

## GSA Data Repository 2016240

Meroblastic cleavage identifies some Ediacaran Doushantuo (China)

embryo-like fossils as metazoans

Yin et al.

### 1 APPENDIX 1 VOLUME DATA

2 Table DR1 Volume and volume ratio of cells in the specimens WB1-H03 (data  
3 marked by light blue) and WB1-H02 (data marked by light green). IN SPACE,  
4 inter-cellular space, the cells in WB1-H03 are numbered as in Figure 1 and S1.

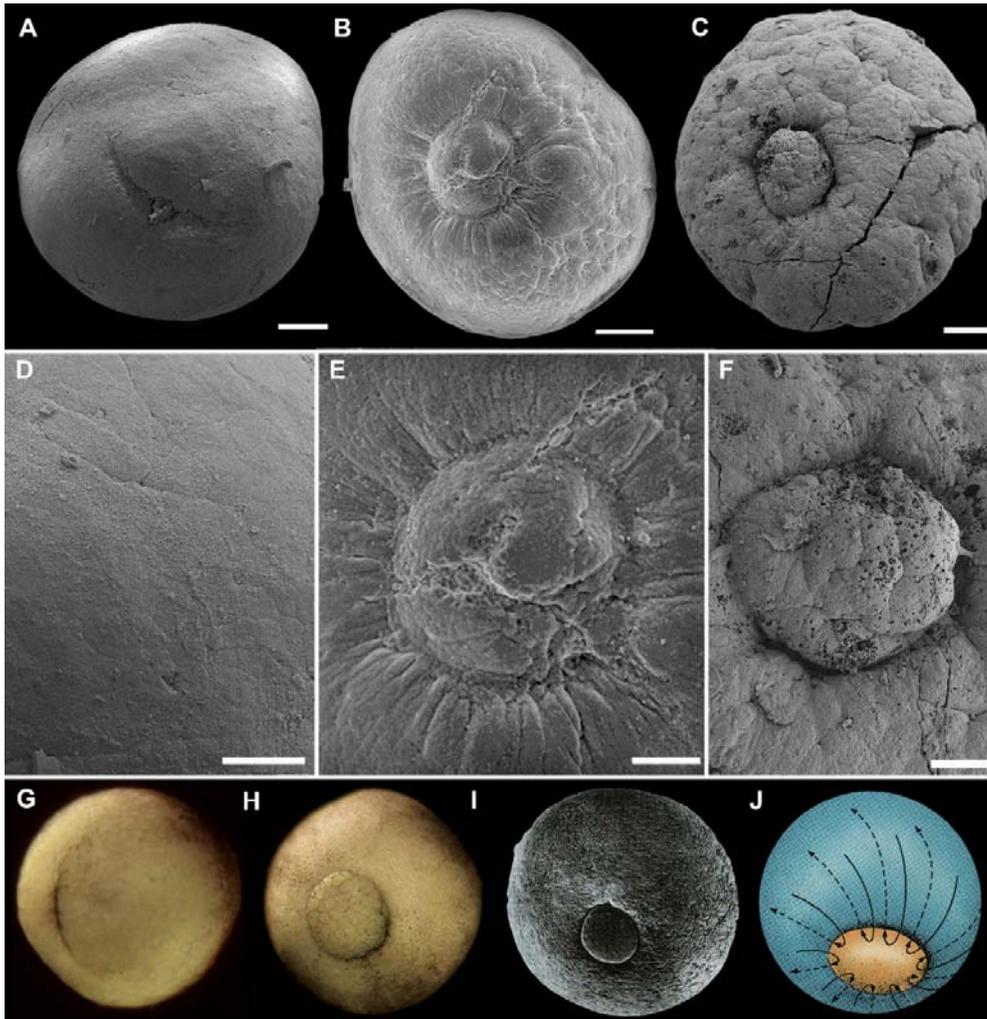
5

Cell No.	Voxel count	Volume ( $\mu\text{m}^3$ )	Volume ratio
Big cell	349079706	61338890	63.35%
Cell-1	14063956	2471262	2.55%
Cell-2	15826354	2780944	2.87%
Cell-3	13443512	2362240	2.44%
Cell-4	11184876	1965362	2.03%
Cell-5	8606281	1512261	1.56%
Cell-6	10878007	1911440	1.97%
Cell-7	9933535	1745481	1.80%
Cell-8	15787568	2774128	2.86%
Cell-9	12123686	2130326	2.20%
Cell-10	14553802	2557336	2.64%
Cell-11	13374884	2350181	2.43%
Cell-12	16833688	2957948	3.05%
IN SPACE	45372247	7972630	8.23%
Total	551062102	96830428	100%
Big cell	277269210	48720636.5	57.00%
Cell (yellow)	47021734	8262471.0	9.67%
Cell (brown)	49141731	8634988.4	10.10%
Cell (purple)	51933366	9125523.3	10.68%
Cell (red)	61071181	10731183.6	12.55%
Total	486437222	85474802.9	100%

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8 APPENDIX 2 FIGURE DR1



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10 **Figure DR1\*** Possible Ediacaran Doushantuo gastrula embryo fossils (A-F) and  
11 extant animal gastrula embryos undergoing epiboly (G-I). D-F, magnification reviews  
12 of A-C, respectively, showing surface cell structures (D) and yolk plug-like structures  
13 (E and F). G-I, extant amphibian gastrula embryos undergoing epiboly. G shows the  
14 lip structures, H and I show yolk plug structures. J shows the mode of epiboly  
15 gastrulation. The scale bar is 100  $\mu\text{m}$  for A-C, 50  $\mu\text{m}$  for D-F. The living amphibian  
16 embryos are around 600-800  $\mu\text{m}$  in diameter.

17 \* The images A-H are adopted from (Yin and Zhu, 2010), the images I and J are

18 adopted from (Gilbert, 2012).

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20 **References cited**

21 Gilbert, S. F., 2012, *Developmental Biology* (9th edition), Sunderland, USA, Sinauer Associates, Inc.,  
22 1-716 p.

23 Yin, Z., and Zhu, M., 2010, Epibolic gastrula embryo fossils from the Ediacaran Weng'an Biota (Guizhou,  
24 southwest China): *Acta Palaeontologica Sinica*, v. 49, p. 325-335.