In view of the increasing number of fungal pathogens and the increased resistance of these pathogens to already available antifungal agents, a new structure inhibiting the growth of these pathogens must be sought.

In the area of guanidine-derived substances, a worldwide research is taking place, which is also attended by the Faculty of Pharmacy in Hradec Králové.

As part of my bachelor thesis, five previously unpublished substances have been synthesized:

- hexadecyl(4-methyl-2-nitrophenyl) sulfide
- 2-(hexadecylsulfanyl)-5-methylaniline
- 2-(hexadecylsulfanyl)-5-methylanilinium chloride
- 2-[2-(hexadecylsulfanyl)-5-methylphenyl]guanidinium nitrate
- 2-[2-(hexadecylsulfanyl)-5-methylphenyl]-1,1-dimethylguanidine