Surgical Models and Services

SURGICAL MODELS AND SERVICES EMPOWER SCIENTISTS IN THEIR QUEST TO IMPROVE THE OUTCOMES OF THEIR RESEARCH
Surgical Models and Services

Rodent surgical procedures can be time-consuming and of variable effectiveness. When your research requires surgically modified rodents, turn to Taconic Biosciences’ expert surgeons for the accuracy and flexibility your research needs. Taconic offers a wide range of surgical models that are validated by post-operative screening using twice-daily observations.

Taconic surgeons operate in AAALAC accredited facilities and our intense monitoring standards assure full recovery before animals are shipped to you in Taconic Transit Cages.

When your animals arrive, you can have confidence that they are ready for your study.

Outsource your complex surgical procedures to Taconic so you can focus on the business of research.

TELEMETRY IMPLANTS
- Permits continuous monitoring of neurological data: EEG, ECG, EMG (Biopotential), temperature and activity in fully awake and freely moving laboratory animals.
- Subcutaneous or intraperitoneal placement of transmitters.
- Taconic works closely with Data Sciences International and uses DSI PhysioTel® Transmitters.
- Versatility: Telemetry devices can be installed in both rats and mice.

CUSTOM REQUEST
Looking for a customized model or a combination procedure? The surgical team at Taconic is ready to work with you to develop your model.

Find out how you can gain greater flexibility and convenience through Taconic’s Surgical Models and Services.

For details contact: info@taconic.com

SURGICAL MODELS OF DISEASE
Surgically altered rodent models that represent human diseases are important instruments for examining essential processes in many disease states. Taconic has the following surgical models of disease:
- RENAL DISEASE MODELS.
  - Nephrectomy.
  - Subtotal Nephrectomy.
- NEUROLOGICAL MODEL.
  - 6-Hydroxydopamine Lesion (Parkinson’s Disease).
- ENDOCRINE MODELS.
  - Adrenalectomy.
  - Hypophysectomy.
  - Thyro-Parathyroidectomy.
- REPRODUCTIVE MODELS.
  - Castration.
  - Ovariectomy.
  - Vasectomy.

CATHETERIZATIONS/CANNULATIONS
Repeated dosing and/or sampling is easier with Taconic’s large selection of catheterizations and cannulations. Our services include:
- Vascular.
- Brain.
  - Lateral ventricle.
  - Third ventricle.
  - Microdialysis.
- Intrathecal.
- Intestinal.
- Bile Duct.
SUPPORTING SURGICAL SERVICES

MURINE BIOSPECIMENS
General tissue and biospecimen preparation from any Taconic animal model, or your model being bred at a Taconic facility.

- Biospecimens are important components to any research project for study and comparative evaluations.
- Superior quality organs, fluids, tissue, and embryo products can be harvested from both rats and mice.
- Biospecimens are harvested fresh, flash frozen or fixed for histology.

For a detailed list of organs visit Taconic.com/murine-biospecimen-collection

ANIMAL IDENTIFICATION
• The identification of an animal is the only link to essential data, such as sex, genotype, and study parameters and results.
• Animal identification systems also assist with breeding record keeping.
• A variety of permanent, dependable and humane solutions are available for any research requirement including:
  - Ear Punch
  - Metal Ear Tag
  - Tattoo
  - Light Activated Chip
  - 2D Barcode Ear Tag
  - RFID

Considerations when choosing an identification method:
• Preference for visual or electronic read
• Number of unique identification numbers required
• Length of study
• Housing requirements and recombining
• Age and animal characteristics
• Equipment and training needs

For a detailed list detailing attributes and benefits of Identification Systems visit Taconic.com/rodent-id

ADVANTAGES OF TACONIC’S SURGICAL MODELS AND SERVICES

Reliability. All catheters, cannulas and implant devices are supplied by high quality vendors, assuring you that these critical components will be dependable.

Expertise. Taconic’s expert surgeons perform all techniques and are directly overseen by an ACLAM board-certified veterinarian. The surgery team is active within the AALAS and the Academy of Surgical Research communities.

Scope. Our wide range of procedures includes many types of catheterizations, cannulations, implants, development of surgical models of disease, and custom surgeries.

Understanding. Taconic will work with you based on your specialized needs. We can perform surgeries on our own models or your models bred at Taconic facilities.

Lab Animal Welfare. The entire surgical team works closely with the IACUC to assure first and foremost, the health and well-being of any animal used in a procedure at Taconic.

Targets. Taconic surgeons maintain detailed performance metrics as part of our system for continuously monitoring the overall success of the surgeries performed.

Success. Attention to all aspects of surgery from training, facilities, oversight and monitoring, assures that Taconic will deliver what you need when you need it.

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Take Your Research Further

GEMS DESIGN
Taconic Biosciences GEMs Design empowers our clients to develop research models specifically suited to the unique needs of their discovery and development studies or therapeutic programs.

- Gene Inactivation
- Gene Mutation or Replacement
- CRISPR Gene Editing
- Transgene Expression
- miRNA expression
- Cohort Production Packages

PRECISION RESEARCH MODELS
Research organizations demand precision tools that better reflect human physiology. Taconic Biosciences leads the field delivering innovative solutions to meet these continually evolving needs. Our core competencies include the delivery of complex strategies that both integrate human genetic sequences and engraft human cells and tissues into custom mouse and rat models.

- Human Gene Replacement
- Human Cell and Tissue Engraftment

GEMS MANAGEMENT
Taconic’s fully integrated GEMs Management brings innovative models from design to study-ready cohorts with unprecedented speed and transparency.

- Embryology
- Rapid Colony Expansion
- Contract Breeding
- Surgical Services
- Tissue Collection
- Genotyping and Molecular Analysis
- Microbiome and Germ-Free Research Models and Services

CHOOSE TACONIC
For more than 60 years, Taconic has anticipated the needs of the scientific community to deliver models and services that meet the diverse needs of biomedical and biopharmaceutical researchers.

Today that forward thinking and commitment to working collaboratively has resulted in a client-centric environment infused with a knowledge bank that allows you to select the optimum model for your study based on informed insight into the generation of genetically engineered mouse and rat models.

YOUR COLLABORATIVE PARTNER
As a full-service biosciences company, Taconic can help you acquire, test, develop, breed, cryopreserve, prepare, and distribute highly relevant research lines worldwide. Whether you require custom genetically engineered, cell or tissue engrafted models or traditional models, Taconic’s scientists will partner with you to rapidly and efficiently deliver the highest quality models.

TALK TO A SCIENTIST
Our scientific teams are happy to meet and talk with you about the most efficient way to achieve your study goals. Working in partnership with clients the world over, our scientific teams offer expert advice that can help you speed up your research and reduce your overall costs.

TALK TO A REPRESENTATIVE
For general information, you can talk to a member of our customer service team. Our customer service team is here to help you make the right decisions and get the models you need fast. Contact us at info@taconic.com

VISIT TACONIC.COM
For more information on the entire Taconic portfolio of products and services designed to help further your research, visit Taconic.com

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