

Scientific Guidelines for Authors submitting to *Developmental Biology*

Developmental Biology's goal is to publish high quality papers providing causal insight into the cellular and molecular mechanisms that govern developmental processes.

Studies which simply confirm an established functional role for a developmental component by presenting analysis in a new species lack sufficient novelty for consideration.

Similarly, purely descriptive spatial gene expression or gene phylogeny articles are not considered for publication unless they are notably of consequence and are of particular value to the field.

The following types of papers have specific guidelines:

Expression profiling and gene expression studies must contain supporting functional data. Studies solely based on analysis of expression by microarray, northern blots, PCR or *in situ* hybridization are too descriptive or preliminary to justify full review.

Gene knock-down experiments:

Experiments using interfering DNA or proteins to address gene function are expected to be highly controlled. In particular, experiments with **Morpholino, RNAi, siRNA or dominant negative constructs are expected to contain very precise controls to address the specificity of the effects observed.**

Studies in which the expression, structure or function of a gene/protein is altered but lead to **no phenotypic consequences** are not appropriate. Furthermore, studies of mutants which simply show that a gene/protein is required for development will be discouraged unless attempts are made to address the mechanistic basis, causal roles or tissues and processes affected.

Experiments using **stem cells** must advance our understanding of biological functioning. Studies that simply grow/isolate stem cells from a tissue and show what markers they express are not appropriate.

Studies using **cell culture** must show direct (in vivo) relevance in a developmental context.