

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: **Recovery time for wild type and *folr-1* mutants.** Elapsed time in min and sec is shown in the bottom left corner of the wild-type video. A yellow circle of 2.5 cm is placed around the spot at which an individual animal encounters the bacteria. The yellow circle switches to magenta when the tail of the animal leaves the circle. The recovery time is the time between the appearance of the yellow circle and when it turns to magenta.

File Name: Supplementary Movie 2

Description: **Recovery time for wild type and *gon-2* mutants.** Elapsed time in min and sec is shown in the bottom left corner of the wild-type video. A yellow circle of 2.5 cm is placed around the spot at which an individual animal encounters the bacteria. The yellow circle switches to magenta when the tail of the animal leaves the circle. The recovery time is the time between the appearance of the yellow circle and when it turns to magenta.

File Name: Supplementary Movie 3

Description: **Recovery time for wild type and *gon-2/hT2* mutants.** Elapsed time in min and sec is shown in the bottom left corner of the wild-type video. A yellow circle of 2.5 cm is placed around the spot at which an individual animal encounters the bacteria. The yellow circle switches to magenta when the tail of the animal leaves the circle. The recovery time is the time between the appearance of the yellow circle and when it turns to magenta.

File Name: Supplementary Movie 4

Description: **Recovery time for wild type and *folr-1* mutants.** Elapsed time in min and sec is shown in the bottom left corner of the wild-type video. A yellow circle of 2.5 cm is placed around the spot at which an individual animal encounters the bacteria. The yellow circle switches to magenta when the tail of the animal leaves the circle. The recovery time is the time between the appearance of the yellow circle and when it turns to magenta.