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Supplementary Materials for

Yeast Dynamically Modify Their Environment to Achieve Better Mating Efficiency

Meng Jin, Beverly Errede,* Marcelo Behar, Will Mather, Sujata Nayak, Jeff Hasty, Henrik G. Dohlman, Timothy C. Elston*

*To whom correspondence should be addressed. E-mail: errede@email.unc.edu (B.E.); telston@med.unc.edu (T.C.E.)

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Other Supplementary Material for this manuscript includes the following:
(available at www.sciencesignaling.org/cgi/content/full/4/186/ra54/DC1)

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Movie S5. *bar1*Δ cells elongating in a 10 nM pheromone concentration.

Movie Descriptions

Movie S1A. Wild-type cells showing self-avoidance in a pheromone gradient. Wild-type *MAT*a cells were grown in a pheromone gradient from 0 to 100 nM (left to right). The time-lapse DIC images (110 x 100 μm) were acquired every 5 min for 840 min.

Movie S1B. Simulations revealing the role of *Bar1* in self-avoidance. Simulations of cells producing Bar1 growing in a chamber (100 x 100 μm) with pheromone gradient from 0 to 100 nM (left to right). Simulation in the movie ran 20 elongation steps until the length of cells increased three times.

Movie S1C. *bar1Δ* cells lack self-avoidance. *MAT***a** *bar1*Δ cells with GFP tagged Bem1 were grown in a pheromone gradient from 10 to 0 nM (left to right). The time-lapse images (60 x 50 μm) were acquired every 5 min for 670 min.

Movie S2. Wild-type cells elongating in a 75 nM pheromone concentration. Wild-type *MAT***a** cells with GFP-tagged Bem1 were grown in a 75 nM uniform pheromone concentration. The time-lapse fluorescence images (150 x 125 μm) were acquired every 5 min for 365 min.

Movie S3. Wild-type cells elongating in a 100 nM pheromone concentration. Wild-type *MAT***a** cells with GFP-tagged Bem1 were grown in a 100 nM uniform pheromone concentration. The time-lapse fluorescence images (150 x 115 μm) were acquired every 5 min for 405 min.

Movie S4. Wild-type cells elongating in a 120 nM pheromone concentration. Wild-type *MAT***a** cells with GFP-tagged Bem1 were grown in a 120 nM uniform pheromone concentration. The time-lapse fluorescence images (110 x 120 μm) were acquired every 5 min for 350 min.

Movie S5. *bar1Δ* cells elongating in a 10 nM pheromone concentration. *MAT***a** *bar1*Δ cells with GFP-tagged Bem1 were grown in a 10 nM uniform pheromone concentration. The time-lapse fluorescence images (125 x 125 μm) were acquired every 5 min for 400 min.