

InnoTherapy's Site Specific PEGylation (SEG™)

Our Selective PEGylation Technology Platform renews the future biosimilar and new drugs

The PEGylation technology has been used for many years to extend half life of small proteins or nucleic acid based drugs. It is basically attaching PolyEthylene Glycol (PEG) to a protein molecule via covalent bond. Though it is a great technology, its major short coming is that it targets ϵ -amine of the protein at random, which can easily disrupt active sites of the protein, rendering it inactive. In addition, it can easily result in heterogeneity of target protein molecules.

At Innotherapy, our technology solves these issues by selectively conjugating PEG to the N-terminal of the protein molecules, thus creating mono-PEGylation of the target protein and achieving homogeneity of the drug compounds. Although Aldehyde based PEGylation does create similar end results, its dependence on harsh chemical treatment and acidic pH may pose another level of technological issues in final products. Our PEGylation is not only selective on putting the PEG on the N-term only, but also can produce higher yield through less disruptive chemical steps. Its usage in EPO and G-CSF alone can create multi Billion dollar block buster drugs and can be used to new protein based drugs. Thus our platform technology can be applied to a wide range of potential and existing drug molecules for bio-better or bio-similar markets.

Innotherapy seeks strategic partners who intend to apply our new PEGylation technology platform to develop either a new drug or bio-better existing drugs. After successful results, we are interested in various deal structure such as licensing, supplier relationship, or even sell the technology in one lump sum. For more info, please contact Myung Kim, Director of BD, at mkim@innotherapy.com or Moon Sue Lee, CEO, at ceo@innotherapy.com.