NOBLE LIFE SCIENCES

The smart solution for preclinical drug development

Preclinical Drug Development ♦ Vivarium Services ♦ Biomarkers ♦ Protein Production

"Spring is the time of plans and projects." - Leo Tolstoy

Give us a call to discuss your plans and projects

In this Issue we highlight …

- Cotton Rat Models of RSV and Influenza Infection
- TEDCO Grant for Patient-Derived Metastasis Mouse (PDMX mouse) Models

Optimized RSV Cotton Rat Model Launched

When infected with RSV, the cotton rat displays many features of human pathology making it the model of choice for preclinical development of RSV vaccines and therapeutic agents. In our recently optimized model, we infected cotton rats intranasally with RSV and followed the time course of the infection by determining viral titers in lung homogenates or broncho-alveolar lavage fluids (BALF). The results showed that the viral titers are proportional to the dose of virus infection and increased from day 1 through days 4–5 post challenge and then declined through day 7. We further demonstrated that this model can also be used to test the efficacy of anti-viral agents. Viral titers can be determined using immunoplaque assays and qPCR. Histology can be evaluated with H&E stained lung tissue sections.

Learn More

Coming Soon! Cotton Rat Model of Influenza Infection

Cotton rats are also a helpful tool to determine the efficacy of antiviral agents and vaccines against influenza because non-adapted human influenza isolates replicate in the upper and lower respiratory tract following intranasal inoculation and infection resembles that seen in humans. In addition, cotton rats possess an intact immune system that includes an intact Mx gene. This is important for vaccine evaluation because intact immunity is required for the model to be successful. Our scientists, in partnership with IBT BioServices, are now optimizing the cotton rat as a model of influenza infection.

For more information contact us: info@noblelifesci.com

In Development! PDMX Mouse Models

Virtually all cancer drug development testing is based on activity in primary tumors whereas metastasis, not the primary tumor, is cause of death in over 90% of cancer cases. For this reason, our goal is to create patient-derived metastasis mouse (PDMX) models thereby establishing mouse avatars for preclinical testing of human metastatic tumors. Noble Life Sciences recently received a Maryland TEDCO Award for Development of *ex vivo* and *in vivo* assays for anti-Metastatic drug development using patented technology, called Cell Adhesion Matrix-Based (CAM) Enrichment of Invasive CTCs, licensed by Noble Life Sciences from Vitatex, Inc. to isolate metastasis-initiating circulating tumor cells (CTCs).

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About Noble Life Sciences

Noble Life Sciences is a contract research organization (CRO) that provides integrated *in vitro* and *in vivo* preclinical services designed to accelerate drug development. With deep expertise in drug development, the company offers access to their top scientists who work collaboratively with researchers to expedite preclinical and clinical therapeutic development. Our years of extensive experience together with a focus in oncology, inflammation, autoimmune, and infectious diseases allow us to bring strong scientific insight to your discovery programs. For more information:

Visit: www.noblelifesci.com
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Meet Noble's Vice President of Laboratory Animal Resources

Stephen J. Garvey, LATg
Steve has three decades of laboratory animal care and research experience. He is AALAS certified and skilled in the management of numerous animal models. He earned several official procedural certifications for cardiovascular and carotid artery surgeries. Prior to joining Noble, Steve was responsible for animal resources at Avalon Pharmaceuticals. He has designed several award winning small animal facilities and managed facilities at GlaxoSmithKline, Zynaxis, Human Genome Sciences, the Philadelphia College of Osteopathic Medicine and Graduate Hospital of Philadelphia.

"Noble's knowledge of types of animals and technical procedures needed for our study was instrumental in moving our research forward. They are team players. A great resource. "

Jason Zand, MD, MBA
President & CEO
Surgisense Corporation

Human Cancer Xenograft Models

We offer transgenic, induced, or surgically modified animal models.

Tumor growth delay, tumor growth inhibition, $\log_{10}$ cell kill, survival, combination or adjuvant design approaches may be used to assess your compound for:

- Drug potency (IC50)
- Apoptosis
- Cell Cycle
- Biomarker Discovery/Screening
- Pathway Interrogation
- Therapeutic Combinations
- Tumor Antigen Testing

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