**The PAR network**

The PAR proteins (table x) were first identified in \textit{C. elegans} in screens of mutants that disrupt asymmetric zygote divisions \citep{Kemphues1988, Morton2002, Watts1996}. Subsequent work showed that these proteins direct asymmetric cell divisions by controlling both the segregation of fate determinants and asymmetric positioning of the cleavage plane (Guo1996), leading to two cells that differ in size and fate. It was shown that during polarisation, a subset of the PAR proteins become enriched asymmetrically at the cell cortex in distinct anterior and posterior domains. The PAR proteins themselves are responsible for organising themselves in this fashion, through a process of mutual antagonism between the two groups.

Since the initial discovery of the PAR proteins, work has gone to characterize the PAR proteins as a diverse and highly conserved set of scaffold proteins, adaptors and enzymes, which are conserved across metazoa and regulate polarity in numerous contexts, in cells of a range of sizes, and in response to a range of different cues \citep{Goldstein2007, Goehring2014}. Detailed mechanisms differ between systems, such as unipolar polarity without an opposing domain in some cases, and junctional domains in other cases. However, many of the core principles underlying polarity in different systems appears to be conserved.