

Fig. S1A

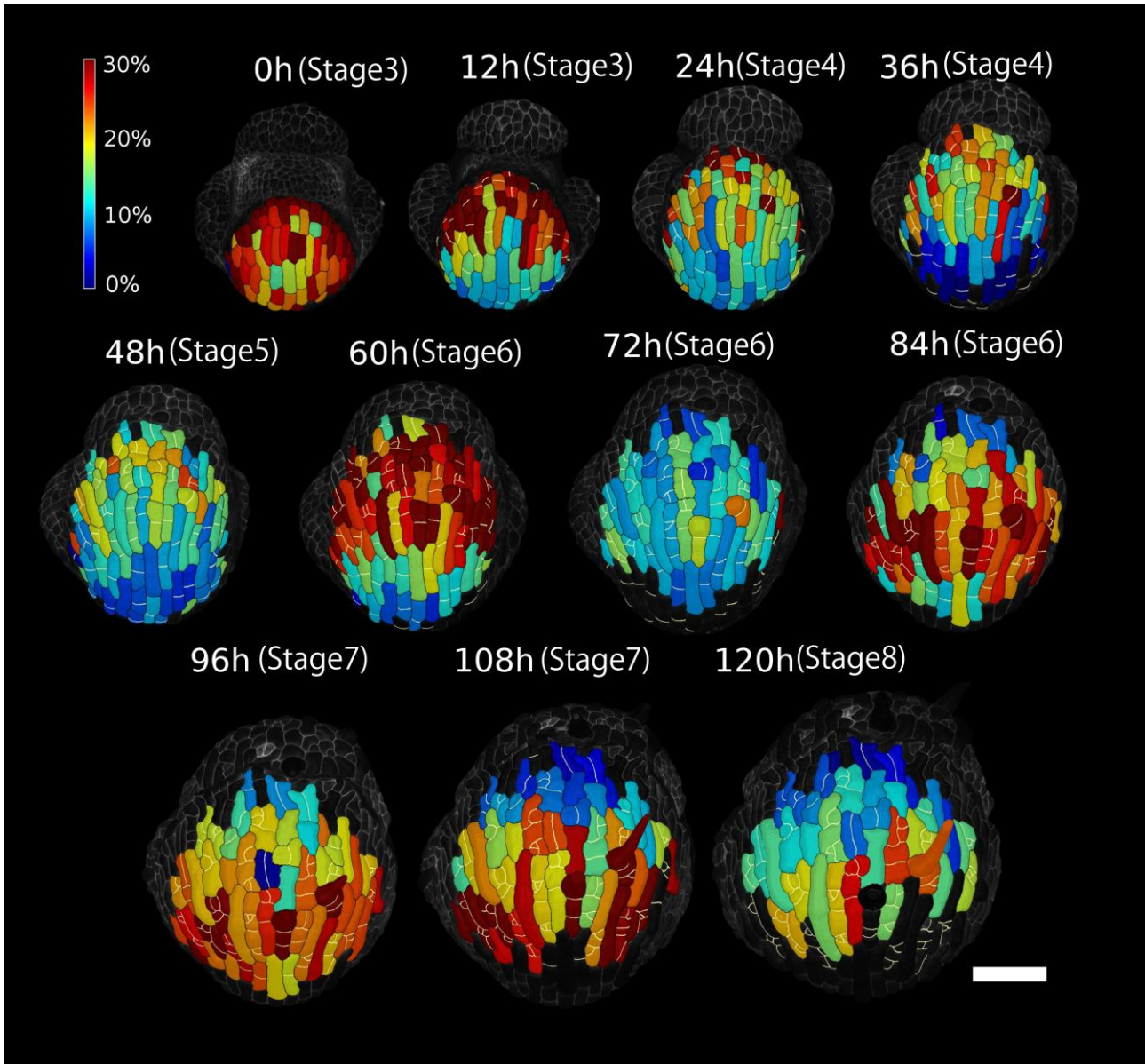


Fig. S1B

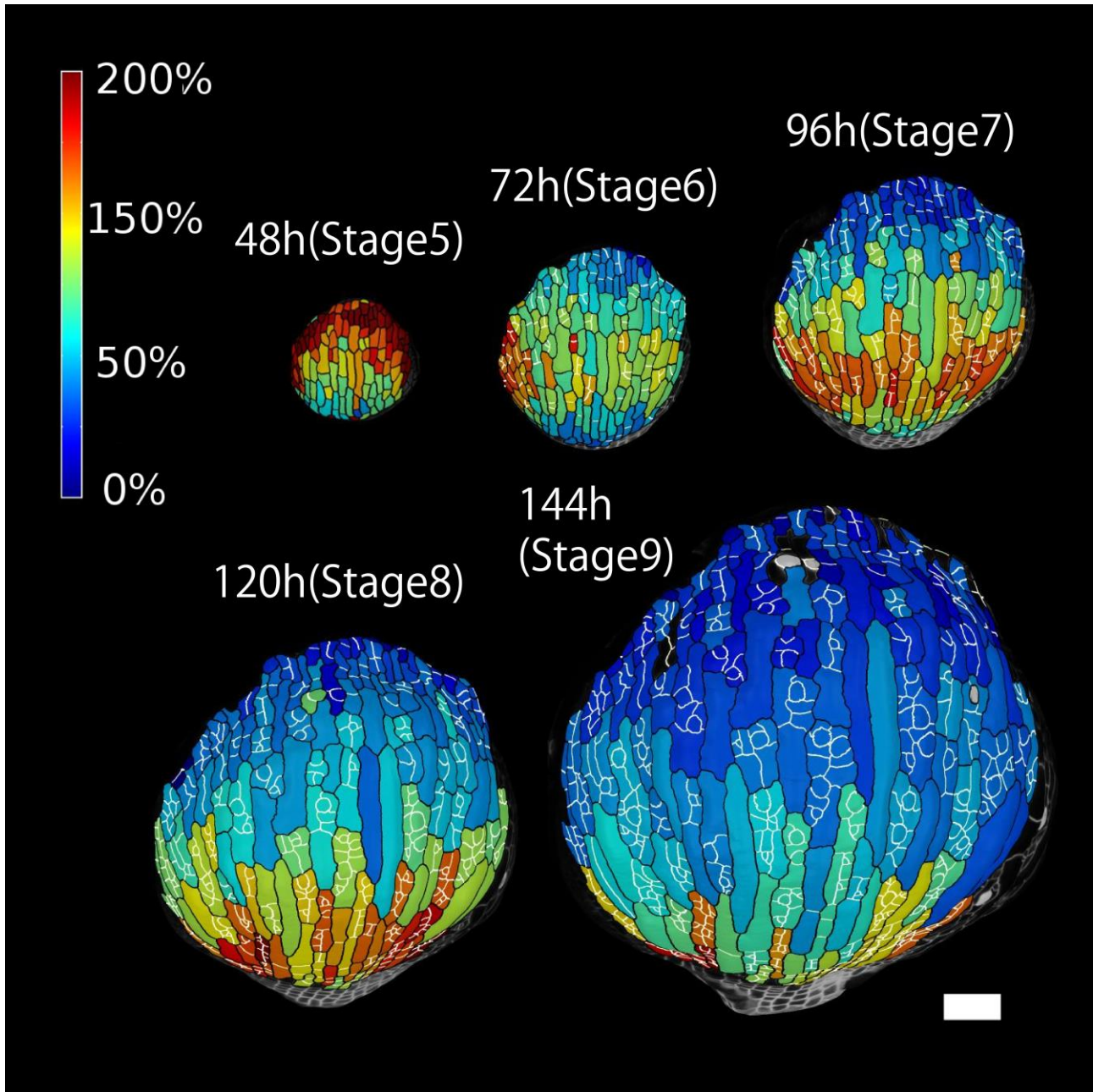


Fig. S1C

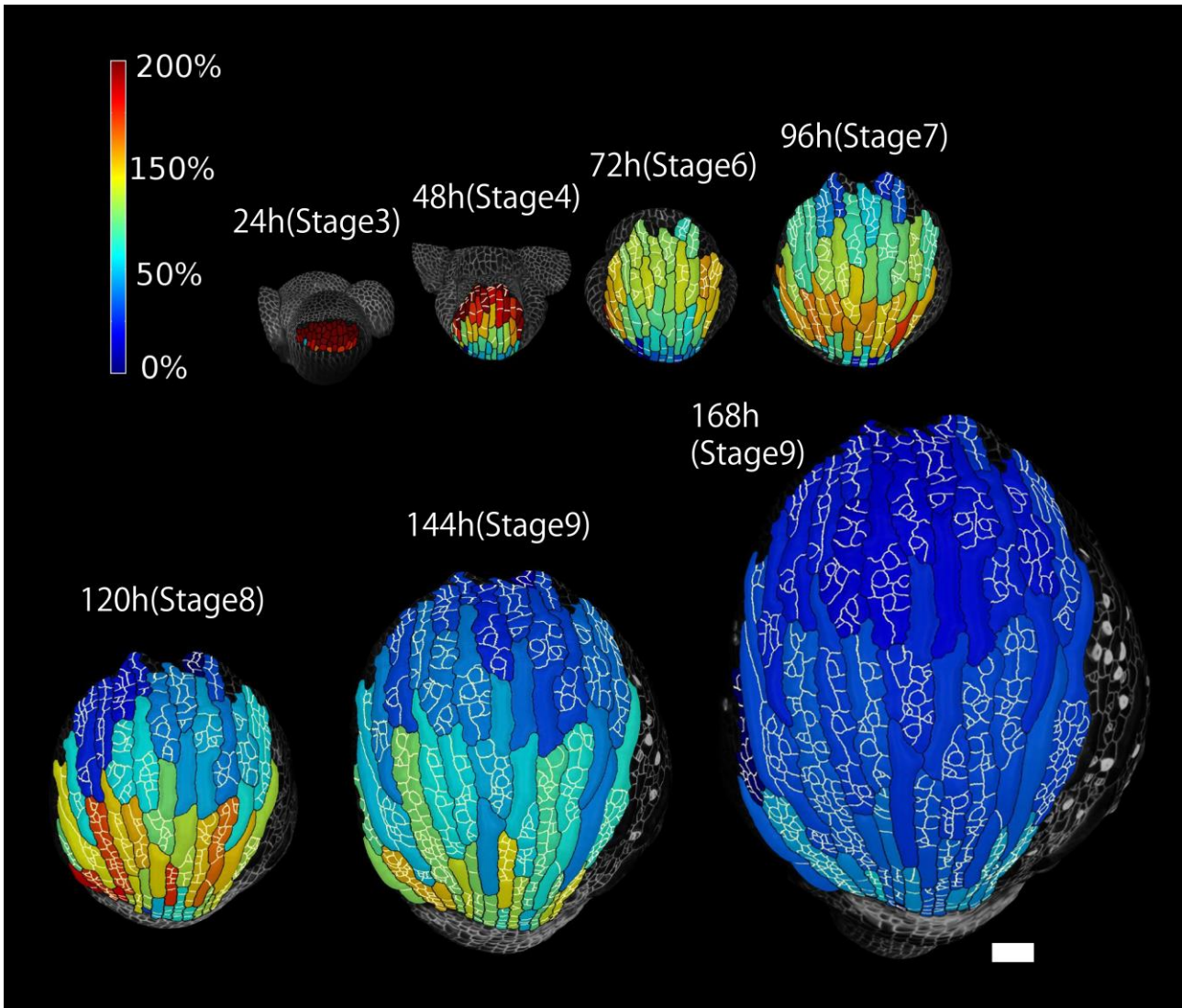


Fig. S1D

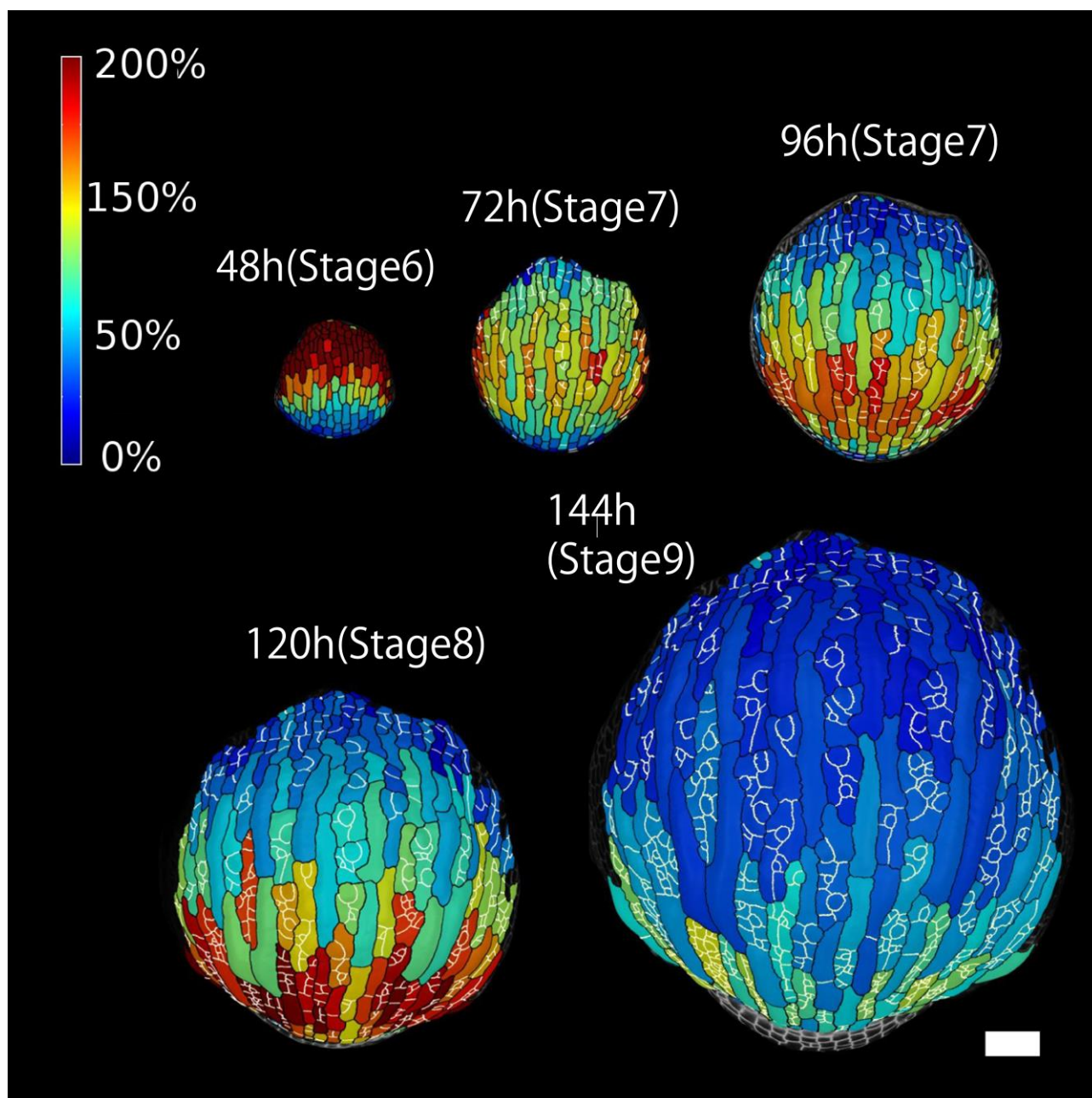


Fig. S1A-D. Heat map of areal growth of clones $(A_{t+\Delta t} - A_t)/A_t \times 100$ (%) over consecutive 12h intervals for flower wt-a2 (S1A), and consecutive 24h intervals for flower wt-b1, wt-b2 and wt-b3 (S1B-S1D). Scale bars are $50\mu\text{m}$. The clones and the new cell walls built after 0h are outlined in black and white, respectively.

Fig. S2.

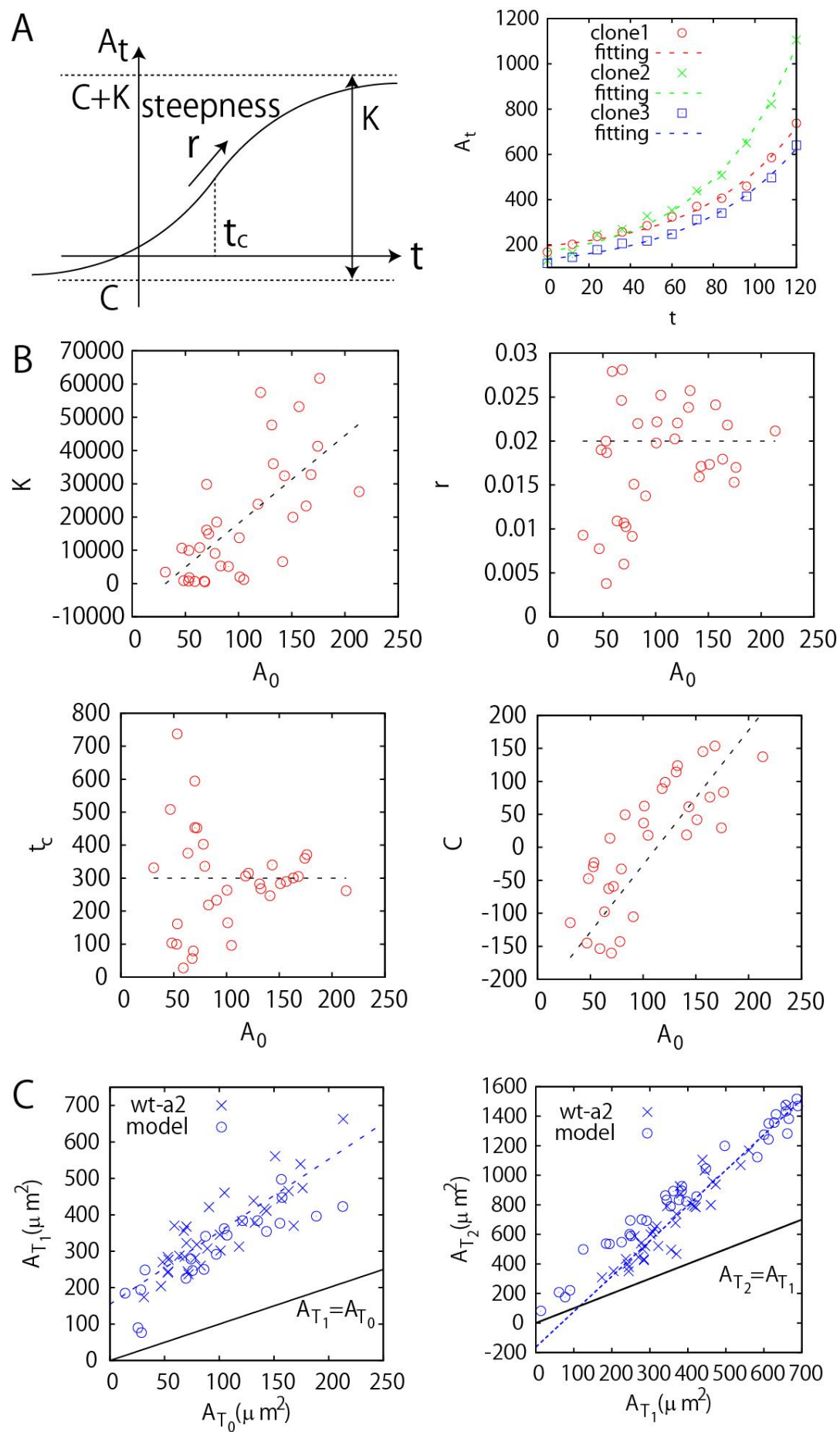


Fig. S2. (A) (Left panel) Schematic of the sigmoidal functional form $f(t) = \frac{K}{1 + \exp r(t_c - t)} + C$ where r is the steepness of the curve around the half time $t = t_c$, K is the total growth amount and C is the clone area in the very beginning. (Right panel) Fitting results of the growth curve of the area A_t . (B) Four fitting parameters with the phenomenological model (dotted line). (C) Comparison between the model and the data from Fig. 2D and 2E.

Fig. S3.

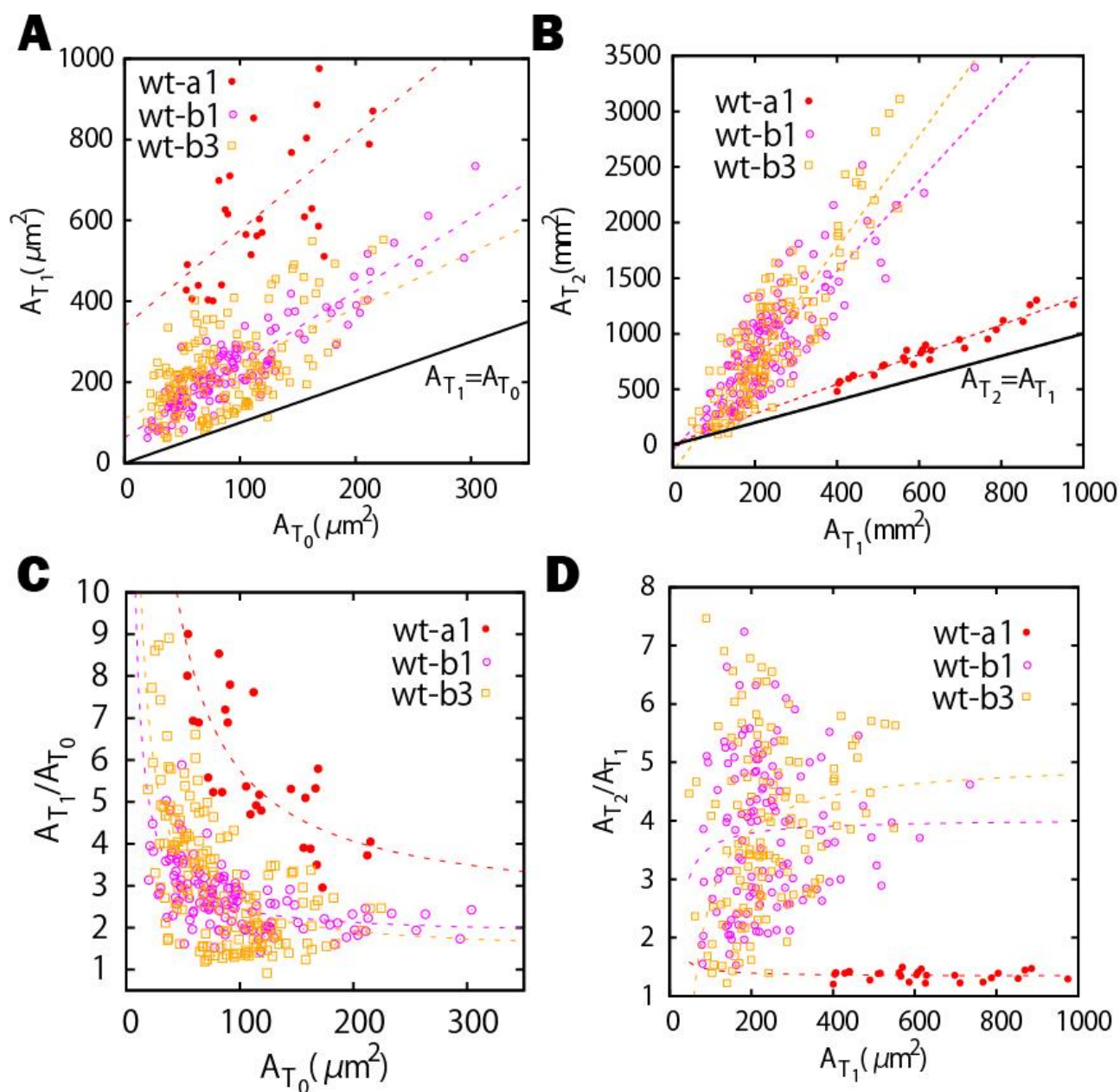


Fig. S3. (A-B) A_{T_E} versus A_{T_L} plot for the clones at T_0 versus those at T_1 (A), and at T_1 versus those at T_2 (B). (C-D) A_{T_E} versus A_{T_L}/A_{T_E} plot for the clones at T_0 versus those at T_1 (C), and at T_1 versus those at T_2 (D). Error bars represent the 50%-confidence interval (see Materials and Methods).

Fig. S4.

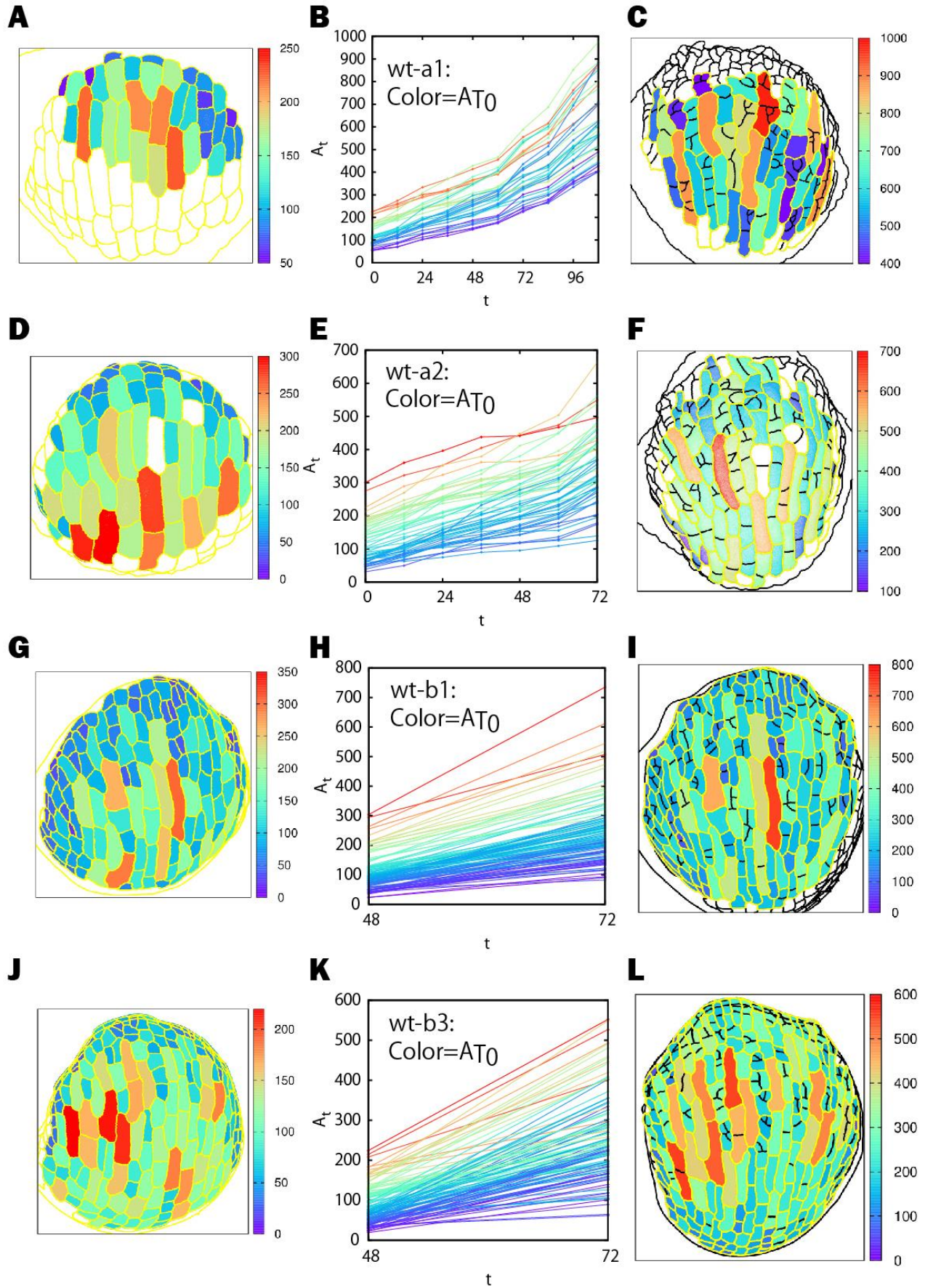


Fig. S4. (A,D,G,J) Heat map of the initial clone area A_{T_0} (μm^2). (B,E,H,K) Growth curves of clones colored according to their initial size A_{T_0} . (C,F,I,L) Heat map of the size of the clones A_{T_1} (μm^2).

Fig. S5.

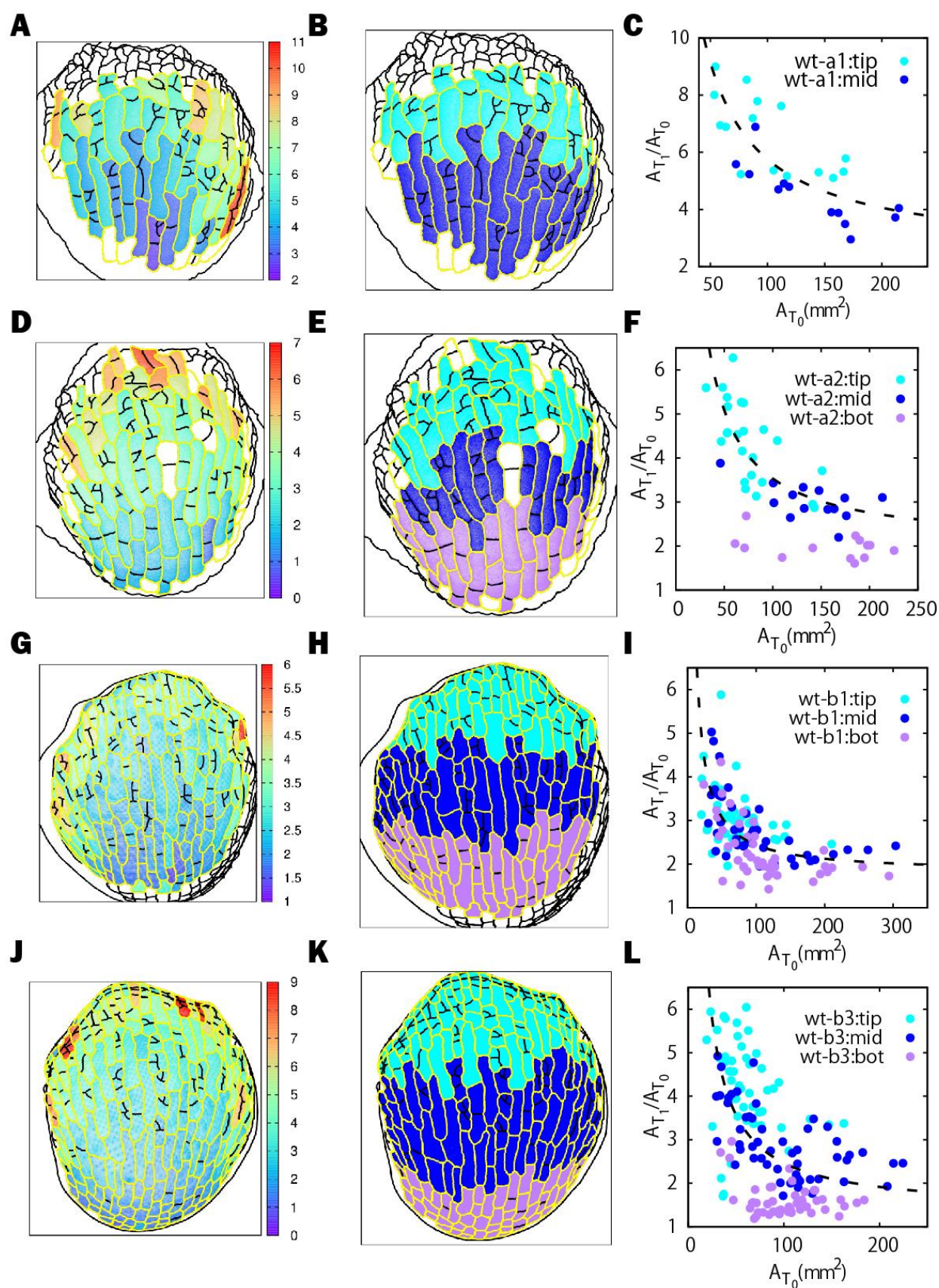


Fig. S5. (A,D,G,J) Heat map of the cumulative growth ratio A_{T_1}/A_{T_0} showing a continuous spatial trend from tip to bottom. (B,E,H,K) Classification of tip (cyan), middle (blue) and bottom (purple) regions. (C,F,I,L) Plot of cumulative growth ratios A_{T_1}/A_{T_0} versus initial area A_{T_0} for clones in each region.

Fig. S6.

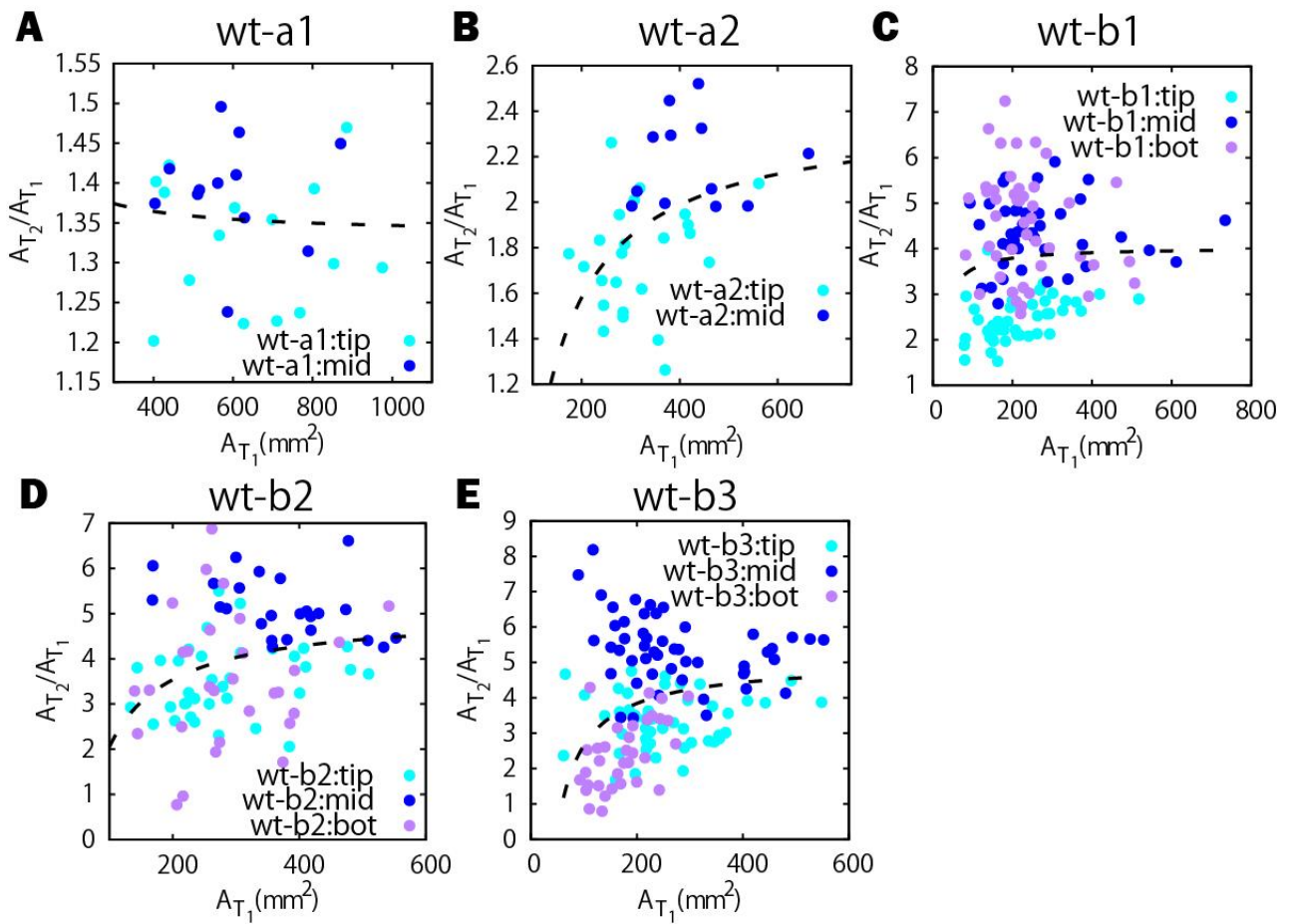


Fig. S6. (A-E) Plot of cumulative growth ratios A_{T_2}/A_{T_1} versus initial area A_{T_1} for clones in each region for wt-a1, wt-a2, wt-b1, wt-b2 and wt-b3.

Fig. S7.

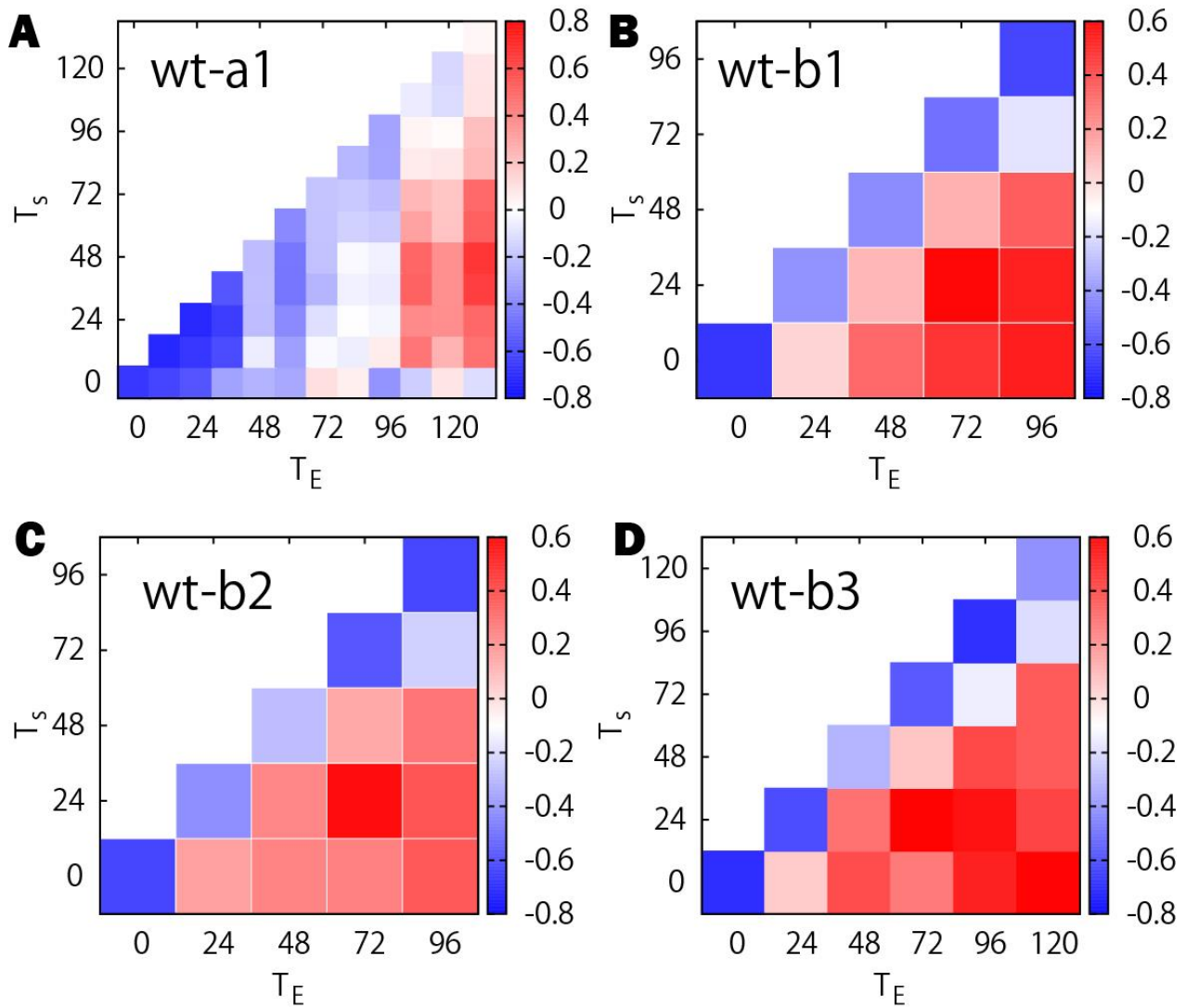


Fig. S7. (A-D) Spearman correlation coefficient between size and growth ratio of the clone for different choice of T_s and T_E for the sepal wt-a1, wt-b1, wt-b2 and wt-b3, respectively.

Fig. S8.

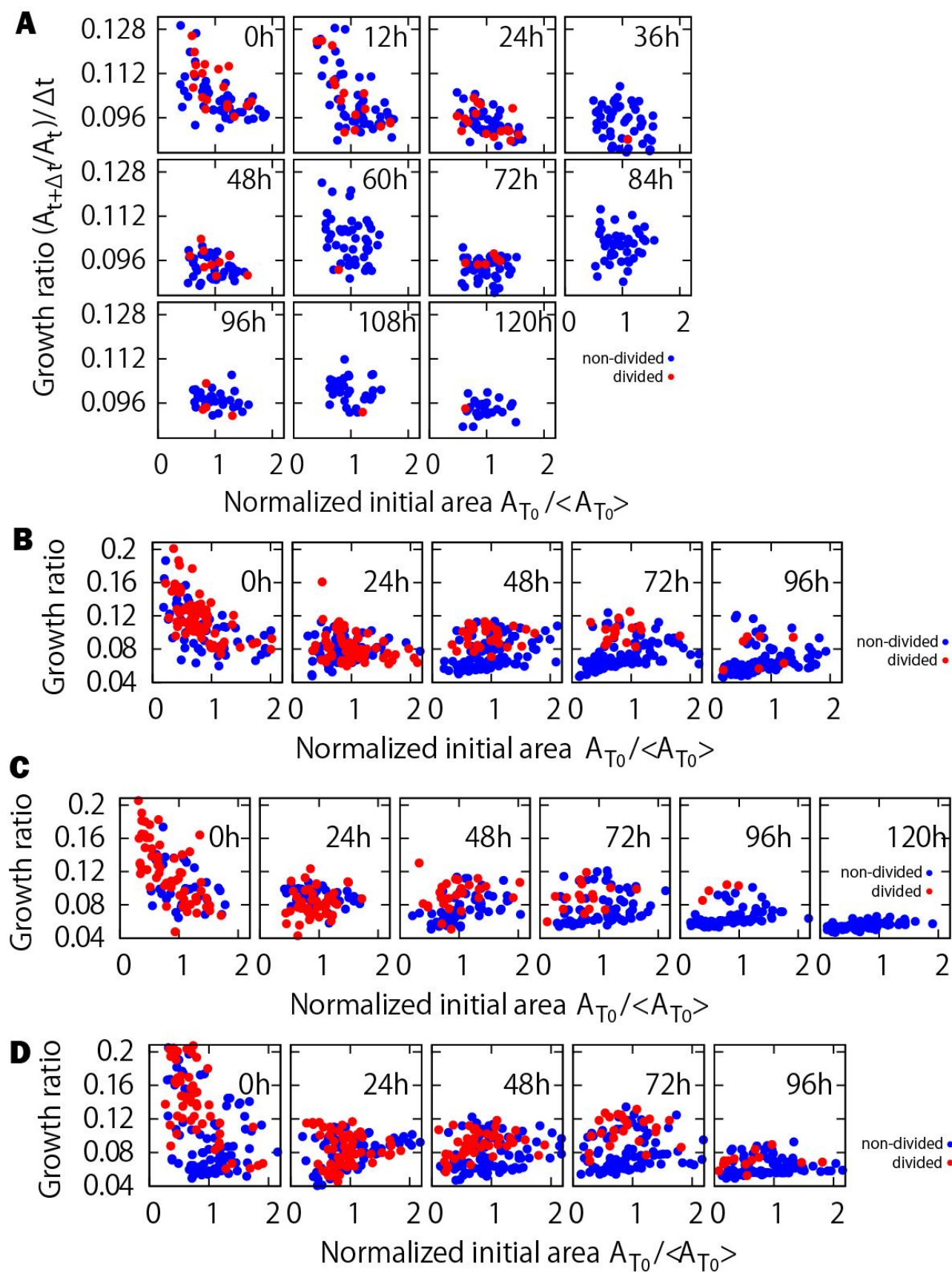


Fig. S8. (A-D) Plot of growth ratio of the clone at each time step $(A_{t+\Delta t}/A_t)/\Delta t$ versus normalized initial clone area $A_{T_0}/\langle A_{T_0} \rangle$ for the sepal wt-a1, wt-b1, wt-b2 and wt-b3, respectively.

Fig. S9.

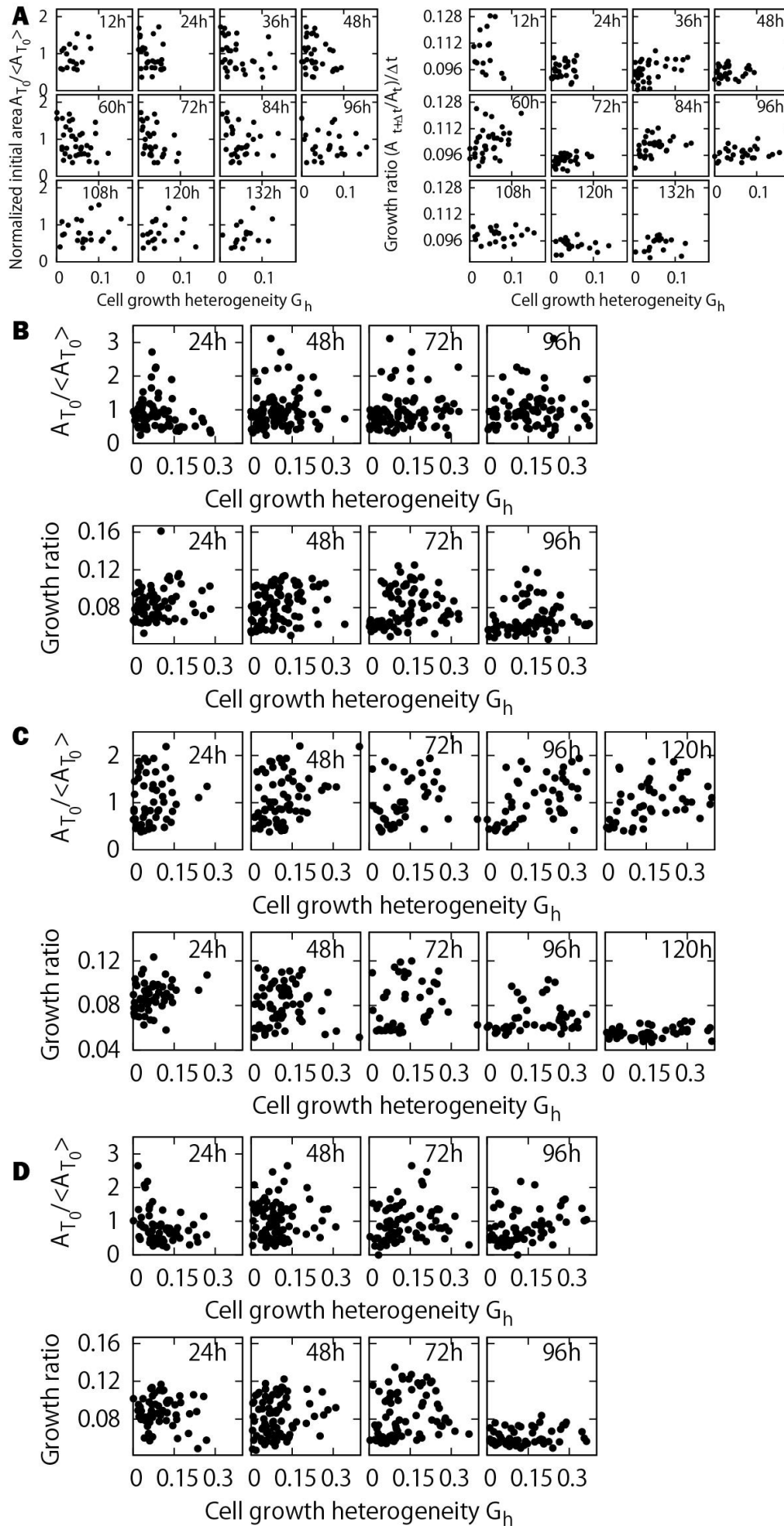


Fig. S9. (A-D) Cell growth heterogeneity versus normalized initial clone area and cell growth heterogeneity versus growth ratio of the clone at each time step for the sepal wt-a1, wt-b1, wt-b2 and wt-b3, respectively.