

Monitoring of Salmonella growth in mice*

Egg-associated salmonellosis is caused by a bacterium, *Salmonella enteritidis*, which can be inside perfectly normal-appearing eggs. If such eggs are eaten raw or undercooked, the bacterium can cause illness, an important public health problem in the United States and several European countries.

A person infected with the *Salmonella enteritidis* bacterium usually has fever, abdominal cramps, and diarrhea beginning 12 to 72 hours after consuming a contaminated food or beverage. The illness usually lasts 4 to 7 days, and most persons recover without antibiotic treatment. However, the diarrhea can be severe, and the person may be ill enough to require hospitalization.

The elderly, infants, and those with impaired immune systems may have a more severe illness. In these patients, the infection may spread from the intestines to the blood stream, and then to other body sites and can cause death unless the person is treated promptly with antibiotics.

To monitor *Salmonella enteritidis* growth in living animals the NightOWL LB 981 is a very powerful instrument. Mice were intraperitoneally inoculated with *Salmonella enteritidis* carrying a lux operon of *Xenorhabdus luminescens*. Two pictures of the same animal after 0, 6, 18 and 24 hours were taken, first photographic pictures of the whole body, then the luminescence ones using an exposure time of 60 s.

* Some techniques for generating and/or detecting light in biological subjects are patented and may require licences from third parties. Users are advised to independently determine for themselves whether their activities infringe any valid patent.

