Editorial

The cell death forum

A Verkhatsky^{*1} and A Hague²*Cell Death and Differentiation* (2009) 16, 359; doi:10.1038/cdd.2008.180

All, all, that is frightening with destruction,
 To the mortal's heart covertly holds
 The inexplicable pleasures
 The immortality's promise, perhaps!
 And happy is the one who amidst the turmoil
 Can find and feel them.

Aleksandr Pushkin, 'A Feast During the Plague'

Most living entities, from single cells to organisms, have one thing in common: they all undergo the process of death. For multicellular organisms, this process generally is neither tragic nor terminal; far from it, death is inseparable from life and the death of cells occurs continuously and represents one of the most fundamental homeostatic mechanisms that underlie development and survival. Yet one day, the same process terminates the existence of the organism, serving another fundamental goal: survival of the species and maintenance of life in the universe.

The understanding of the way by which death comes to organisms, tissues and cells has always fascinated and inspired scientists. The cell death occurs in various guises,

and yet the underlying mechanisms are surprisingly common and conserved, although they may control a very distinct form of cell demise from necrosis and excitotoxicity to autophagy and apoptosis.¹ Evolution has selected several fundamental survival mechanisms, which, when compromised, often turn into the death pathways. These pathways have been characterised in much detail during recent years, and yet every now and then more new and fascinating peculiarities of death-related processes are uncovered. We composed the review set, published in the present issue of *Cell Death and Differentiation* from selected lectures delivered in Bristol in April 2008^{2–5} with an intention of presenting a broad overview of death and protection of cells in various tissues.

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3. Vogler M, Dinsdale D, Dyer MJS, Cohen GM. *Cell Death Differ* 2009; 16: 360–367.
4. Balmain K, Cook SJ. *Cell Death Differ* 2009; 16: 368–377.
5. Rodríguez JJ, Olabarria M, Chvatal A, Verkhatsky A. *Cell Death Differ* 2009; 16: 378–385.

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