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## A FAMILY OF BIS-1,2,3-TRIAZOLE LINKED CARBOHYDRATE DIMERS

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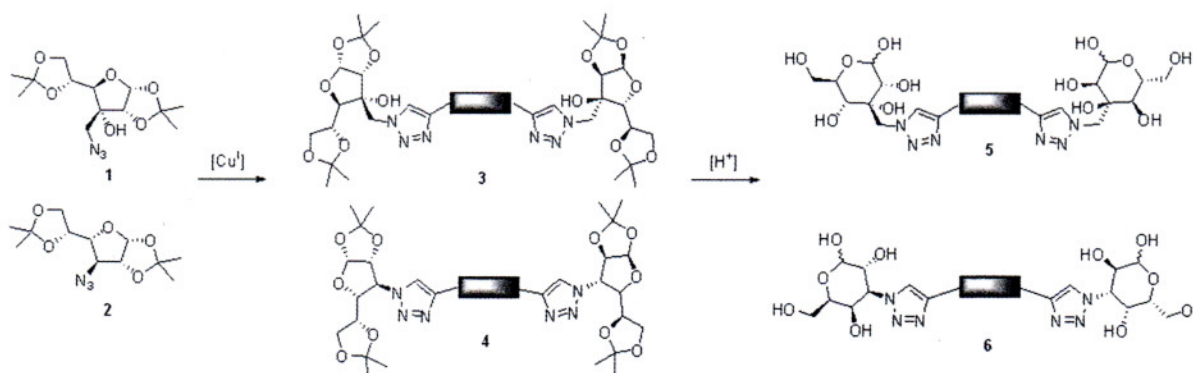
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Oligosaccharides and glycoconjugates have integral part in many biological processes.<sup>1,2</sup> Carbohydrates are the main energy source in living organisms; they play important roles in cellular recognition processes and have relevant effect on the immune response and viral infections.<sup>3</sup>

Since the discovery of copper catalyzed azide – alkyne cycloaddition (CuAAC) independently by groups of M. Meldal<sup>4a</sup> and K. B. Sharpless<sup>4b</sup> different triazole-carbohydrate conjugates with different biological activities have been prepared.

Many studies have been reported on the inhibitory properties on the proliferation of leukemia cells<sup>5</sup> and glycosidase.<sup>6</sup> Nevertheless it should be mentioned that 1,2,3-triazolyl glycohybrids also have been described as compounds with antifungal and antibacterial activity.<sup>7</sup> On the other hand, such adducts have been also studied as antiviral<sup>8</sup> and antitubercular agents.<sup>9</sup>

We would like to report here synthesis of a series of 1,2,3-triazole-linked disaccharides, obtained by well-established CuAAC approach.



Efficient Cu(I)-catalyzed cycloadditions between diacetone-D-allose and diacetone-D-galactose derived azides **1** and **2** and different diynes with following removal of protecting groups gave novel stable triazole-linked disaccharides, which are soluble in water.

Commercially available 1,*n*-diynes or 2,2-dipropargyl dimedone, 5,5-dipropargyl Meldrum's acid, 3,3-dipropargyl barbituric acid and ether of ethylene glycol were used as precursors for extended linkers.

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