Synthesis of biologically active oligosaccharides, triterpenes, and saponins

Triterpenes and saponins (triterpene glycosides) – an important class of natural compounds widely distributed in plant kingdom – exhibit a broad spectrum of interesting biological activities; e.g. saponins are active components of plant extracts and ointments used in traditional medicine and cosmetics. We use triterpenes isolated from birch bark (betulin, betulinic acid) and cork oak bark (friedelin) in the synthesis of new, cytotoxic compounds by rearrangements and functionalization of the core structure, as well as glycosylation.