Yeasts excrete metabolitesinto the environment some of which may have a signal function. The small signalling molecules include ammonia, alcohols, esters, acids and CO2 beside other molecules. These substances may be formed as waste products of metabolism, such as some alcohols in the catabolism of amino acids. After exclusion they influence other / surrounding cells by binding to receptors or they affect their target in the cell or may form a concentration gradient or a pH gradient. New findings show that using ammonia yeasts can communicate and may diversify within colonies. Farnesol, tyrosol and other molecules use the yeasts to quorum sensing. Yeasts also secrete aromatic esters and fatty acids. High concentrations of CO2 trigger switch from yeasts to hypha. This paper summarizes existing information on the occurrence and impact of selected molecules (ammonia, alcohols, esters, acids and CO2) signaling in the yeast Saccharomyces cerevisiae and Candida albicans.