Recommended Care and Housing for the CIEA NOG mouse®

Production at Taconic: The CIEA NOG mouse® is severely immunodeficient. Taconic and CIEA recommend the highest level of care possible for this mouse model. Taconic currently produces these mice both in flexible-film isolators at the Defined Flora health standard using strict gnotobiotic techniques as well as in barriers at the Restricted Flora™ health standard. A current health report may be viewed online.

At Taconic, all items that enter gnotobiotic isolators are steam sterilized, including the feed and drinking water. Mice are housed in polycarbonate cages with wire bar lids. In barrier settings, all caging components and feed are steam sterilized prior to entering the barrier. Groundwater is hyperchlorinated to 2-10 ppm and passed through a series of 5 filters starting with a 5 micron filter, a 2.5 micron filter, a 0.2 micron filter and two 0.1 micron filters prior to entering into the barrier and filling water bottles. The objective is to obtain sustained 2-8 ppm chlorine at the point of consumption. Barrier cage handling practices are designed to maintain individual cage level biosecurity practices.

Recommendations for maintenance by users:
1. All materials for housing or experimentation ideally should be sterilized by autoclave; alternatively they may be chemically disinfected or irradiated, including food and water.
2. Microbiological monitoring should be performed monthly or bimonthly using sentinels as well as the CIEA NOG mouse®, if possible. Testing should include opportunistic agents such as *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Pneumocystis murina*. Taconic offers animal health testing services, and the Taconic International Health Monitoring System™ (IHMS™) can supply the confidence needed to work with immunodeficient models.
3. The CIEA NOG mouse® should be housed in the cleanest portion of the animal facility. If possible, maintain the CIEA NOG mouse® model in its own room or in an immunodeficient mouse room.
4. Personnel movement policies are important to reduce the chance of contamination. The most desirable arrangement is to have dedicated personnel for the CIEA NOG mouse® room. If separate technicians are not available to care for the CIEA NOG mouse® only, then personnel should enter the room housing the CIEA NOG mouse® prior to going into areas which have a lower health status. They should not return to the CIEA NOG mouse® room during the day unless proper personnel decontamination procedures have taken place.
5. Illness or other adverse effects may be linked to infection by opportunistic agents or excessive stress on the mice. Care should be taken to maintain a high health standard and minimize stress on the mice.
6. As with other immunodeficient models, the CIEA NOG mouse® may benefit from housing in microisolator cages. Using proper decontamination procedures between the changing of cages is recommended. One such approach is to use forceps that are disinfected before use with each new cage to pick up the tail of the mouse.
7. Move animals to a class II laminar flow hood for cage changes and research protocols. Cages can also be changed in HEPA filtered animal cage change stations.
8. Irradiation of the CIEA NOG mouse® should be performed in a sterilized apparatus. Mice with scid mutations are radiation sensitive; please contact Taconic for information on maximum tolerated radiation doses and suggested starting points for evaluation of appropriate radiation dose for particular experimental setups.

9. NOG mice are generally non-aggressive and may be group housed, including males.

Requirements for care will vary by facility. Please consult your veterinarian or facility manager for more information on working with immunocompromised animals.