# BIOACTIVE SUBSTANCES FROM THE *NIGELLA SATIVA* SEEDS

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**Abstract.** The researches performed in the research grant nr. 34,677/2005-2007 have the aim the establish the effects of different bioactive substances, extracted from seeds of some *Nigella sativa* (Fam. *Ranunculaceae*) genotypes. In experiments performed on labor animals (*Mus musculus L.*), was demonstrated the antistress and immunoprotector effect of different bioactive substances extracted from *Nigella sativa* seeds, minimum doses which induced an cytotoxic effect, as well as induced adulterations at the ultrastructural level (liver and/or spleen). In this study, is analyzed comparative, the radioprotective and immunostimulatory effect of different active biological substances extracted from the *Nigella sativa* seeds, towards of some stress factor, in *Mus musculus*.

**Key words:** *Nigella sativa; Mus musculus;* bioactive substances; antistress and immunoprotector effect.

## [1] Introduction

### 1.1. The biology of *Nigella sativa* species.

*Nigella sativa* (Fam. *Ranunculaceae*), is an annual plant, native from Mediterranean area and South-West Asia. The plant reaches to 20 - 30 cm in height, having fin-divided leaf, linear. The flowers with 5 - 6 (10) petals, white or pale-bluish (especially in the main rib region). This species is spontaneously or cultivated. The fruit is a capsule, performed from 3 - 7 follicles, each having numerous seeds of a relative triangular shape, black, strongly odorants. The seeds are used, having a piquant flavor, having numerous bioactive substances.

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