The intubation of small rodents continues to be an obstacle for researchers. A simple, reliable, complete system for intubation of these animals that provides adequate illumination, is easy to handle, simple to learn, and durable would make endotracheal intubation a more accessible technique for researchers. The BioLITE system does just that! The key to endotracheal intubation is visibility which is difficult in the confines of the oral cavity of these animals. External illumination of the oral cavity requires less space and provides adequate intensity, but differentiation of the tiny structures is very difficult. The entire field has a red glow due to the light being transmitted through tissue. The BioLITE system (Patent Pending) uses fiber optics to provide intense white light illumination directly where the user needs it by combining the stylet, guidewire, and light source into one component. A small diameter fiber optic is used to transmit focused white light from an illumination source directly through the lumen of the endotracheal tube.

Images of BioLITE intubation procedure and oral cavity illustrating the improved visibility during intubation with BioLITE system.

A small bore IV catheter is used as an endotracheal tube in these animals. The rigidity of the removable fiber optic also provides enough support to guide the catheter into proper position. Correct placement can be verified using the lung inflation bulbs through visualization of chest distention. The system also includes an intubation stand to aid the user in aligning the animal in an orientation that facilitates intubation and a lightweight portable anesthesia system that is capable of maintaining multiple animals at the same anesthetic level using one vaporizer.

The BioLITE intubation system is the complete system for small animal intubation from anesthesia to ventilation. Kits are available for 10g mice up to 300g rats. The other products available in the BioLITE system can be viewed on our New Products page. New products are always under consideration for addition to the BioLITE product line, so check back regularly.
Citations for several publications that have referenced using the BioLITE system in their research are located below.

