



# Corrigendum: Inherency of Form and Function in Animal Development and Evolution

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## A Corrigendum on

**Inherency of Form and Function in Animal Development and Evolution**  
by Newman, S. A. (2019). *Front. Physiol.* 10:702. doi: 10.3389/fphys.2019.00702

In the original article, there was a mistake in **Table 1** as published. Because of an editing error, the lines for “Apicobasal cell polarization” and “Nonliquid cellular assemblages *via* matrices” were transposed. The corrected **Table 1** appears below.

The author apologizes for this error and states that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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**TABLE 1** | Novel inherent properties in animal development and evolution.

Property	Gene or molecular motif	Character
1. Properties dependent on novel genes or regulatory motifs coincident with emergence of Metazoa		
Liquid-tissue state	Classical cadherins	Multicellularity; layering
Regulated cell polarity	Wnt	Lumens; elongated tissues
Capacity to exaggerate intrinsic cell functions	Enhancers; PcG proteins	Differentiation
Morphogen gradients	Hedgehog, BMPs	Simple cell patterns
2. Properties dependent on novel genes acquired after metazoan origins		
Liquid-crystalline-tissue state	Vang/Stbm	Tissue elongation
Wettable substrata (basal lamina)	Peroxidasin	Appendages, glands
Lateral inhibition; oscillation of gene expression	Notch, Hes1	Complex cell patterns
Multiple alternative cell types	MyoD, PPAR $\gamma$ , SMAD	Complex tissues, organs
3. Properties dependent on ancestral genes repurposed into DPMs in the multicellular context		
Cell-cell cohesion in liquid tissues	Grainyhead	E-M transformation
Apicobasal cell polarization	$\beta$ -catenin	Epithelia and lumens
Nonliquid cellular assemblages via matrices	Collagen IV	Mesenchymal tissues
Cell-cell electrical coupling	Voltage-gated channels	Bioelectrical integration

*Each list is nonexhaustive but contains the most important examples of its respective category.*