colonies, particularly in those at academic centers such as Memorial Sloan Kettering Cancer Center, where various laboratories use immunocompromised mice as xenograft models. The agent is endemic in most non-commercial athymic mouse colonies and can have a significant impact on the outcome of xenograft studies conducted in affected animals. Current investigations are exploring methods to eradicate, contain, and treat the infection.

Developing eradication methods for *Myobia musculi* and *Myocoptes musculinus* infestations: Mite infestations are a significant problem in contemporary mouse colonies. Eradication is extremely difficult even when attempting to eliminate mites from small numbers of animals. A feed-based acaricide delivery system was developed and efficacy evaluated.

Postoperative pain control is important in rodent models. While potent analgesics are available, they may not be used effectively and at the appropriate doses and frequencies. Analgesic formulations are currently being evaluated in relevant model systems.

Collaborative research is undertaken directly with the various Memorial Sloan Kettering and Weill Cornell Medical College laboratories that develop and utilize animal models.

Examples of current collaborations include the following: describing and characterizing a new model of dyskeratosis congenita based on the disruption of mouse telomerase and Pot1b proteins; unveiling the function of various genes in the NMR complex (Nbs1, Mre11, and Rad 50) responsible for double-stranded DNA repair; characterizing the biological significance and role of the newly identified antiapoptotic gene, septin 4, in the development of hepatic cancer; testing new anti-prostate cancer drugs in newly developed mouse models containing the TMPRSS2-ERG fusion protein and an activated AKT pathway; evaluating the global conditional disruption of the Abi1/Hssh3bp1 gene on prostatic and other neoplasms in a genetically engineered mouse model; and studying the impact of curcumin on mammary and intestinal neoplasia in ENU-induced mouse cancer models.

Publications

Selected publications from the Tri-Institutional Training Program faculty and fellows.

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