



China-UK CERAD

CENTER OF EXCELLENCE FOR RESEARCH
ON AVIAN DISEASES

山东省品牌国际合作基地

SHANDONG PROVINCE BRAND INTERNATIONAL COOPERATION BASE

中英禽病国际研究中心

CHINA-UK CENTRE OF EXCELLENCE FOR RESEARCH ON AVIAN DISEASES

山东省科技厅

二〇一七年



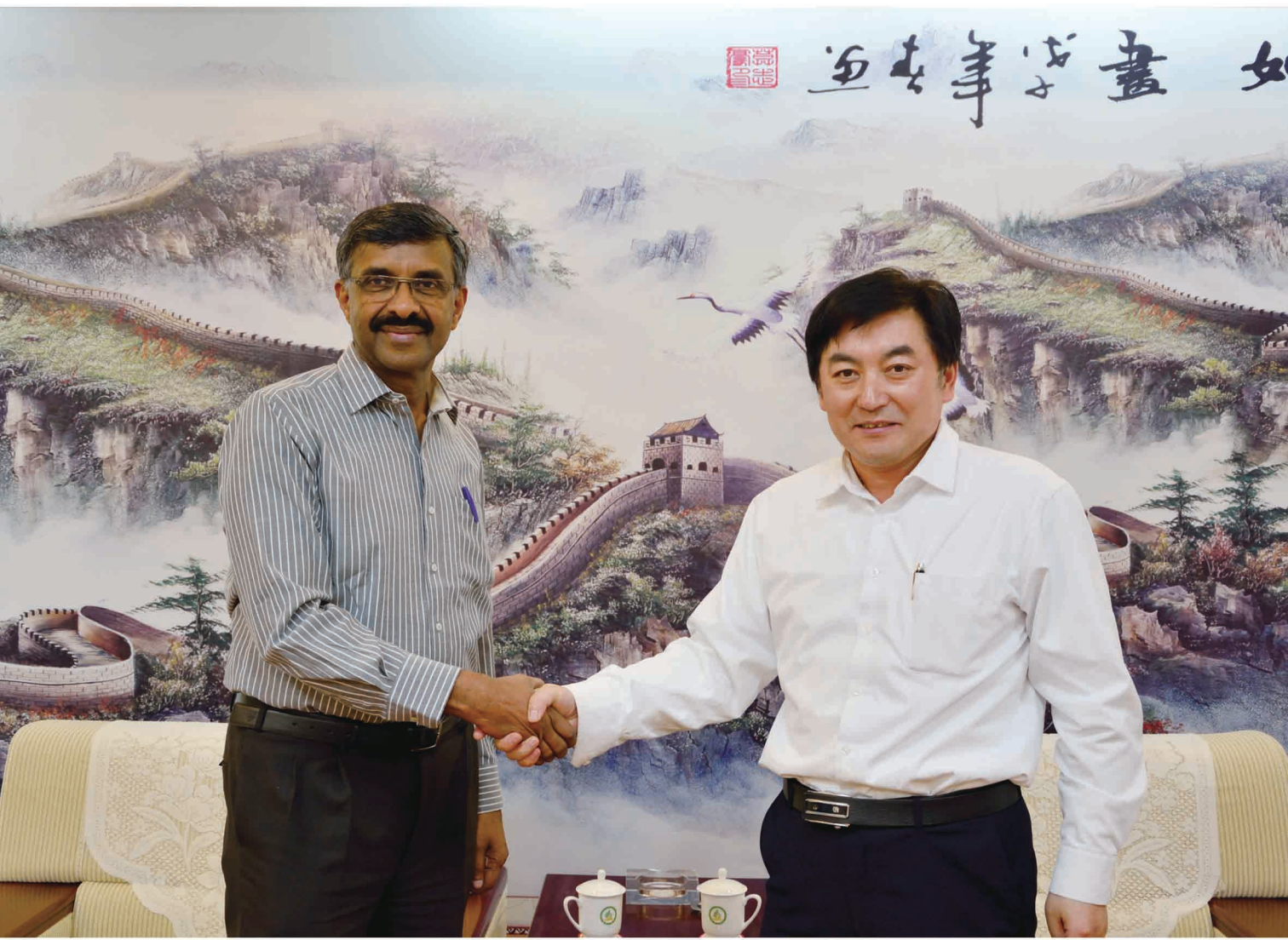
中国山东省滨州畜牧兽医研究院
Shandong Binzhou Animal Science & Veterinary Medicine Academy



英国 Pirbright 研究所
The Pirbright Institute, UK

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主任寄语

Director's message

家禽养殖业是我国的支柱产业之一，也是集约化养殖水平最高、养殖种类多、养殖数量大、现代化水平较高的产业，长期以来，我国家禽存养量与家禽产品一直处于世界领先地位。但是，在禽病防控方面与发达国家相比仍有较大的差距。近年来，家禽新疫病频发、老病新发、病原变异、传播途径改变、症状改变、易感动物增加等疫病的流行新特点，都要求我们不断加大科研力度，深入开拓创新，加强禽病研究的国际交流与合作，攻坚克难，优势集成，争取在生物制药、生物饲料、重大疫病防控等高精尖领域取得国内国际领先地位。运用产业化的组织形式，将研究攻关、中试、产业化开发示范与推广应用相结合，将高新技术尽快转化为现实生产力，保障养禽业健康发展。

中英禽病国际合作研究中心成立以来，为中英禽病国际研究搭建了新的平台，圆满完成了各年度的任务和目标，在申请国际合作项目、合作研究攻关、合作培养人才等方面取得了可喜进展。我们诚挚邀请国内外禽病专家加盟中英禽病国际研究中心，共同开展交流合作，希望在这个国际新平台上优势互补，共享资源，创新发展，合作共赢，为世界禽病研究与保障养禽业健康发展做出积极的贡献。

The poultry breeding industry is one of the pillar industries in China. It is also the breeding industry with the highest level of intensive farming, the largest number of breeding species, the biggest amount of birds, and the highest level of modernization. For a long time, the country's poultry stocking and poultry products have been in the leading position in the world. However, there is still a big gap in the prevention and control of poultry diseases compared with developed countries. In recent years, the new characteristics of epidemics such as frequent new diseases of poultry, new diseases, new pathogens, changes in transmission routes, changes in symptoms, and increased risk of susceptible animals require us to continuously increase innovate and strengthen scientific research on poultry diseases. The international exchanges and cooperation of research, tackling difficulties, integrating advantages, and striving for domestic and international leading position in high-tech fields such as bio-pharmaceuticals, biological feeds, and prevention and control of major epidemics. Using industrialized organizational forms, we will combine research, pilot, industrialization, development, demonstration, and promotion, and transform high-tech into real-life productivity as soon as possible to ensure the healthy development of the poultry industry.

Since the establishment of the China-UK International Research Center for Poultry Diseases, it has set up a new platform for international research on poultry diseases, successfully completed the tasks and goals of each year, and obtained applications in international cooperation projects, collaborative research, and training of talents. It is a welcome development. We sincerely invite domestic and foreign poultry experts to join the China-UK International Research Center for Poultry Diseases to jointly carry out exchanges and cooperation. We hope to complement each other in this new international platform, share resources, innovate and develop, and win-win cooperation. The aim is to make positive contributions to the world's poultry disease research and guarantee the healthy development of the poultry industry.

中心简介

The center
introduction



本中心由英国Pirbright研究所和中国山东省滨州畜牧兽医研究院联合成立，通过设立联合研究项目、开展禽病控制新技术互访交流培训、组织国际会议等方式，为英国和中国的科学家和学生提供最先进的研究和培训机会。

Jointly established by The Pirbright Institute, UK and Shandong Binzhou Animal Science and Veterinary Medicine

Academy, China, China-UK CERAD is a virtual centre for the state of the art research and training for UK and Chinese scientists and students through establishment of joint research projects, exchange visits for training and education on new technologies for disease controls as well as organising international conferences.

中英禽病国际研究中心旨在为禽病领域科研、从业人员建立一个联系中国与英国的合作与交流平台。通过这一平台，中英双方可以开展合作研究，拓展合作机缘，在全球范围内建立多学科研究联盟，以更好地探索养禽业中禽病的发病机制、经济损失、传播生物学和控制策略。

China-UK CERAD is aiming to establish networking and discussion platform for researchers and stakeholders working on or having interests in avian disease between two collaborating countries, China and UK. Exploiting these collaborative research and networking opportunities, establishment of multi-disciplinary research portfolios globally to better understand the pathogenesis, economic losses, transmission biology and control strategies of avian diseases in production animals.



Pirbright
INSTITUTE

中英禽病国际研究中心

China-United Kingdom International Centre for Research on Avian Diseases

中国山东省滨州畜牧兽医研究院
Shandong Binzhou Animal Science & Veterinary Medicine Academy
英国 Pirbright 研究所
The Pirbright Institute, UK
二〇一五年四月 April 2015

发展历程

Development history



滨州市李维东副市长和Venugopal Nair教授为研究中心揭牌
Li Weidong, the vice major of Binzhou, launched the opening ceremony with Prof. Venugopal Nair

- 2015年4月，中英禽病国际研究中心启动仪式暨禽病研究进展论坛
• The inauguration of the China-UK International Research Center for Avian Disease and Symposium on Recent Advances in Avian Disease held in Binzhou, China, April 2015

- 2018年8月，上海，第四届中英禽病研究进展论坛
• The 4th China-UK Symposium on Recent Advances in Avian Disease Research, Shanghai, China, August 2018

- 2017年9月，英国吉尔福德，第三届中英禽病研究进展论坛
• The 3rd UK-China Symposium on Recent Advances in Avian Disease Research held in Guildford, UK, 2017

- 2016年3月，滨州，第二届中英禽病研究进展论坛
• The 2nd China-UK Symposium on Recent Advances in Avian Disease Research Symposium held in Binzhou, China, March 2016

- 2014年4月，英国动物卫生研究所姚永秀研究员到山东省滨州畜牧兽医研究院考察访问
• Prof. Yongxiu Yao, the Pirbright Institute, visited Shandong Binzhou Animal Science & Veterinary Medical Academy in April 2014,

- 2013年，就合作项目“中国禽白血病的净化”，高玉龙研究员和刘长军博士赴英国Pirbright研究所访问。
• Prof. Yulong Gao and Dr Changjun Liu visited the Pirbright Institute as part of the “grant eradication of ALV in China” in September 2013

- 2012年9月，就合作项目“中国-越南-英国伙伴关系——家禽病毒病防控”，王笑梅研究员与高玉龙研究员赴英国Pirbright研究所访问。
• Prof. Xiaomei Wang and Prof. Yulong Gao visited the Pirbright Institute as part of Partnership Award “China-Vietnam-United Kingdom Partnership in combating viral diseases of poultry” in September 2012

- 2011年8月，山东省滨州畜牧兽医研究院沈志强研究员访问Pirbright研究所，商讨合作。
• Prof. Zhiqiang Shen, the director of Shandong Binzhou Animal Science & Veterinary Medicine Academy, visited the Pirbright Institute for collaboration in Aug. 2011

领导关怀

Care from Leaders



中共中央总书记、国家主席习近平
会见全国人大代表沈志强研究员

Jinping Xi, Central Committee and
President of the National People's
Congress, met with Dr. Zhiqiang Shen,
a deputy to the National People's
Congress.

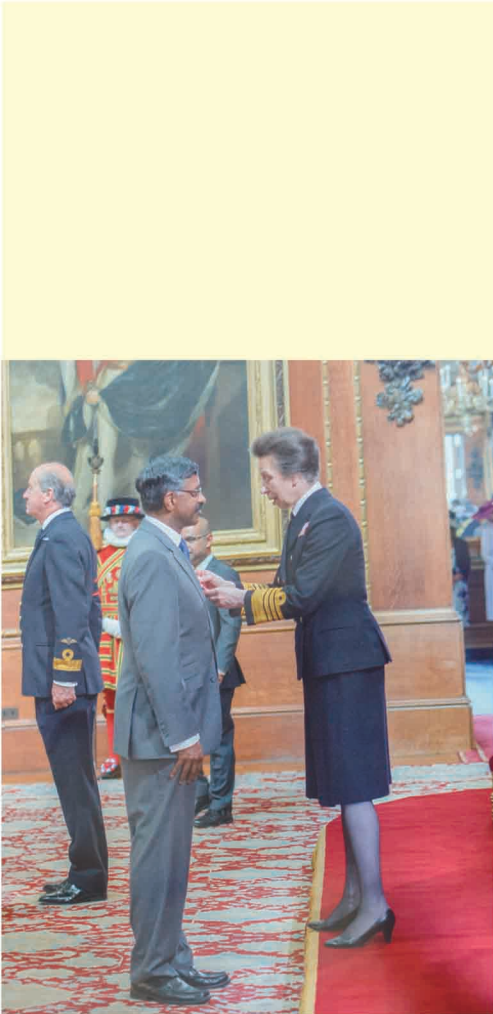
国务院总理李克强会见全国人大代表
沈志强研究员

Keqiang Li, Premier of the State Council
of the CPC Central Committee, met with
Dr. Zhiqiang Shen, a deputy of the
National People's Congress.



领导关怀

Care from Leaders



Venugopal Nair教授获得英国女王伊丽莎白二世帝国勋章
Prof. Venugopal Nair wins Queen Elizabeth II Special
OBE Award.

创新文化

Innovative culture



组织架构

Organizational structure



研究团队

Research Team

沈志强研究员在疫苗中心实验室
Dr Zhiqiang Shen, senior
researcher, is working in
the cell engineering laboratory



Venugopal Nair教授
在研究所做实验
Professor Venugopal Nair
is doing experiments at
the Institute.



姚永秀研究员在分子生物学实验室
Dr Yongxiu Yao, senior researcher, is working
in the molecular biology Laboratory



沈志强 研究员

中英禽病国际研究中心主任（中方）

第十、十一、十二、十三届全国人大代表

山东省滨州畜牧兽医研究院院长兼书记，研究员二级。

山东绿生物科技有限公司创始人/董事长。

Director of the China-UK International Research Centre for Poultry Diseases (Chinese)
Representatives of the 10th, 11th, 12th and 13th National People's Congress
Dean and Secretary of Shandong Binzhou Animal Husbandry and Veterinary Medicine Academy,
researcher level two.

Founder/Chairman of Shandong LVDUBio-science & Bio-technology Co., Ltd.

沈志强主任兼任中国畜牧兽医学会常务理事等多种学术团体职务、吉林大学、华中农大、山东农大青岛农大等多所高校兼职教授、博士、硕士生导师。我国知名的预防兽医学专家。1996年破格晋升为研究员，先后获得国家“万人计划——科技创业领军人才”、“国务院政府特殊津贴”、“国家有突出贡献的中青年专家”、“中国青年科技奖”、“全国先进科技工作者”“全国优秀科技工作者”、“农业部高级专家库高级专家”、“国际企业战略规划师”、“山东省泰山产业领军人才”、“山东省十佳专业技术人员”、“山东省先进工作者”等荣誉称号。主持国家省市项目30余项，获国家发明三等奖1项（首位）、省科技进步二等奖4项（首位）、全国产学研合作创新促进奖、全国技术市场金桥奖1项，山东省技术市场金桥奖一等奖2项（首位）。获国家新兽药证书6项，发明专利13项。主持研发了新兽药与饲料添加剂80多种，主持及参与制定国家、省、企业标准50余项。主编参编《现代兽医兽药大全—动物生物制品分册》、《兽医传染病学》等专著10余部，在国内外发表学术论文400余篇，有100余篇被SCI、EI、ISTP、Agris等国外权威刊物收录。培养博士后、博士、硕士研究生近百人次。

Director Zhiqiang Shen is the executive director of the Chinese Society of Animal Husbandry and Veterinary, and many other academic groups, including Jilin University, Huazhong Agricultural University, Shandong Agricultural University, Qingdao Agricultural University and other colleges and universities, part-time professors, doctoral and master's tutors. A well-known expert in preventive veterinary medicine in China. In 1996, he was promoted to an advanced researcher. He has successively won the national "Millions of Plan-Leading Talents in Technology and Entrepreneurship", "Young and Middle-aged Experts with Outstanding Contributions from the State", "Special Allowance of the State Council", "China Youth Science and Technology Award", and "National Advanced" "Science and technology workers", "National Excellent Science and Technology Workers", "Advanced Experts in the Advanced Experts Bank of the Ministry of Agriculture", "International Enterprise Strategic Planner", "Taishan Province Leading Talents in Shandong Province", "Top Ten Professional and Technical Personnel in Shandong Province", "Shandong Province advanced workers and other honorary titles. He has presided over more than 30 national and provincial projects, won the third prize of the national invention (first), the second prize of the provincial scientific and technological progress (the first), the national production and research cooperation innovation promotion award, the national technology market Golden Bridge Award, Shandong Provincial Science Market Golden Bridge Award 2 first prize (first place). He has won 6 national veterinary drug certificates and 13 invention patents. He has researched and developed more than 80 kinds of new veterinary drugs and feed additives, and presided over and participated in the formulation of more than 50 national, provincial and enterprise standards. He has edited more than 10 monographs and as the editor-in-chief of the "Modern Veterinary Veterinary Drugs - Animal Bioproducts Volume", "Veterinary Infectious Diseases", published more than 400 academic papers at home and abroad, and more than 100 articles have been included in foreign authoritative publications such as SCI, EI, ISTP, and Agris. Trained nearly 100 post-doctoral, doctoral and postgraduate students.



Venugopal Nair 教授

中英禽病国际研究中心主任（英方）
英国Pirbright特研究所禽致肿瘤病毒组组长
世界卫生组织马立克氏病参考实验室特聘专家
詹纳疫苗研究所研究员。

UK leader of China-UK Centre of Excellence for Research on Avian Disease.
Group leader of Avian Oncogenic Viruses, The Pirbright Institute
Designated Expert of Office International Des Epizooties (OIE) International Reference
Laboratory for Marek' s Disease.
Investigator of Jenner Institute, Oxford, United Kingdom

Pirbright研究所是世界领先的国际研究机构，主要致力于家畜病毒病的防控研究，Venugopal Nair OBE教授在Pirbright研究所作为高级研究员工作了25年，主要从事于家禽健康和禽病的课题研究。Venu教授同时兼任牛津大学人兽共患病系客座教授、帝国理工大学病毒学系客座教授、利物浦大学感染生物学系客座教授和詹纳疫苗研究所客座研究员。他还指导世界卫生组织马立克氏病参考实验室的工作。他对病毒诱导的癌细胞（观察表观基因组、非编码RNA、转录组和蛋白质组）的动态变化进行了广泛的研究，对致瘤性转化中的分子机制进行了综合性分析，并利用先进的基因组编辑工具来分析癌症中的分子通路。他对病毒多样性和毒力进化的研究表明了疫苗在驱使病毒毒力方面的潜在作用。他发表了150余篇文章，主编参编著作20余部，他对禽病研究的贡献获得了世界兽医家禽协会荣誉奖（2013年）并登上了2015年OBE的新年荣誉榜。获得了多个国内外基金资助。近期获得的资助项目包括：皇家学会国际研究教授学者项目“控制禽流感传染病促进中低收入国家可持续增长和粮食安全的创新”（£375,000）；牛顿基金资助的“中英禽病国际研究中心的禽病研究”，研究单位为Pirbright和山东省滨州畜牧兽医研究院（£500,000）。

Senior Research Scientist with over 25 years' experience in research into poultry health and avian diseases at the Pirbright Institute, one of the leading international research institutes working towards prevention and control of viral diseases of livestock. Pirbright. Prof. Nair also holds Visiting Professorship positions at Oxford University Department of Zoology, Imperial College London and University of Liverpool. He is also a Jenner Investigator and is a board member of the Jenner Vaccine Foundation at Oxford. He also leads the OIE Reference Laboratory on Marek' s disease. He has carried out extensive analysis of the dynamic changes of virus-induced cancer cells (looking at epigenomes, non-coding RNAs, transcriptomes and the proteomes) to develop an integrated profile of the molecular events in neoplastic transformation and make use of the advanced genome editing tools to dissect the molecular pathways in cancer. His research interests on viral diversity and evolution of virulence has demonstrated the potential role of vaccines in driving virulence. He has published around 150 peer reviewed articles and 20 books/Chapters, and his contributions to avian disease research were recognized through the admittance to the World Veterinary Poultry Association Hall of Honour (2013), and OBE in the New Year' s Honours list (2015). Won a number of grant applications from several National/International funders. Recent projects include (a) The Royal Society International Research Professorship on the project 'Innovations in control of avian infectious diseases for sustainable growth and food security in low and middle income countries (£375,000) (b) Newton Fund Project on 'Chian-UK Centre for Research on Avian Diseases' between Pirbright & Shandong Binzhou Animal Science & Veterinary Medical Academy (£500,000).



姚永秀 研究员

中英禽病国际研究中心副主任

Pirbright研究所禽致肿瘤病毒组研究员，执行主任

禽病毒micro RNA研究专家

CRISPR/CAS9重组病毒研究专家

Vice director of China-UK Centre of Excellence for Research on Avian Disease.

Researcher of viral oncogenesis group

Research expert of avian virus microRNA

CRISPR/CAS9 Research expert of recombinant virus

长期从事分子生物学与分子病毒学前沿研究，在禽流感、禽马立克氏病、禽白血病、鸭瘟等病毒病的致病机理研究、新型BAC化疫苗研究、杆状病毒表达等方面积累了大量的研究成果。尤其近几年，姚永秀博士发现了多种禽病毒编码小RNA，这些小RNA在家禽病毒中发挥着重要的作用，她还发现在重要的病毒基因/基因组3'UTR插入组织特异性miRNA靶序列可以阻断致癌病毒的致癌性，这些发现在国际禽病研究领域产生了巨大的影响，也将在未来禽病毒致病机理研究、禽病毒疫苗研究等方面起到重要的指导作用。近期研究的CRISPR技术在鸡以及病毒基因组编辑中的应用为动物抗病育种研究、新型疫苗研发及病毒治病机理等方面开拓了广阔的前景。姚博士先后在国际行业核心期刊发表论文20多篇，其中包括国际著名病毒学杂志5篇，两篇被选为“JVI亮点”栏目优秀论文，参编著作2部，连续7年获得突出表现奖/特殊贡献奖，先后受邀在国际会议上做会议发言10次。

She has long been engaged in the frontier research of molecular biology and virology, and has accumulated a large number of researches on the pathogenesis of avian influenza, avian Marek's disease, avian leukemia, duck plague and other viral diseases, new type BAC vaccine research, and baculovirus expression. Especially in recent years, Dr. Yao has discovered a variety of poultry virus-encoded small RNAs that play an important role in poultry virus disease. She also found insertion of tissue-specific miRNAs in important viral gene/genomic 3'UTRs. The target sequence can block the tumorigenicity induced by the oncogenic virus. These findings have had a huge impact in the field of international poultry disease research, and will also play an important role in the future research on the pathogenesis of avian virus disease and the research of avian virus vaccine. The recent research on the application of CRISPR technology in chicken and viral genome editing has opened up broad prospects for animal disease breeding research, new vaccine development and viral treatment mechanism. Dr. Yao has published more than 20 papers in core international journals, including 5 internationally renowned virology journals. Two papers have been selected as excellent papers in the "JVI Highlights" column, and two books have been compiled. She has won outstanding performance awards/special contribution award for seven consecutive years, also has been invited to make a speech at international conferences around 10 times.



Munir Iqbal 教授

Pirbright研究所禽流感组首席科学家与研究组组长
巴基斯坦兽医与动物科学大学客座教授
葛兰史克流行病学中心顾问团成员

Chief Scientist and Research Team Leader of Avian Influenza Group of Pirbright Institute
Visiting Professor of the University of Veterinary and Animal Science, Pakistan
Member of the Advisory Board of the GlaxoSmithKline Epidemiology Center

长期从事禽流感病毒前沿研究，在禽流感病毒遗传变异研究、家禽流感防控的疫苗与免疫策略研究、禽流感病毒亚型感染的快速鉴别诊断等方面取得了大量成果，先后主持项目22项，在国际行业核心期刊发表论文36篇。他在研究病毒进化对病毒抗原性、毒力、传播及感染宿主的影响等方面居于世界领先水平，所研发的禽流感亚型快速鉴别诊断技术与新型疫苗已经先后在欧洲、亚洲多个国家开展临床应用，为世界禽流感防控计划提供强大的技术支持。

他同时任病毒学杂志、自然科学报告、PLoS One等12家行业前沿杂志审稿专家。BBSRC, MRC, Wellcome基金等5个基因项目评审，世界禽病大会审稿专家。他先后组织举办第一届全球禽病研究联盟会议2015、巴基斯坦禽流感研讨会2016等5个大型国际会议，兼任巴基斯坦兽医与动物科学大学客座教授，葛兰史克流行病学中心顾问团成员，先后应邀在国际大型学术会议上做会议报告39次。

He has been engaged in the frontier research of Avian Influenza virus for a long time, and made a lot of achievements in the research on genetic variation of Avian Influenza virus, vaccine and immune strategy involved prevention and control of poultry influenza, and rapid diagnosis of Avian Influenza virus subtype infection. He has presided over 22 projects and published 36 papers in core international journals. He is at the forefront of research on the effects of virus evolution viral antigenicity, virulence, transmission and host infection. The rapid differential diagnosis and new vaccines for Avian Influenza subtypes that he developed have been applied in Europe and Asia. Which has been providing strong technical support for the World Avian Influenza prevention and control program.

He is a reviewer for 12 industry leading magazines such as the Journal of Virology, the Natural Science Report, and the PLoS One. He served as BBSRC, MRC, Wellcome Fund and other five genetic project reviews, and the reviewers of the World Poultry Congress. He has organized five major international conferences such as the first Global Alliance for Poultry Disease Research 2015 and the Pakistan Avian Influenza Symposium 2016. He is also a visiting professor at the Pakistan Veterinary and Animal Science University and a member of the advisory board of the Gramske Epidemiology Center. He was invited to attend major international academic conferences as a speaker for 39 times.



丁 铲 研究员

中国农业科学院上海兽医研究所副所长、博士生导师
中国农科院二级杰出人才
部省级突出贡献中青年专家
省级农业科技先进工作者
中国农业科学院水禽传染病科技创新团队首席科学家

现任中国畜牧兽医学会兽医公共卫生学分会理事长、中国畜牧兽医学会理事、中国畜牧兽医学会禽病学分会常务理事、家畜传染病学分会常务理事、中国免疫学会兽医免疫分会委员、中华医学会微生物学与免疫学分会支原体组织常务委员，亚洲支原体组织执行理事。首届全国动物防疫专家委员会专家组副组长、国家兽药GMP工作委员会委员、中国兽药药典委员会委员、《中国动物传染病学报》第一届编辑委员会主任委员。扬州大学、广西大学、南京农业大学、吉林农业大学兼职教授。

长期从事禽病毒病、禽细菌病和禽支原体病的基础研究和防制方法研究工作，曾先后主持和参加了国家、部省级研究课题35项，包括973项目、863项目、“十五”国家科技攻关项目、国家自然科学基金重大项目、国家自然科学基金重点项目及国际合作项目等。获得省部级奖励7项，在国内外专业刊物发表研究论文300余篇，其中SCI收录100余篇，出版专著4部。

Chan Ding, Ph. D, professor, and deputy director of Shanghai Veterinary Research Institute, CAAS. He is also editor-in-chief of the Journal of Chinese Animal Infectious Disease, and director of Chinese Veterinary Public Health Association. Prof. Ding also holds the title of adjunct professor at Yangzhou University, Nanjing Agriculture University, Guangxi University, Jilin Agriculture University. He hosts several major scientific funds, including National Key Research and Development Program of China, Chinese National High-tech R&D Program, National Natural Science Foundation of China, Chinese Special Fund for Agro-scientific Research in the Public Interest Grant, etc. He has published over 110 papers on professional Journals and 4 professional books.

As a chief scientist of avian disease research team of CAAS, his research mainly focused on the interaction between host and avian virus, including Newcastle disease virus, Infectious bronchitis virus, duck hepatitis virus etc. His group currently focus on three main areas of research: i) the evolution of Newcastle disease virus and the mechanism behind it; ii) avian virus entry and innate host immune responses to virus infection; iii) the vaccine R&D based on reverse genetic system of NDV.



何 诚 教授

中国农业大学动物医学学院博士生导师

山东省滨州畜牧兽医研究院院长助理、泰山学者特聘专家

Ph.D. supervisor of College of Veterinary Medicine, China Agricultural University
Assistant to the of Shandong Binzhou Animal Science & Veterinary Medical Academy
And Expert of Taishan Scholar

主要研究方向包括：人兽共患病感染与免疫机制和畜禽抗病毒新兽药研制等方面。1990–1993期间在北京肉鸡生产联营公司中心兽医室担任组长职务；2005赴英国曼彻斯特大学和Moredun Research Institute做访问学者；2008–2010年期间任教育部科技部广东省科技特派员；2009–2012年曾主持中国–德国、中国–丹麦合作项目和中國–波兰合作项目；2013–2014到美国Morehouse School of Medicine做访问学者；2013–2015 三次应邀为日本兽药疫苗产业联盟进行大会报告；2015–2016应邀到巴基斯坦进行学术交流和一带一路合作；2015年入选山东省泰山学者特聘专家。何诚教授在山东省滨州畜牧兽医研究院工作期间，对于研究院的人才培养、国际交流合作、技术平台建设、科技项目申报等方面做出了突出贡献。

The main research includes: infection and immune mechanism of zoonosis and the development of new anti-virus veterinary drugs for livestock. During the period of 1990–1993, he served as the head of the veterinary department of the Beijing Broiler Production Joint Venture Center. In 2005, he worked in the University of Manchester and Moredun Research Institute as a visiting scholar. From 2008 to 2010, he, Joint appointed by the Ministry of Education and the Ministry of Science and Technology, served as Science and Technology Commissioner of Guangdong province. From 2009 to 2012, He has presided over the China–Germany cooperation project, China–Denmark cooperation project and China–Poland cooperation project. From 2013 to 2014, he went to Morehouse School of Medicine of USA as a visiting scholar. From 2013 to 2015, he has been invited to attend the Japanese veterinary drug vaccine industry alliance conference as a speaker threetimes report. From 2015 to 2016 he was invited to visit Pakistan for academic exchanges and cooperation of One belt, One road; In 2015, he was honored to be selected as a special expert for Shandong Taishan Scholars. Professor He Cheng has made outstanding contributions to Shandong Binzhou Animal Science and Veterinary Medicine Academy including personnel training, international exchange and cooperation, technology platform construction, and application for science and technology projects and so on during his work in the academy.



高玉龙 研究员

中国农业科学院哈尔滨兽医研究所研究员、博士生导师
山东省滨州畜牧兽医研究院客座研究员
科技部科技创新推进计划领军人才
中国农业科学院学科发展战略研究专家
滨州海纳工程突贡专家

Researcher and doctoral supervisor of Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences.
Visiting Researcher of Shandong Binzhou animal husbandry and veterinary medicine academy.
program Leader of Scientific and technological innovation promotion plan, Ministry of science and technology of China.
Expert of the discipline development strategy of the Chinese Academy of Agricultural Sciences.
Outstanding contribution expert of Binzhou Opening programme.

主要从事禽传染病研究，主持国家科技支撑、教育部留学回国基金等项目14项。发表论文170余篇，其中在JVI、JBC等国际权威学术期刊发表SCI论文80余篇。获农业部等科技奖励6项，发明专利14项。研制了法氏囊病等系列疫苗和诊断试剂，获4项新兽药证书，产品转让了6家大型生物制品企业，转化收入2300多万元。在国际上首次鉴定了禽偏肺病毒的细胞受体，阐明了禽偏肺病毒F蛋白的裂解机制，鉴定了细胞内利于病毒复制的蛋白酶，为研制高效疫苗奠定了重要理论基础。

He is mainly engaged in the research of avian infectious diseases, and presided over 14 projects such as the National Science and Technology Support and the Returned Fund for Study Abroad of the Ministry of Education. He has published more than 170 papers, including more than 80 SCI papers published in international authoritative academic journals such as JVI and JBC. He has won 6 scientific and technological awards from the Ministry of Agriculture and 14 invention patents. He has developed a series of vaccines and diagnostic reagents such as bursal disease, and obtained 4 new veterinary drug certificates. The products have been transferred to 6 large-scale biological products enterprises with a conversion income of more than 23 million yuan. The cellular receptors of avian pneumovirus were identified for the first time in the world. The cleavage mechanism of avian pneumovirus F protein was elucidated, and the proteases that facilitate viral replication in cells were identified, which laid an important theoretical foundation for the development of high-efficiency vaccines.

主要研究领域

Main research fields

■ 宿主-病毒相互作用机制

Host-virus interaction mechanism

■ 家禽重大病毒病遗传变异机制

Genetic variation mechanism of major virus disease in poultry

■ 火鸡疱疹病毒重组活载体疫苗

Turkey herpes virus recombinant live vector vaccine

■ 基因编辑技术及其在家禽疫苗研发中的应用

Gene editing technology and its application in research and development of poultry vaccine

■ 禽流感HA抗原决定簇与特异抗体研究

Study on avian influenza ha antigen determination cluster and specific antibody

■ 禽流感、禽白血病等重大禽病诊断技术

Diagnosis of avian flu, poultry leukemia and other major poultry diseases

■ 基于适体技术的新型快速流感诊断方法

A new rapid influenza diagnosis method based on adaptive technique

■ 传染性支气管炎减毒活疫苗

Live attenuated vaccine for infectious bronchitis

科研项目合作

Research project cooperation



- • BBSRC国际合作项目“同一个健康的启示——动物病毒病研究进展”，2013–2014
 - BBSRC International Cooperation Project "One Health Revelation–Progress in Research on Animal Viral Diseases", 2013–2014
- • BBSRC项目“中国–越南–英国伙伴关系——家禽病毒病防控”，2012–2016
 - BBSRC Project "China–Vietnam–UK Partnership–Prevention and Control of Poultry Viral Diseases", 2012–2016
- • 中国农业部农业科技引导计划（948项目）“禽白血病病毒的进化”，高玉龙研究员，中国农业科学院哈尔滨兽医研究所，2012。
 - The Agricultural Science and Technology Guidance Program of the Ministry of Agriculture of China(Project 948), "Evolution of Poultry Leukemia Virus", Professor YulongGao, Harbin Institute of Veterinary Medicine, Chinese Academy of Agricultural Sciences, 2012.
- • 中国国家兽医生物技术开放实验室研究基金项目“应用 CRISPR/Cas9系统构建表达靶向REVgRNA的重组马立克病–网状内皮增生症疫苗”，2016.1–2017.12
 - China National Veterinary Biotechnology Open Laboratory Research Fund Project "Application CRISPR/Cas9 System Construction Expression Recombinant Malik Disease-Neural Enrichment Vaccine Targeting REVgRNA ", 2016.1-2017 .12
- • 山东省外国专家局海外人才引进项目“双百专家计划”，山东省滨州畜牧兽医研究院，2018–2020
 - Shandong Provincial Bureau of Foreign Experts Overseas Talent Introduction Project "Double Hundred Experts Program", Binzhou Animal Husbandry Veterinary Research Institute, Shandong Province, 2018-2020
- • BBSRC牛顿基金，英国–中国–菲律宾–泰国猪和家禽研究项目“中英全球食品安全伙伴关系：防控禽类肿瘤病，实现家禽生产可持续发展”，2018–2020。
 - BBSRC Newton Foundation, UK-China-Philippines-Thailand Pig and Poultry Research Project "China-UK Global Food Safety Partnership: Prevention and Control of Poultry Tumor/Tumor Disease, Sustainable Development of Poultry Production ", 2018-2020.
- • 山东省品牌国际合作基地，禽病快速检测与防控技术。
 - Shandong Province brand international cooperation base, rapid detection and prevention and control technology of poultry disease
- • 国家自然科学基金中英国际合作项目。
 - National Natural Science Foundation-Sino-British International Cooperation Project

科研项目合作
Research project
cooperation

山东省人民政府“外专双百计划”项目启动仪式

2018年4月



2018年山东省人民政府“外专双百计划”项目启动仪式
The launch ceremony of "Double Hundred Foreign Experts Plan" project granted by Shandong Provincial People's Government in 2018.

2018年山东省品牌国际合作项目启动仪式
Shandong Provincial Brand International Cooperation Project launch ceremony in 2018

主要论文成果

The main paper, results



1. 氯化锂对细胞白血病J亚群禽白血病病毒复制的抗病毒作用

1. Qian K, Cheng X, Zhang D, Shao H, Yao Y, Nair V, Qin A. Antiviral effect of lithium chloride on replication of avian leukosis virus subgroup J in cell culture

2. 一种基于CRISPR/Cas9系统建立重组禽疱疹病毒载体疫苗的简便快速方法

2. Tang N, Zhang Y, Pedrera M, Chang P, Baigent S, Shen Z, Nair V and Yao Y. A simple and rapid approach to develop recombinant avian herpesvirus vectored vaccine using CRISPR/Cas9 system.

3. 双链RNA通过TIF和NF- κ B诱导鸡T细胞淋巴瘤凋亡

3. Zou H, Su R, Ruan J, Shao H, Qian K, Ye J, Yao Y, Nair V & Qin A. Double-stranded RNA induces chicken T-cell lymphoma apoptosis by TRIF and NF- κ B.

4. 网状内皮组织增生症病毒T株对gga-miR155的激活及其对细胞转化的作用

4. Yao Y, Vasoya D, Kgosana L, Smith L, Gao Y, Wang X, Watson M, and Nair V. Activation of gga-miR-155 by reticuloendotheliosis virus T strain and its contribution to transformation.

5. 禽白血病病毒J亚群通过NF- κ B/PI3K依赖性诱导IL-6表达促进VEGF表达

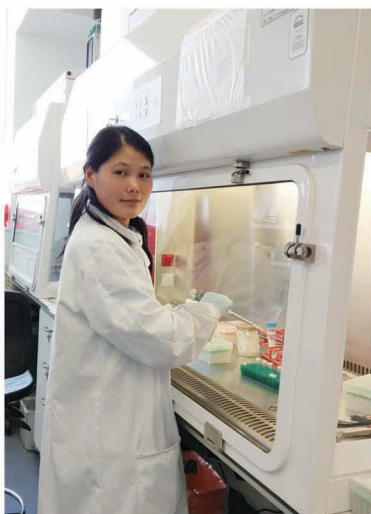
5. Gao Y, Zhang Y, Yao Y, Guan X, Liu Y, Qi X, Wang Y, Cui H, Liu C, Zhang Y, Gao H, Nair V, Wang X and Gao Y. Avian leukosis virus subgroup J promotes VEGF expression via NF- κ B/PI3K-dependent induction of IL-6 expression

人才培养

Talent training

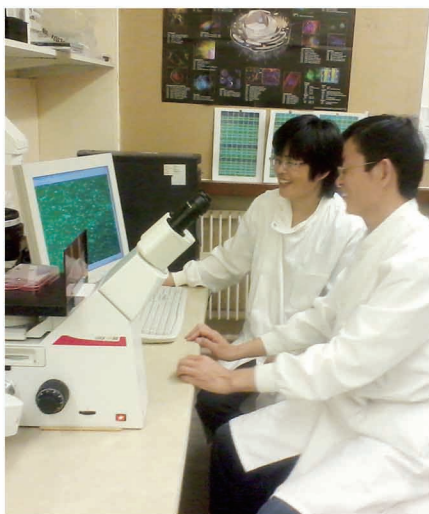


英国 Pirbright 研究所外景
External landscape of the Pirbright Institute.



唐娜博士在英国 Pirbright
研究所做实验

Dr.Na Tang was doing experiments
at the Pirbright Institute in UK.



姚永秀研究员指导郭广君
博士工作

Prof. Yongxiu Yaodirected Dr.
GuangjunGuo's work at the OIE
Reference Laboratory of
Marek' s disease in UK.

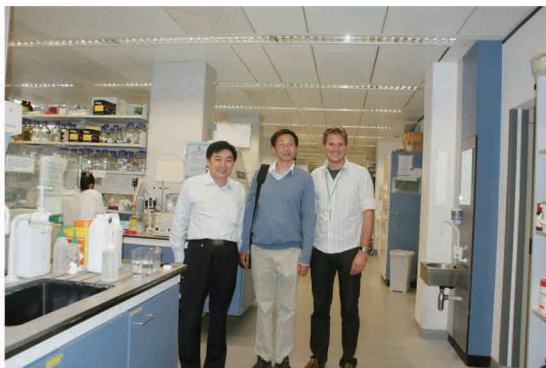
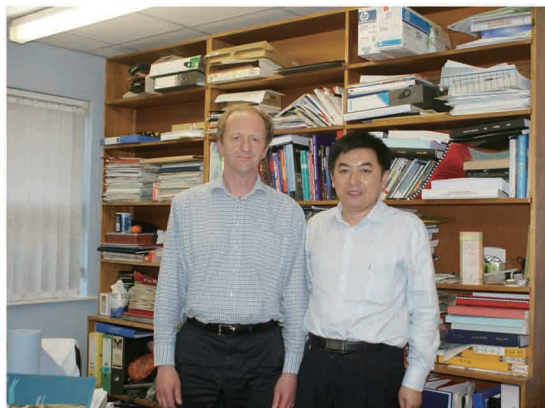


徐晴晴博士将要去英国 Pirbright
研究所做两年博士后

Dr.QingqingXu is going to the UK for a
two-year postdoctoral fellowship at the
Pirbright Institute in UK.

交流合作

Exchange and
Cooperation



2011年沈志强研究员应英国动物健康研究所与英国牛津大学Jenner学院Vengopal Nair教授的热情邀请，赴英国考察合作。

Warmly invited by Prof. Vengopal Nair, Dr. Zhiqiang Shen visited the Pirbright Institute, Jenner Institute and Oxford University in 2011.

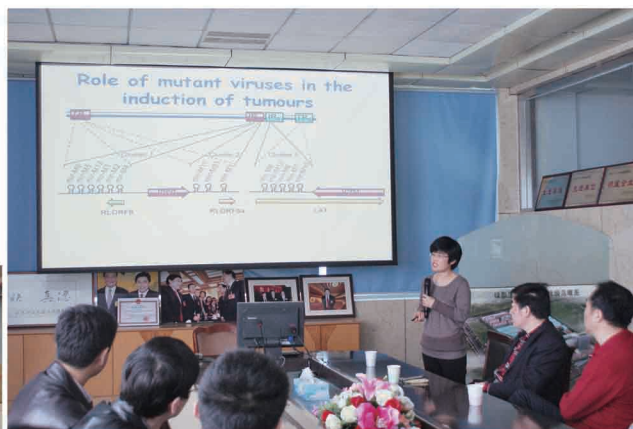
交流合作
Exchange and
Cooperation



2011年英国动物卫生研究所Venugopal Nair教授来我院作研究报告
Prof.Venugopal Nair in the Pirbright Institute came to our academy for research report in 2011

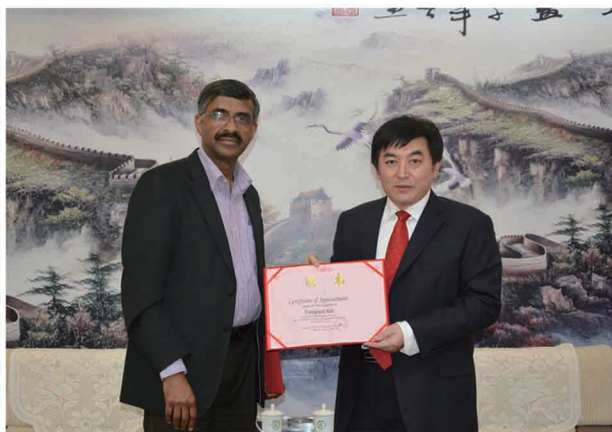


2011年英国动物卫生研究所Venugopal Nair教授、姚永秀研究员来我院考察访问
Prof. Venugopal Nair and Researcher Yongxiu Yao in the Pirbright Institute came to visit our academy in 2011



2012年英国动物卫生研究所姚永秀研究员来我院考察访问并做研究报告
Dr.Yongxiu Yao, working in the PirbrightInstitute, visited and gave a speech in the academy in 2012.





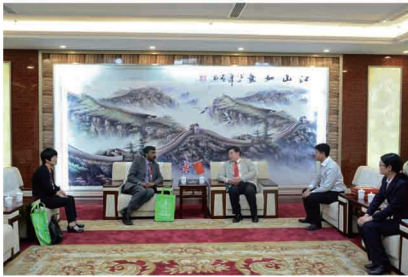
中英禽病国际研究中心成立暨中英禽病研讨会

The Sino-British Centre for Research on Avian Diseases and Symposium on Recent Advances in Avian Disease Research

2015年4月10-12 April 10-12th 2015 滨州绿都大酒店 Binzhou Lydu International Hotel

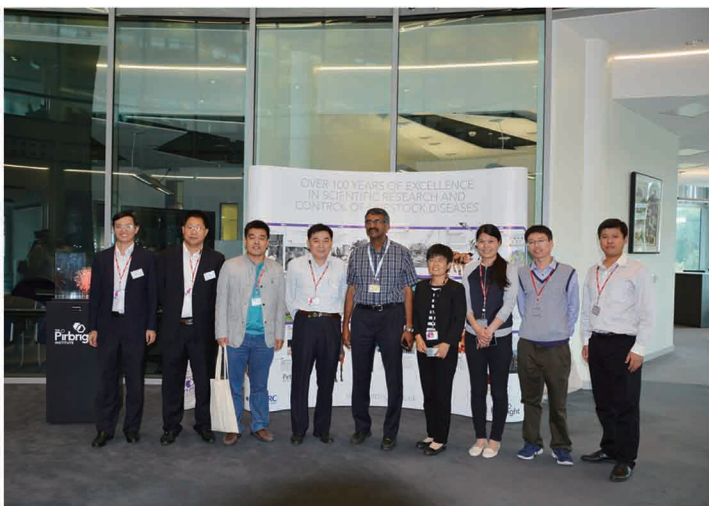


2015年4月中英禽病国际研究中心成立暨中英禽病进展国际研讨会(滨州)
The inauguration of the China-UK International Research Center for Avian Disease and Symposium on Recent Advances in Avian Disease held in Binzhou, China, April 2015 (Binzhou)



2016年3月第二届中英禽病研究进展国际研讨会(英、美、巴、中四国)

The 2nd China-UK International Symposium on Research Progress on Poultry Disease in March 2016 (UK, USA, PK, CN)



2017年9月第三届中英禽病研究进展国际研讨会在英国召开
The 3rd UK-China Symposium on Recent Advances in Avian Disease Research held in Guildford, UK, 2017

对外合作服务

Foreign cooperation services

人才培养

Talent training



Venugopal Nair教授给博士讲授实验结果
Prof. Venugopal Nair explained the results of the experiment to the doctor.

吉林大学兽医学博士后科研流动站 山东省滨州畜牧兽医研究院博士后科研工作站 联合培养基地

吉林大学研究生院
吉林大学畜牧兽医学院
二〇一一年十二月

吉林大学博士后联合培养基地
Postdoctoral Joint Training Base
with Jilin University

山东省滨州畜牧兽医研究院

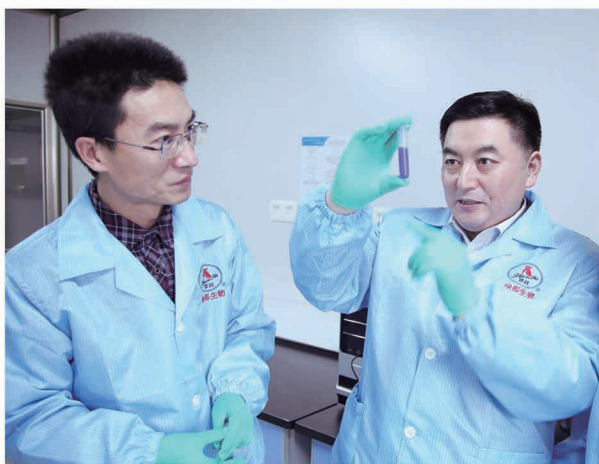
山东农业大学研究生联合培养基地

The Joint Postgraduate Training Base of Shandong Agricultural University

山东农业大学研究生学位委员会
山东农业大学
二〇一一年十二月

山东农业大学研究生联合培养基地
Graduate Joint Training Base with
Shandong Agricultural University

硕士、博士、博士后培养 Master's, doctoral, post-doctoral training



沈志强研究员指导博士观看实验结果
Prpf. Zhiqiang Shen directed the doctor to view experimental results.

山东省滨州畜牧兽医研究院

博士后科研工作站

POSTDOCTORAL PROGRAMME

人力资源和社会保障部 制发
全国博士后管理委员会

二〇一〇年八月

山东绿都生物科技有限公司

博士后科研工作站

POSTDOCTORAL PROGRAMME

人力资源和社会保障部 颁发
全国博士后管理委员会

二〇一五年九月

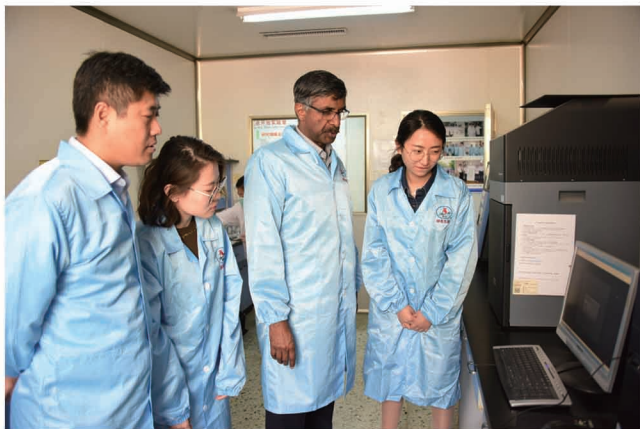
研究院和公司博士后科研工作站
Postdoctoral research stations of
research Institute and company

对外合作服务

Foreign cooperation
services

人才培养

Talent training



Venugopal Nair教授指导博士观察实验数据

Prof. Venugopal Nair directs young scientist to observe experimental data

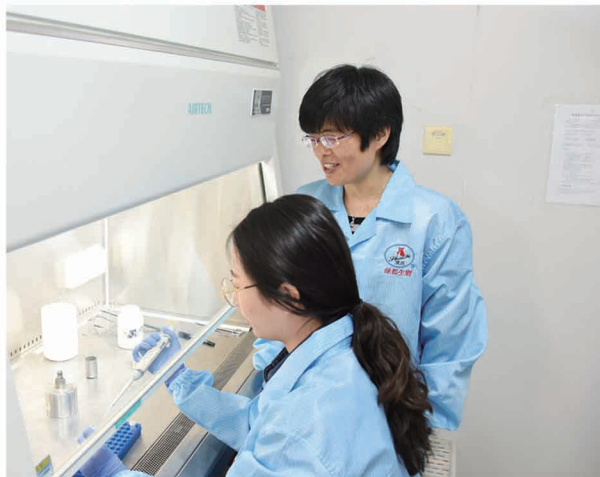
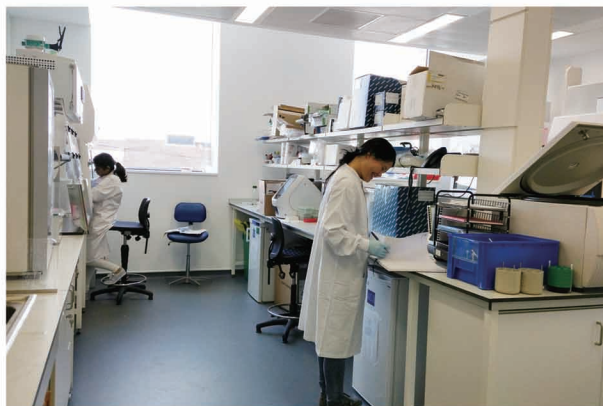


英国Pirbright 研究所外景

External landscape of the Pirbright Institute.

访问学者、短期培训
Visiting scholars, short-term training

不同国家的研究人员在英国Pirbright 研究所做访问学者
Visiting scholars from various countries studied in the Pirbright institute.



姚永秀研究员指导博士做实验

Prof. Yongxiu Yao directed the doctor to do experiments.

对外合作服务

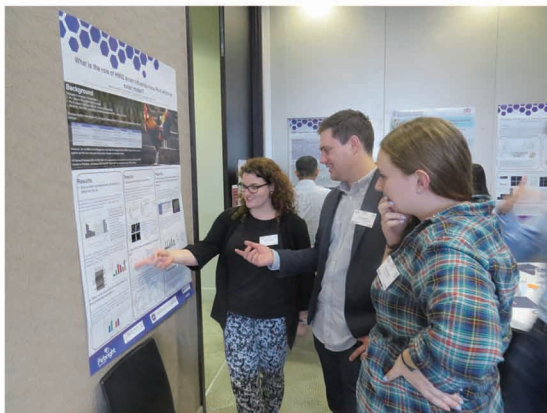
Foreign cooperation
services

国外讲座培训

Foreign seminar
training



中国农业科学院哈尔滨兽医研究所王笑梅所长做报告
Prof. Wang Xiaomei, the deputy director of Harbin
Veterinary Research Institute, CAAS, is giving a speech.



参会博士研究生壁报交流
Postdoc students are exchanging their ideas.



Pirbright研究所Erica博士做报告
Dr Erica Bickerton is showing her presentation of
research progress on infectious bronchitis virus.

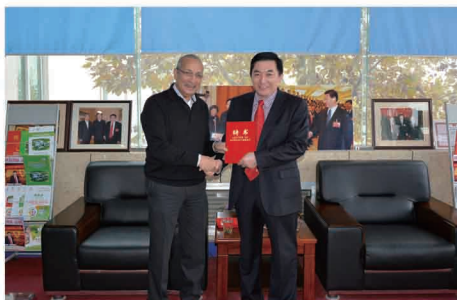


Pirbright研究所禽流感病毒组首席科学家Munir Iqbal博士
与参会代表
Dr Munir Iqbal, head of the Avian Influenza virus (AIV)
group, is talking with delegates.

国内讲座培训
Domestic seminar
training



热烈欢迎出席2014中德（滨州）健康养鸡新技术国际研讨会的



2014健康养鸡新技术国际研讨会
2014 International Symposium on New Technologies
for Healthy Chicken Raising



2018蛋鸡产业绿色发展新技术研讨会暨绿都生物科技第二届鸡病防控新技术研讨会

2018 Symposium on the Green and Healthy Development of the Egg and Chicken Industry and the 2th Symposium on the New Technology of Chicken Disease Control in the LVDUPark.

对外合作服务

Foreign cooperation
services

科研项目合作

cooperation on research
projects



联合申报中英国际合作项目 Joint declaration of China–UK international cooperation projects

- 中国科技部“家禽重要病毒病的预防、控制与净化”
- “Prevention, Control and Eradication of major avian viral Diseases” submitted in March 2017 by Colleagues in Harbin and Chengdu to Ministry of Science and Technology of China.
- 中国国家外专局“111计划”，扬州大学。
- “111 Plan” submitted to the Ministry of Education and Administration of Foreign Expert Affairs of China by colleagues in Yangzhou University, January 2018

横向科研项目合作开发 Cooperation of joint research projects



对外合作服务

Foreign cooperation services

家禽疫苗研发创新合作

Innovation and cooperation on research and development of poultry vaccine



沈氏禽用冻干疫苗
Shen's Freeze-dried vaccine for poultry



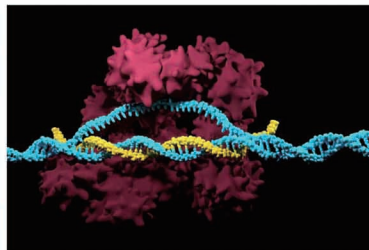
沈氏禽用灭活疫苗
Shen's inactivated vaccine for poultry

对外合作服务

Foreign cooperation services

禽病检测试剂研发创新合作

Innovation and cooperation on research and development of avian disease detection



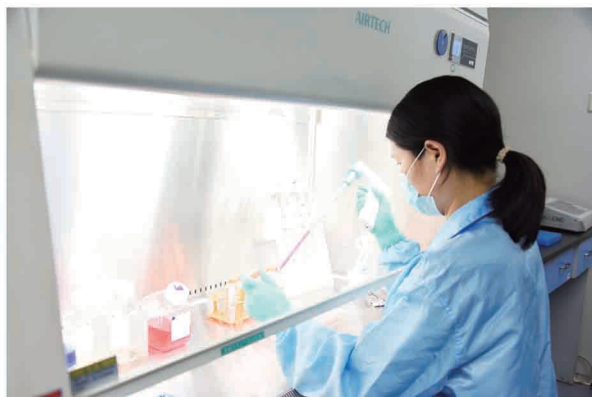
沈氏ELISA检测试剂盒
Shenshi ELISA test kit

对外合作服务

Foreign cooperation
services

禽病检测服务

Detection service for
Poultry disease



禽病检测服务 Testing service for Poultry disease

| 序号 | 疫病名称 | 样品要求 | 依据标准 / 方法 | 检测项目 |
|----|------------|-----------------|-------------|------|
| 1 | 新城疫 | 血清或卵黄 | HI/GIA | 检测抗体 |
| | | 肺、气管、喉头、脑、输卵管 | RT-PCR/GIA | 检测病原 |
| | | 肺、气管、喉头、脑、输卵管 | 鸡胚接种 | 分离病毒 |
| 2 | 禽流感 | 血清或卵黄 | HI | 检测抗体 |
| | | 肺、胰脏、脾、肝、卵巢、输卵管 | RT-PCR/GIA | 检测病原 |
| 3 | 鸡马立克氏病 | 血清 | ELISA/AGP | 检测抗体 |
| | | 性腺、肾、脾、肝、胰脏等 | AGP/GIA | 检测病原 |
| | | 性腺、肾、脾、肝、胰脏等 | 鸡胚 / 细胞接种 | 分离病原 |
| 4 | 禽脑脊髓炎 | 血清 | ELISA | 检测抗体 |
| | | 脑、肝、脾、胰等 | RT-PCR | 检测病原 |
| | | 脑、肝、脾、胰等 | 鸡胚接种 | 分离病原 |
| 5 | 鸡传染性贫血 | 血清 | ELISA | 检测抗体 |
| | | 肝、脾、胸腺、法氏囊 | PCR | 检测病原 |
| | | 肝、脾、胸腺、法氏囊 | 接种雏鸡 / 细胞 | 分离病原 |
| 6 | 鸡传染性喉气管炎 | 血清 | ELISA | 检测抗体 |
| | | 气管、肺、喉头 | PCR | 检测病原 |
| | | 气管、肺、喉头 | 细胞培养 | 分离病原 |
| 7 | 禽网状内皮组织增殖病 | 血清 | ELISA / 琼扩 | 检测抗体 |
| | | 血液、肝、脾、胰、性腺 | PCR/AGP | 检测病原 |
| | | 血液、肝、脾、胰、性腺 | 鸡胚接种 | 分离病原 |
| 8 | 鸡传染性鼻炎 | 血清 | ELISA/HI | 检测抗体 |
| | | 喉头、气管、肺、脑、咽喉拭子 | PCR / 细菌分离 | 检测病原 |
| 9 | 禽霍乱 | 血清 / 卵黄 | ELISA/AGP | 检测抗体 |
| | | 心血、肝、脾、肺 | 细菌分离 / GIA | 检测病原 |
| 10 | 鸡毒支原体 | 血清 | HI/ELISA | 检测抗体 |
| | | 血清 | ELISA/AGP | 检测病原 |
| | | 鼻窦、气管、肺等 | PCR | 检测病原 |
| | | 鼻窦、气管、肺等 | 细菌分离 | 分离病原 |
| 11 | 禽滑液囊支原体 | 血清 | HI/ELISA | 检测抗体 |
| | | 血清 | SPA/AGP/GIA | 检测病原 |
| 12 | 鸡传染性支气管炎 | 气囊、气管、关节液、输卵管 | 细菌分离 | 分离病原 |
| | | 血清 / 卵黄 | HI/ELISA | 检测抗体 |
| | | 气管、肾、肺、输卵管 | 鸡胚接种 / 细胞 | 分离病原 |
| | | 气管、肾、肺、输卵管 | RT-PCR | 检测病原 |

| 序号 | 疫病名称 | 样品要求 | 依据标准 / 方法 | 检测项目 |
|----|-----------------|----------------|--------------|--------|
| 13 | 减蛋下降综合症 | 血清或卵黄 | H1 | 检测抗体 |
| | | 脾、胸腺、输卵管 | PCR | 检测抗原 |
| | | 脾、胸腺、输卵管 | 鸭胚接种 | 分离病原 |
| 14 | 白血病 | 血清或卵黄 | ELISA | 检测抗体 |
| | | 全血、肺、蛋清、羽髓、鸡胚 | 鸡胚接种 | 分离病原 |
| 15 | 病毒性关节炎 | 血清或卵黄 | ELISA/AGP | 检测抗体 |
| | | 气管、肝、关节液、生殖器拭子 | 鸡胚接种 | 分离病原 |
| 16 | 鸡白痢 | 全血或卵黄 | 平板凝集试验 | 检测抗体 |
| | | 血液、内脏、粪便 | 细菌分离 | 分离病原 |
| 17 | 鸡传染性法氏囊 | 血清或卵黄 | ELISA/AGP | 检测抗体 |
| | | 法氏囊、脾、胸腺 | PCR/GIA | 检测抗原 |
| | | 法氏囊、脾、胸腺 | 鸡胚接种 / 细胞 | 分离病原 |
| 18 | 鸭病毒性肝炎 | 肺、肝、脾、肾 | RT-PCR | 检测抗原 |
| | | 肺、肝、脾、肾 | 鸭 / 鸡胚 | 分离病原 |
| 19 | 小鹅瘟 (番鸭细小病毒) | 血清 | ELISA/AGP | 检测抗体 |
| | | 心、肝、脾、肾、肠 | PCR/GIA | 检测病原 |
| | | 心、肝、脾、肾、肠 | 鸭 / 鹅胚接种 | 分离病原 |
| 20 | 鸭瘟 | 肝、脾、肾、法氏囊、生殖器 | PCR | 检测病原 |
| | | 肝、脾、肾、法氏囊、生殖器 | 鸭胚接种 | 分离病原 |
| 21 | 鸭呼肠孤病毒 | 血清 | ELISA/AGP | 检测抗体 |
| | | 肝、脾、肾 | AGP | 检测病原 |
| | | 肝、脾、肾 | 鸡胚接种 | 分离病原 |
| 22 | 鸭传染性浆膜炎 | 血清 | 凝集试验 / ELISA | 检测抗体 |
| | | 心血、脑、气囊、肝、肺 | 细菌分离 | 检测病原 |
| 23 | 其他细菌性疾病 | 病禽或典型病变组织 | 细菌分离 | 分离病原 |
| | | | 药敏实验 | 筛选敏感药物 |

招生信息

Enrolment
Information

英国家禽健康养殖培训班 招生简章

Poultry Healthy Breeding Training Course Admissions Guide in UK

招生对象

面向动物食品行业技术人员、兽医、管理人员等广大人群，系统地提升学员在禽传染性疾病的特征、诊断与防控等领域的理论水平与实践操作能力。

This Course is for technical staff, veterinary surgeons and managers from the AgriFood sector, who wish to learn more about the nature, diagnosis and control of infectious diseases of poultry.

办学单位

本课程由世界著名的动物病毒病研究机构英国 Pirbright研究所和英国诺丁汉大学动物医学与动物科学学院共同主办。

The Course is co-organised by The Pirbright Institute (a world-leading centre for research into viral diseases of livestock) and The University of Nottingham (School of Veterinary Medicine and Science).

授课地点

第一阶段：

培训单位：英国 Pirbright研究所

地址：英国萨里郡沃金市（自伦敦希思罗机场和盖特威克机场可达，交通便捷）

Week 1 will be hosted by The Pirbright Institute (Woking, Surrey, UK, within easy travelling distance of London Heathrow and Gatwick airports).

第二阶段：

培训单位：诺丁汉大学

地址：莱斯特郡萨坦·伯宁顿校区（自东米德兰兹机场可达）

Week 2 will be hosted by the University of Nottingham (Sutton Bonington, Leicestershire, UK) located in the Midlands, close to East Midlands airport.

课程标准与费用

本培训课程属于英国资格与考试管理办公室（Office of Qualifications and Examinations Regulation, Ofqual）规定的高级教育7级（硕士和研究生学历）课程。该课程同时也是诺丁汉大学和哈珀·亚当斯大学农业食品“家禽健康与生产”研究生学位学习的模块一部分学习内容。学员可以根据需要自由选择以下课程（费用包含税、午餐和茶点）：

The Poultry Health Course is a Higher Education Level 7 course which, if desired, can form Module 1 of the AgriFood Post Graduate Certificate in Poultry Health and Production (accredited by the University of Nottingham and Harper Adams University). Delegates may opt for one of the following choices (all fees include VAT, refreshments and lunch).

•全部课程——继续教育学习：1700英镑，学员参加家禽健康培训班全部课程学习，但不参加考试，学习结束后由诺丁汉大学授予学习证书。

■ Full course – Continued Professional Development (fee ■ 1,700): Attend the full Poultry Health Course (but without examination) to receive a certificate of attendance from The University of Nottingham.

•全部课程及考试——研究生认证学分：1800英镑，学员参加家禽健康培训班全部课程学习，学习结束后通过在线考试（2018年6月，于诺丁汉大学或其他海外认可机构），可获得“家禽健康与生产”研究生学位的20个学分。

• Full course and examination – Accreditation (fee £1,800): Attend the full Poultry Health Course, followed by passing an online examination (to be held in June 2018, at only The University of Nottingham OR a recognised centre overseas) to achieve 20 credit points towards the Post Graduate Certificate in Poultry Health and Production.

注：获得“家禽健康与生产”研究生毕业证书共需60学分，包括家禽健康课程模块（20学分）、禽业生产在线课程模块（20学分）、家禽营养在线课程模块（10学分），以及禽业商务管理在线课程模块（10学分）。

The full ‘PGCert in Poultry Health and Production’ (60 credits) is composed of: The Poultry Health Course module (20 credits) + Poultry Production online module (20 credits) + Poultry Nutrition online module (10 credits) + Poultry Business Management online module (10 credits).

注意事项

语言要求：学员需要具备一定的英语交流能力。标准是：雅思考试总分7.0（听力、阅读不低于7.0，口语不低于6.5，写作不低于6.0），或其他同等水平英语资质。

海外学员签证：海外学员需申请商务访问签证。如有需要，可提供咨询建议。学员需在开课前将护照及签证复印件发送至课程管理人员，并携带原件，在第一节课时进行身份确认。

照片类身份证件：遵照政府法规，访问Pirbright研究所人员需提供带照片的身份证明，研究所可接受以下证明件：护照、带照片的驾驶证、带照片的工作证、大学/学院工作证或学生证、英国SIA许可证、Lantra技能证。

其他事项请咨询诺丁汉大学课程管理人员Samantha Darby女士，邮箱Samantha.Darby@nottingham.ac.uk。

English Language Proficiency: It is a requirement that all Course delegates can prove their ability to communicate in English. The required standard is an overall mark of 7.0 in the IELTS qualification (with no lower than 7.0 for listening and reading, no lower than 6.5 for speaking and no lower than 6.0 for writing) or the equivalent in an alternative qualification.

Visas for overseas delegates: You will need a business visa. We can advise on this if required. Copies of both your passport and visa must be sent in advance to the Course Administrator, and brought with you on the first day of the Course for verification.

Photographic identification: In line with Government legislation, all visitors to The Pirbright Institute will be required to produce photographic identification on arrival. The following forms of identification are acceptable: Passport; Photo driver's licence; Workplace Photo ID; University/College ID cards; SIA Licence; Lantra Skills Identity card.

Please contact the Course Administrator, Ms. Samantha Darby at: The University of Nottingham Samantha.Darby@nottingham.ac.uk

招聘信息

Recruitment
information

英国Pirbright研究所 博士后研究员 招聘简章

Postdoctoral Research Scientist: Pirbright, UK

岗位及目标

Organisation position and purpose

入选人员将加入Pirbright研究所禽致肿瘤病毒研究组开展工作，受该研究组组长领导。本岗位拟招聘一位具有基因编辑经验的博士后研究员，主要开展ALV病毒致肿瘤分子机制研究，与中国多个研究院校开展合作，完成BBSRC牛顿基金项目两年半的项目研究。应聘人员应能使用分子生物学前沿技术，探索myc在ALV转化细胞系中的功能。

The successful candidate will join the Avian Oncogenic viruses group at Pirbright and report to the Head of the group. The purpose of this position is to recruit a Post-doctoral Research Scientist with experience in gene editing to carry out investigations into the molecular mechanism of ALV induced oncogenesis to meet the objectives of the two and a half year's BBSRC-Newton Fund project in collaboration with a number of Chinese Institutes/Universities. The post holder will use state-of-the-art molecular biological tools to explore the role of myc in ALV-transformed cell lines derived from haematopoietic tumours.

工薪范围Pay Band and Salary Range

Band D; from £ 32,361 with higher numeration considered depending on experience and qualifications D级，£ 32,361以上

合同类型Contract type

Fixed term until December 2020 固定合同，至2020年12月终止

工作地点Main Work Location

The Pirbright Institute, Pirbright, Surrey, GU24 0NF 英国萨里郡沃金市Pirbright研究所，邮编GU24 0NF

博士、博士后研究人员 招聘简章

Recruitment brief of PhD and postdoctoral researcher

招聘对象

5名预防兽医学与兽医生物技术博士后研究人员，研究方向为禽病学；基因工程疫苗与病原分子生物学研究；动物疫苗免疫佐剂与保护剂研究；动物疫病与人兽共患病防控技术等。

5 postdoctoral researchers with one of the following research areas: avian diseases, genetic engineering vaccine and molecular biology, adjuvant and protective reagent for animal vaccine, animal epidemic disease and prevention and control technology of zoonosis.

2名发酵工程与微生物学博士后研究人员，研究方向为生物制药与微生物饲料添加剂。

2 fermentation engineering and microbiology postdoctoral researchers for research on Biopharmaceuticals and microbial feed additives.

1名动物原料药学与制剂学博士后研究人员，研究方向为动物原料药的生物发酵或动物药物制剂工艺。

1 postdoctoral researcher for research on pharmaceutical pharmacy and Active Pharmaceutical Ingredient.

1名功能饲料添加剂与饲料配方师博士后研究人员，研究方向为动物饲料添加剂与饲料配方工艺。

1 postdoctoral researcher for research and development on animal feed additive and feed formula.

应聘条件

1、预防兽医学与兽医生物技术博士后研究人员：

所学专业为预防兽医学、基础兽医学、临床兽医学、分子生物学等相关专业，具有动物医学与预防兽医学知识背景，特别是在基因工程疫苗的基因的克隆、鉴定，表达载体的构建与高效表达、免疫佐剂与保护剂等方面有相关的经验和技術者优先，发表SCI论文1篇以上；获得博士学位，年龄在40岁以下；

2、发酵工程与微生物学博士后研究人员：

所学专业为发酵工程、生物化学与分子生物学、微生物学、预防兽医学、基础兽医学、分子生物学等相关专业，具有生物工程知识背景，特别是在发酵工程、生物制药、基因工程疫苗的基因的克隆、鉴定，表达载体的构建与高效表达等方面有相关的经验和技術者优先，发表SCI论文1篇以上；获得博士学位，年龄在40岁以下；

3、动物原料药学与制剂学博士后研究人员：

所学专业为发酵工程、生物化学与分子生物学、微生物学、药理学、预防兽医学、基础兽医学、分子生物学等相关专业，具有生物制药知识背景，特别是在原料药生物工程高效表达与药物制剂工艺等方面有相关的经验和技術者优先，发表SCI论文1篇以上；获得博士学位，年龄在40岁以下；

4、功能饲料添加剂与饲料配方师博士后研究人员

所学专业为动物营养、发酵工程、生物化学与分子生物学、微生物学、药理学、中医学、基础兽医学、分子生物学等相关专业，具有动物营养、饲料添加剂与饲料配方师知识背景，特别是在功能饲料添加剂原料制备与饲料配方设计等方面有相关的经验和技術者优先，发表SCI论文1篇以上；获得博士学位，年龄在40岁以下；

以上4个相关专业研究人员统一的要求：

- (1) 具有良好英文书面及口头表达能力；
- (2) 爱岗敬业、勇于创新、有团队合作精神；

申报材料

- 1、申请书、简历、身份证复印件；
- 2、博士毕业证书及学位证书，或博士论文答辩委员会通过并建议授予其博士学位的决议书（须加盖毕业学校学位办公室章），或应届毕业生证明；
- 3、政治思想鉴定材料；
- 4、博士后申请表一式三份（表格到中国博士后网站下载）；
- 5、已发表的论文、成果证书复印件及博士论文摘要复印件；
- 6、两封推荐信（用《博士后申请表》中的推荐信），其中必须含本人博士导师的推荐信；
- 7、博士后进站审核表（从网上下载） 留学回国博士须提供《中华人民共和国驻外使领馆教育处（组）推荐意见》或《留学回国人员证明》。

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