动



### **Veterinary Epidemiology Training for University Academics**

#### 兽医流行病学大学师资培训

- FAO ECTAD China FAO中国-跨界动物 疫病应急中心
- Planning and development of undergraduate curricula for epidemiology 计划和发展本科流行 病学课程
  - Teaching methodologies 教学方法
  - Development of case studies 积累 研究案例
- Postgraduate training 研究生培训





## Research opportunities (C-FETPV) 研究机遇

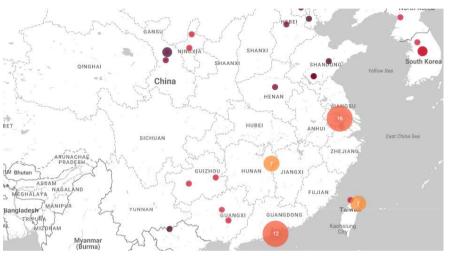


#### Re-emergence of H7N9 in Eastern China (Oct 14) 2014 年10月H7N9在中国东部再次出现

- Impact local poultry trade (Jan-Feb 15) 影响贸易
  - Reduced demand live birds 活禽交易减少
  - Decreased prices 价格下降
  - Closure of wet markets 活禽市场关闭
  - Severe disruption of supply chains 供应链中断

### Involvement FETPV network FETPV学员参与工作

- Research projects 研究项目
  - Markets supply chains 市场供应链
  - Epidemiology & evolution of influenza viruses 流感的流行病学和病毒进化
- Training 培训
  - Value chain analysis 市场链分析
  - Surveillance 监测
  - Biosecurity measures 生物安全措施







### List of FETPV projects – 3<sup>rd</sup> cohort



Title of study 研究题目	Institute 单位
Cross-sectional study of Pseudorabies herd prevalence and risk factors of transmission between intensive pig farms in Shanghai, 2015 伪狂犬病在上海集约化养殖厂的场群流行率以及传播风险因子的横断面研究	Shanghai ACDC 上海动物疫病预防 控制中心
A cross-sectional study of PR sero-prevalence and potential risk factors of breeding pigs in porcine breeding farms in Jiangxi province 江西省原种猪场伪狂犬血清阳性率和潜在风险因子的横断面研究	Jiangxi ACDC 江西动物疫病预防 控制中心
Prevalence and risk factors analysis of large-scale pig farm infected diarrhea caused by virus in the winter of 2016 in L county of Shandong Yantai city 山东省烟台市2016年冬季大规模猪场病毒性传染性腹泻的流行率调查和风险分析 The relevant factors and demand of Porcine reproductive and respiratory syndrome virus vaccine in	Shandong ACDC 山东动物疫病预防 控制中心 Liaoning ACDC
pig farm 猪场PRRS病毒感染的相关因子以及对相关疫苗需求的分析	辽宁动物疫病预防 控制中心
Goat Brucellosis in X County of Hubei Province: Seroprevalence, Risk Factors and Occupational Population's Knowledge, Attitudes and Practices (KAPs) 湖北省某县的山羊布病:血清阳性率,风险因子和从业人员的知信行情况调查	Hubei ACDC 湖北动物疫病预防 控制中心
Study of the poultry trade network in Shanghai 上海的禽类贸易网络调查	Shanghai ACDC 上海动物疫病预防 控制中心



### List of FETPV projects – 3<sup>rd</sup> cohort (cont)



Project name	Institute
	China Animal Health and Epidemiology
Broiler value chain analysis in Yangtze and pearl river delta region	Center
扬子江和珠江三角洲地区的肉鸡价值链调查	中国动物健康与流行病学中心
A Cross-Sectional Study on Prevalence of Tuberculosis in Dairy Farms in L	
County, Shaanxi Province	Shanxi ACDC
山西省某县的奶牛场牛结核流行率横断面调查	山西动物疫病预防控制中心
Village Animal Epidemic Prevention Staff Brucellosis Infection of Risk Factors	
Survey in X County	Ningxia ACDC
某县村级动物防疫员的布病感染风险因子调查	宁夏动物疫病预防控制中心
Study on Risk Factors of Brucellosis in a City-Sized Goat Farm of Hennan	
研究河南某市规模山羊场的布病风险因子	Henan ACDC
	河南动物疫病预防控制中心
	China Animal Health and Epidemiology
A cross-sectional study of Peste des Petits Ruminants free in 2 counties in Tibet	Center
西藏自治区两个县小反刍兽疫无疫情况的横断面研究	中国动物健康与流行病学中心
Epidemiological study on Tuberculosis in Shanghai Wusi Diary Farm	Shanghai ACDC
上海某奶牛场牛结核的流行病学调查	上海动物疫病预防控制中心
Quantitative risk assessment of H7N9 entrance into wholesale live bird	China Animal Health and Epidemiology
markets in Yangtze and pearl river delta regions 2013-2014	Center
2013到2014年扬子江和珠江三角洲地区H7N9传入批发活禽市场风险的定	中国动物健康与流行病学中心
量分析	



# Thank you for your attention! 谢谢!



#### **Project Coordinator:**

Food and Agriculture Organization of the United Nations (FAO)

Mr. Daniel Beltran-Alcrudo

E-mail: <u>Daniel.BeltranAlcrudo@fao.org</u>

Phone: + 3906 5705 3823 Fax: + 3906 5705 3057























