

PRESENTATION ABSTRACT**Presentation topic: Cellulosic ethers from Hercules for tablet binding****Speaker:**

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Presentation abstract:

- Cellulose ethers are widely used as binders in tablet formulations. Hercules, as a leading manufacturer of cellulose derivatives, offers five types of cellulose derivatives, namely Carboxymethylcellulose Sodium (CMC), Hydroxyethylcellulose (HEC), Hydroxypropylmethylcellulose (HPMC), Hydroxypropylcellulose (HPC), and Ethylcellulose (EC).
- High molecular weight types of HEC, HPMC and HPC are used at concentrations between 20 and 30% of the tablet formulation, acting not only as tablet binder but also as a functional ingredient to modify the release rate of active pharmaceutical ingredients (API). A systematic evaluation of the effects of polymer hydrophilicity and molecular weight on the release rate of low, medium and high solubility APIs has previously been presented.
- Ethylcellulose (EC) can be used as a wet granulation tablet binder from organic solution. In addition, Hercules also offers a unique, modified EC for direct compression.
- This presentation will focus on the use of low molecular weight Hydroxypropylcellulose (Klucel®HPC) as binder for immediate release tablets. Its performance in direct compression, roller compaction and wet granulation will be compared to other commonly used binders in various sample formulations of high dosage APIs with difficult compression properties.