

Taconic VP: Our animal models fuel global R&D

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Today's modern researchers often depend on sophisticated tools for their scientific endeavors. One such tool that is frequently used by scientists for the better understanding of diseases (without the added risk of harming an actual human being) is animal models. Taconic has been in the business of providing animal models for the past 60 years and has made a name for itself in the industry. Taconic provides innovative animal models and scientific services that facilitate in vivo studies and advance drug discovery.

Mr Scott Schulz, vice president, operations, research models and solutions, Taconic, spoke to BioSpectrum Asia during India's premier life science event, Bangalore India Bio 2013. Mr Schulz was in India to announce Taconic's partnership with Hyderabad-based Vivo Bio Tech and to explore the India market. Following are the excerpts:

Please tell us about your company

Taconic is a leading provider of life sciences solutions to researchers worldwide, offering innovative animal models and scientific services that facilitate in vivo studies and advance drug discovery. Our solutions enable investigators to obtain reliable data early in the development cycle thus helping them to reduce costs, accelerate time-to-market, and create strong competitive advantage.

At our seven breeding facilities and three service labs, located in the US and Europe, more than 750 Taconic scientists and specialists demonstrate their commitment to technological innovation every day. In Asia, Taconic works with a network of partners, who supply Taconic products and service. The countries we support through partnership arrangements include, India, South Korea, Japan, Singapore and Malaysia. Taconic is a privately-owned family-run business, headquartered in

Hudson, New York, US. Earlier this year, we celebrated our 60th year of doing business in the life sciences arena.

Companies are now shying away to conduct tests on animals due to a number of issues, including the fact that drugs may behave differently in animals and in humans. What are your comments on this?

As an solution to the above mentioned problem, the mouse model is often employed to study complex biological process related to man. However, not all experimental results from mice readily translate to humans. Technology now exists to humanize mice by replacing a murine gene with its human ortholog in vivo.

Humanized mouse models enable scientists to develop human disease models and provide more predictive ways to test therapeutics for a variety of diseases. Through Taconic's Custom Model Generation Services, the experience gained in producing humanized mouse models is unparalleled. We have completed close to 200 humanization projects until date.

What are the various solutions that you provide to your customers?

Taconic's leading industry portfolio includes various solutions such as custom model generation services that provide easy access to precisely defined models to suit specific research project, using advanced technologies such as pronuclear microinjection, targeted gene mutation and targeted gene replacement; extensive animal model repositories, including the Taconic Transgenic Model portfolio of in-licensed transgenics; a Knockout Repository of more than 4,000 mouse lines; and an Emerging Models portfolio of investigator-sponsored models.

Our other solutions include tADMET models that yield far greater predictability of ADMET in man and improve the safety assessment of drug candidates by knocking out key murine genes or replacing them with their human counterparts; light-producing transgenic models that use novel bioluminescent technology to greatly enhance the study of inflammation, oncology, metabolic disease, and drug metabolism/toxicology; and custom breeding solutions that fit specific needs and are designed to help achieve research objectives by providing the right models quickly, cost-effectively and in the volume your research demands.

Furthermore, we provide surgical services, including cannulations and implants, customized procedures, and the creation of surgical models of disease, all performed by highly trained in-house surgical technicians; testing services that use the most advanced technology to determine the precise genetic characterization of your model and monitor animal health status; and health monitoring services through our proprietary Taconic International Health Monitoring System, which meets or exceeds the animal health guidelines of virtually all research institutions

What brings you to India and how do you plan to enter the Indian market?

I am in India this month to attend Bangalore India Bio 2013, LASA in Hyderabad and to announce an agreement with Vivo BioTech, which is located in Andhar Pradesh, to breed and distribute select Taconic rat and mouse models in India. Through this arrangement, the two companies will greatly improve the availability of high quality animals for biomedical research in India.

All local breeding will be done at Vivo Bio Tech's 125,000-square-foot pre-clinical research facility in Andhra Pradesh, India. The facility is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) and is registered with the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) for breeding and commercialization of Murine Pathogen Free (MPF) animals.

What sets Taconic apart from its competitors across the world and in India?

Taconic's broad portfolio of relevant animal models and services combined with unrivaled scientific expertise and a global footprint positions Taconic to deliver the highest quality solutions quickly and reliably. Our portfolio is the broadest in the industry.

In India, we find that one-of-the-big impediments to drug discovery and research is the lack of locally available high quality laboratory rodents. There is an urgent need for readily available high quality animals without experiencing long wait times and incurring the additional costs for importation. Taconic plans to bridge the gap by breeding and distributing select mouse and rat models that are in demand in India.

Apart from India in the Asia Pacific region, are you focusing on China as well, since it is a leading clinical service provider?

We see an increasing trend for pharma to move chemistry, cell biology, toxicology, DMPK and GLP-related studies to Asia, including both India and China. Big pharma are establishing serious R&D centers and partnerships in Shanghai and Beijing to perform thousands of regulatory and non-regulatory studies every year.

As big pharma moves more work to China, the expectation from the breeding industry will increase. It has been recognized that big pharma does not have reliable partners in China. Taconic sees that as an opportunity to support pharma while

increasing our global presence.