

Developing the next generation of Chinese in-vivo pharmacologists: A partnership between CNPHARS, IUPHAR and pharmacology educators.

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Background & Aims: China seeks to become a world leader in the development of new medicines. Critical to this is the supply of sufficient in-vivo pharmacologists, educated and trained in best practice in in-vivo pharmacology, animal welfare and ethics. However, like many nations, China suffers from a shortage of individuals with the knowledge and skills to undertake studies using research animals. IUPHAR, through its IOSP initiative, has been running short courses in in-vivo pharmacology, predominately in Africa, since 2007¹. The aim therefore, was for the Chinese Pharmacological Society, two Chinese Institutions and Dr Dave Lewis (Chair, IUPHAR IOSP) to work in partnership to design and deliver, at these Institutions, short, advanced courses in in-vivo pharmacology. These courses would be targeted both at early career researchers and pharmacology educators. Their theme; Safety Pharmacology, with a focus on sharing good practice in animal welfare, ethics and the 3Rs, but also pharmacology education.

Summary of work and outcomes: Three day courses were delivered at the Capital Medical University (Beijing) and Yantai University in July 2016. They included interactive sessions on safety pharmacology, animal welfare and husbandry, the 3Rs, legislation, anaesthesia and surgery, experimental design, ARRIVE guidelines, discussion sessions on ethics and animal ethics committees, and practical sessions on safety pharmacology and surgical procedures. Feedback from delegates was excellent; all agreed or strongly agreed that the courses were useful and informative (Likert score 3.65 / 4) and that they learnt a lot (3.55 / 4). Participants intend to change their research practices: "Alter way treat animals"; "Apply the 3Rs"; "Change my experimental design and practices" and share their learning: "Inform colleagues of importance of animal welfare"; "Teach students to respect animal".

Discussion: These courses were extremely successful. CNPHARS intend to deliver similar courses, in Chinese, in other provinces across the country. They also will hold a pharmacology education workshop to share the methods of delivery with other Chinese pharmacology educators. These courses were more advanced in content than those previous delivered through the IUPHAR IOSP initiative. The resources developed will be utilised by IUPHAR to offer similar advanced courses, in partnership with national or regional pharmacological societies elsewhere in the world.

Conclusion: This programme demonstrates the benefits for pharmacology education and training when educators, Institutions, national and international pharmacological societies work in partnership together to design and deliver courses.

References: 1. Lewis DI (2013). *Pharmacology International* **80**: 6-7