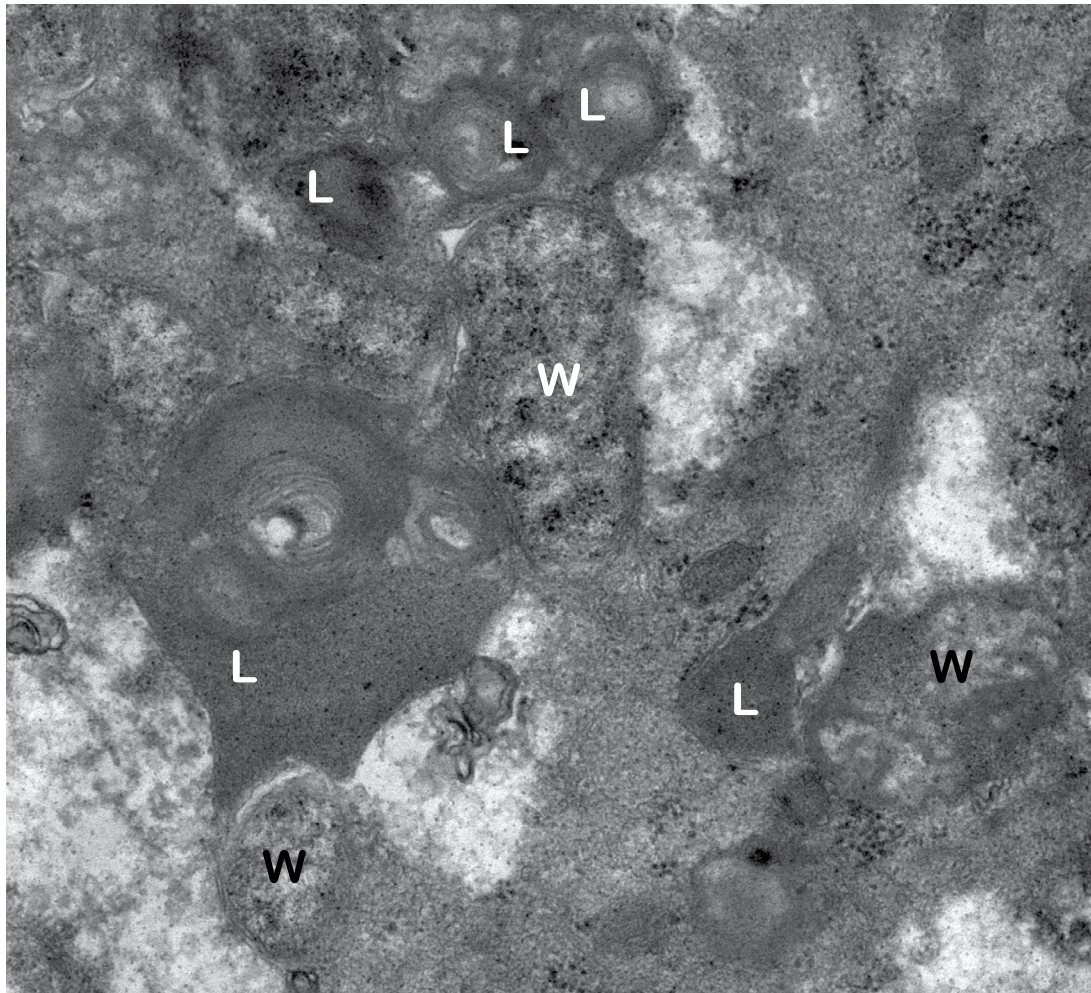




Image 1:001

Filarial Nematode that Induce Lymphatic Filariasis



Parasite attacks its own symbionts. Elimination of *Wolbachia*, mutualistic endobacteria of filarial nematodes of medical and veterinary importance, by induction of autophagy, parasite's intracellular defense mechanism.

The photo shows the direct connection of lysosomes (L) to *Wolbachia*-contained vacuole (W) without autophagosome formation during the induction of autophagy by RNAi specific treatment for Target of Rapamycin (TOR). Elimination of *Wolbachia* sterilizes filarial nematodes inducing apoptosis in developing embryos, decreases parasite's lifespan, and reduces the pathology of the infection (Figure 1). The new mode-of-action was discovered in the Liverpool School of Tropical Medicine (UK) to turn filarial parasites against its essential symbiont.

Information

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