

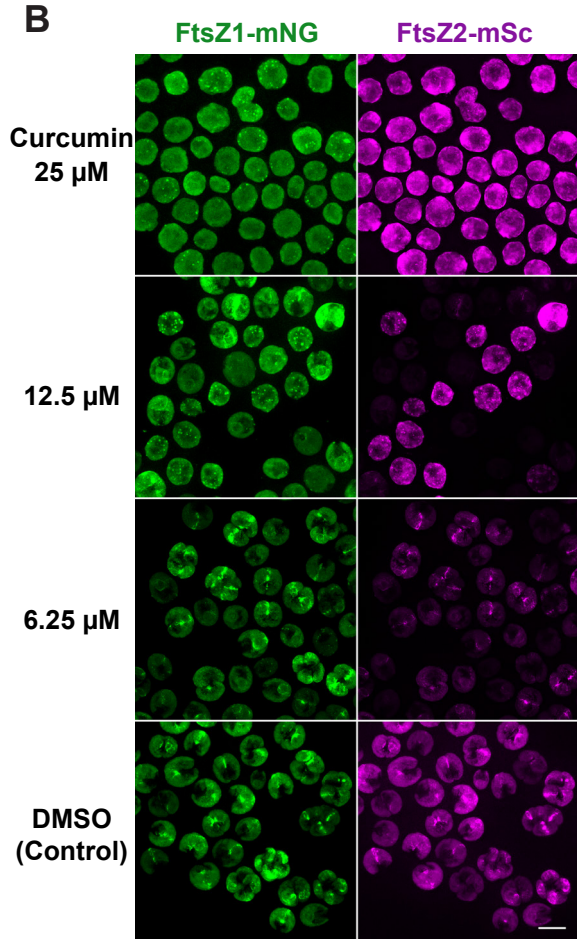
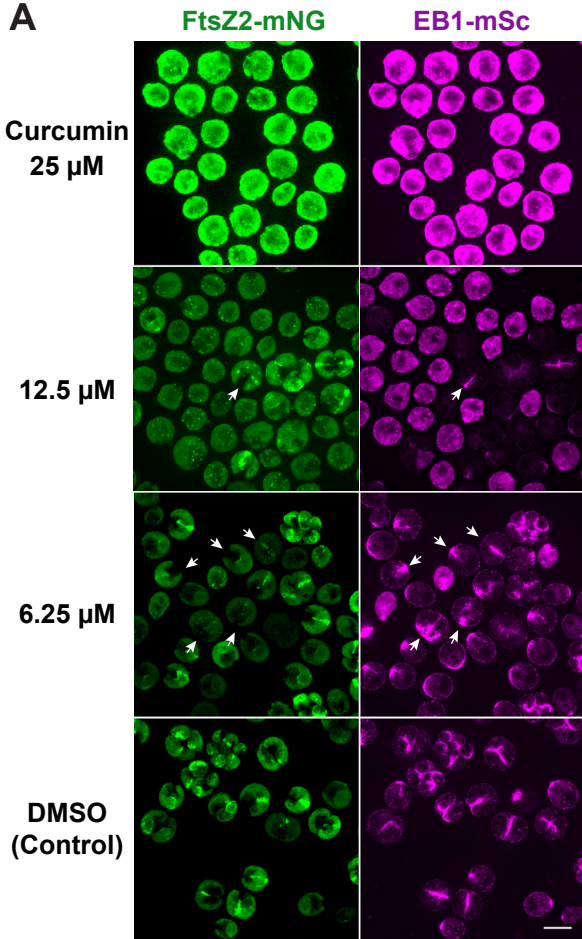
Supplemental Materials

Molecular Biology of the Cell

Clark-Cotton *et al.*

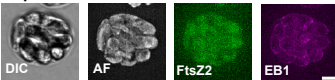
Summary of Primary and Secondary Chemical Effects

		Cell/chloroplast										EB1 structures										FtsZ2 structures															
		division		shape				size		surface		aggregates		EB1 structures				FtsZ2 structures																			
		asymmetrical	open cp	open cp	heterogeneous	undivided	bean	oval	round	heterogeneous	unperturbed	large	medium	small	heterogeneous	lumpy	smooth	heterogeneous	vacuolated	aggregates	arc	comets	corical	depolymerized	dot	none	puncta	heterogeneous	unperturbed	aggregates	none	puncta	rings	variable filaments	unperturbed		
(+)-Emetine dihydrochloride hydrate	PL3 F6	●				●						●			●		●											●		●							
(1,2,9,10-Tetramethoxy-6,7-dimethyl-5,6-dihydro-4h-dibenzo[de,g]quinoline)	PL5 C4	●													●		●												●					●			
(6aR,9R,10aR)-7,9-dimethyl-4-propyl-6,6a,8,9,10,10a-hexahydroindolo[4,3-fg]quinoline	P2Q2 B8	●								●	●				●		●											●	●		●						
13-Methoxydihydronitidine	P2Q1 C9					●				●					●		●											●			●			●			
2,2'-Dihydroxychalcone	PL8 F7					●				●					●			●	●									●			●						
2',4'-Dihydroxychalcone	PL6 E7					●				●					●			●	●							●					●			●			
3,3'-Dihydroxyflavone	PL2 C10	●								●	●				●	●	●											●			●			●			
3,3'-Diindolylmethane	PL9 E10					●				●					●			●	●									●			●						
4-Acetoxycycloheximide	P1Q4 C11					●		●		●		●	●	●	●		●				●				●	●					●				●		
6,7-Dimethoxyflavone	PL2 B10	●										●			●		●												●		●						
7,8-Benzoflavone	PL2 B7	●										●			●		●												●		●						
8-alpha-Hydroxyverrucarin A	P2Q2 B6					●			●	●		●					●	●	●									●			●						
8B-Hydroxy-9B,10B-epoxyverrucarin A	P2Q2 D7					●			●	●		●			●		●	●										●			●						
9-Methoxyellipticine	P1Q3 D7	●				●			●	●			●		●		●	●			●	●						●	●		●		●		●		
9-Methylstreptimidone	P2Q2 G2	●									●				●		●											●			●			●		●	
Acclarubicin	P2Q1 E11					●			●	●		●	●	●	●		●	●	●					●				●		●		●					
Acridone	PL2 F4	●									●				●		●												●		●			●		●	
Actinomycin D	P1Q1 D2	●									●				●		●												●			●		●		●	
Albacarcin V	P2Q2 G8	●	●	●	●		●		●		●	●	●	●	●		●												●			●			●		
Alpha-Lapachone	P1Q4 C10					●		●				●	●	●	●	●	●	●	●					●	●	●		●			●						
Anisomycin hydrochloride	P2Q1 D9					●				●		●			●		●					●						●			●			●		●	
Ansamitocin P-3	P2Q2 C6					●			●	●		●				●	●	●					●												●		
Antimycin A	PL4 G5	●									●				●		●											●			●				●		
Baccharin B2	P2Q2 B5					●			●	●		●					●												●		●			●		●	
Baccharinol	P2Q2 C5	●								●	●				●				●										●	●		●			●		●
Baccharis principle B-1	P2Q2 G4					●			●			●			●		●												●		●				●		●
Bactobolin A	P1Q2 D6	●			●	●		●		●		●			●		●				●								●			●					
Beta-Lapachone	P1Q1 D5					●																															
Biochanin A	PL4 F10				●	●				●		●			●			●	●					●					●			●					
Borrelidin	P2Q1 F11					●			●	●		●			●		●												●			●			●		●
Brefeldin A	P1Q1 B10		●	●		●			●			●					●				●	●			●							●		●			
Bruceantin	P2Q1 C10	●	●			●			●	●		●			●		●	●							●				●		●		●		●		●
Camptothecin_1	P1Q1 C10	●	●		●						●	●					●												●	●		●		●		●	
Camptothecin_2	PL3 G4	●	●							●					●		●												●	●		●			●		●
Celastrol	P1Q3 E7				●	●		●		●		●			●	●	●	●			●								●			●					
Centauridin	P2Q1 B4	●									●				●		●												●	●		●			●		●
Cephaeline hydrochloride	P1Q4 D11					●		●				●			●		●					●							●		●						
Cerulomycin A	P2Q1 F5	●				●			●	●		●		●	●		●	●			●								●			●			●		●
Curcumin_1	P1Q1 E6					●			●						●		●		●						●						●		●				
Curcumin_2	PL2 B8	●				●				●		●			●				●										●			●				●	
Cycloheximide	PL4 H9					●			●	●		●					●								●				●			●				●	
Daunorubicin hydrochloride	P1Q1 D9	●									●				●		●												●			●				●	
Diethylstilbestrol, mixture of cis and trans	PL5 C5	●									●				●																						

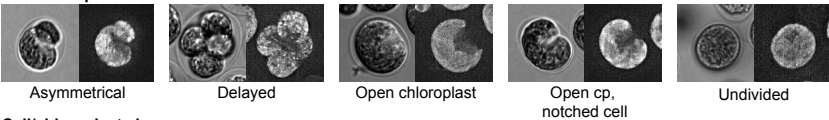


Clark-Cotton et al. Figure S2

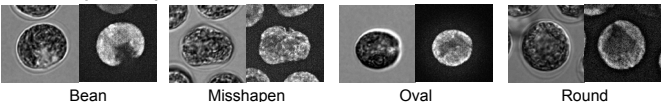
Unperturbed



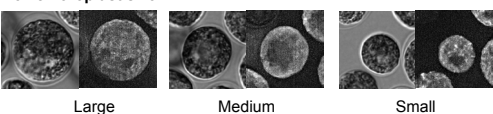
Cell/chloroplast division



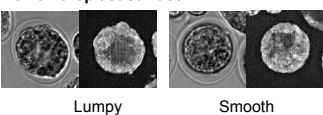
Cell/chloroplast shape



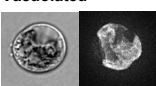
Cell/chloroplast size



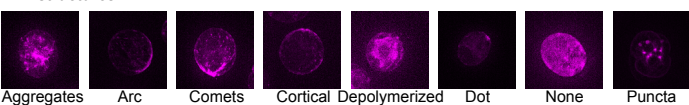
Cell/chloroplast surface



Vacuolated



EB1 structures



FtsZ2 structures

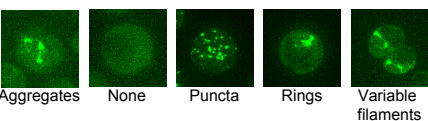


FIGURE S1: Summary of primary and secondary effects of the 70 unique compounds identified as perturbing cell and chloroplast division. All circles are the same size, regardless of the frequency of the effect. Blue: primary effects; red: secondary effects; ns: not scored.

FIGURE S2: Time-course imaging of SCC022 (FtsZ2-mNG EB1-mSc *nap1-1*) and SCC059 (FtsZ1-mNG FtsZ2-mSc *nap1-1*) at different concentrations of curcumin. The cells were synchronized on TAP agar. At hour 11 of the 12L:12D cycle, the cells were moved to TAP agar containing 25, 12.5, and 6.25 μ M curcumin, incubated at 21° C, and imaged at hour 13 (first hour into the dark period) by mounting the treated cells on TAP + 1.5% low-melting agarose with curcumin or DMSO (control, 0.25%). Arrowheads, cells with ingressing cleavage furrow associated EB1-mSc but no stable FtsZ2-mNG ring.

FIGURE S3: Examples of unperturbed and perturbed cell/chloroplast division, vacuolation, FtsZ2 structures, and EB1 structures. Scale bar = 5 μ m.