

**Table S2.** Complete list of the 75 statistically significant dependencies between pairs of characters determined with the correlated changes test implemented in MacClade (Maddison & Maddison 1989)

character numbers correspond to the character numbers in Fig. 2 and Fig. S1

character		MacClade p-Value:	dependent character		mutual dependency:
number:	description:		number:	description:	
2	if there is symmetric ruffling in the one-cell stage:	0.0067	11	there is no cytoplasmic posterior flow	y
		0.018	17	the PN meet in the middle	y
		0.0227	31	there is no ruffling at the two-cell stage	y
3	if there is no anterior PB:	0.045	2	there is no asymmetric ruffling	n
		0.002	5	there is a PB in the posterior	y
		0.017	6	there is only one PN	y
		0.012	7	there are detached centrosomes	n
		0.033	11	there is no cytoplasmic posterior flow	y
		0.017	13	there is no anterior PN migration	y
		0.013	20	there is no spindle rotation	n
		0.0031	33	there are PC-like constrictions at the two-cell stage	y
5	if there is a posterior PB:	0.002	3	there is no anterior PB	y
		0.045	11	there is no cytoplasmic posterior flow	y
		0.021	13	there is no anterior PN migration	y
		0.0127	27	the nuclei touch the cytokinesis plate	y
6	if there is only one PN:	0.043	3	there is no anterior PB	y
		0.0013	7	there are detached centrosomes	n
8	if there is no PC:	0.01	3	there is no anterior PB	n
		0.0093	11	there is no cytoplasmic posterior flow	y
		0.001	13	there is no anterior PN migration	y
		0.024	20	there is no spindle rotation	n
11	if there is no cytoplasmic posterior flow:	0.0047	2	there is no asymmetric ruffling in the one-cell stage	y
		0.01	3	there is no anterior PB	y
		0.0027	5	there is a PB in the posterior	y
		0.041	8	there is no PC	y
		0.042	13	there is no anterior PN migration	y
		0.0067	17	the PN meet in the middle	y
12	if there is no cortical anterior flow:	0.018	2	there is no asymmetric ruffling in the one-cell stage	n
		0.025	5	there is a PB in the posterior	n
		0.018	8	there is no PC	n
		0.001	11	there is no cytoplasmic posterior flow	n
		0.025	17	the PN meet in the middle	n
13	if the anterior pronucleus doesn't migrate:	0.025	3	there is no anterior PB	y
		0.025	5	there is a PB in the posterior	y
		0.0127	8	there is no PC	y
		0.018	11	there is no cytoplasmic posterior flow	y
14	if there is no pronuclear migration of the posterior pronucleus:	0.041	1	there is no membrane ruffling in the one-cell stage	n
		0.015	22	there is no anterior rocking	y
16	if there are clear areas at the two-cell stage	0.006	27	the nuclei touch the cytokinesis plate	y
		0.002	31	there is no ruffling at the two-cell stage	y

character		MacClade p-Value:	dependent character		mutual dependency:
number:	description:		number:	description:	
17	if the pronuclei meet in the middle:	0.012	2	there is symmetric ruffling in the one-cell stage	y
		0.021	5	there is a PB in the posterior	n
		0.006	11	there is no cytoplasmic flow to the posterior	y
		0.02	14	there is no posterior PN migration	n
		0.028	27	the nuclei touch the cytokinesis plate	n
		0.014	31	there is no ruffling at the two-cell stage	y
18	if NEBD is not in the center:	0.034	39	there is AB spindle rocking	y
22	if the anterior spindle pole rocks:	0.015	14	the posterior pronucleus migrates	y
23	if the posterior spindle pole rocks:	0.0073	22	the anterior spindle pole rocks	n
26	if the nuclei don't move:	0.045	2	there is no asymmetric ruffling	n
		0.048	5	there is a PB in the posterior	n
		0.045	17	the PN meet in the middle	n
		0.041	31	there is no ruffling at the two-cell stage	n
27	if the nuclei touch the cytokinetic plate:	0.012	5	there is a PB in the posterior	y
		0.0033	16	there are areas clear of yolk granules in the two-cell stage	y
		0.012	31	there is no ruffling at the two-cell stage	y
30	if there are vacuoles:	0.027	34	the cell cycles are not asynchronous	n
31	if there is no ruffling at the two-cell stage:	0.0047	2	there is no asymmetric ruffling at the one-cell stage	y
		0.037	11	there is no cytoplasmic posterior flow	n
		0.0013	16	there are areas clear of yolk granules in the two-cell stage	y
		0.006	17	the PN meet in the middle	y
		0.014	27	the nuclei touch the cytokinetic plate	y
32	if there is asymmetric ruffling at the two-cell stage:	0.049	19	NEBD happens before the spindle set up	n
		0.016	21	there is a spindle shift	n
33	if there are PC-like constrictions:	0.004	3	there is no anterior PB	y
		0.049	8	there is no PC	n
		0.041	13	there is no anterior PN migration	n
		0.002	38	the P2 cell does not immediately touch the AB lineage	y
35	if P1 divides before AB:	0.0067	6	there is only one PN	n
		0.015	7	there are detached centrosomes	n
38	if the P2 cell does not immediately touch the AB lineage:	0.018	6	there is only one PN	n
		0.022	7	there are detached centrosomes	n
		0.017	20	there is no spindle rotation	n
		0.006	33	there are PC-like constrictions at the two-cell stage	y
39	if the AB spindle rocks:	0.038	18	NEBD is not in the center	y

Abbreviations used:

**NEBD** Nuclear Envelope Breakdown  
**PB** Polar body  
**PC** Pseudo-cleavage  
**PN** Pronucleus, Pronuclei