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Sublingual delivery of peptides and small proteins: exenatide, insulin and IL-2 as examples

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BioLingus is spearheading the development of non-invasive delivery of biological drugs. Such technology is a breakthrough innovation in for instance treatments of diabetes and inflammatory diseases. BioLingus focusses on sublingual administration, because it is a very direct route into the body and may limit variability as compared to classical oral administration (via the gut). Examples will be given of the delivery of peptides such a GLP-1 agonist and insulin. Aside from peptide delivery, the BioLingus formulation is also well suited to the delivery of immuno-active molecules, such as low-dose IL-2, which promotes immune-homeostasis (inducing tolerance to allergy or diminishing auto-immunity). From a technical perspective, the BioLingus technology uses advanced bio-engineering technologies to mimic how proteins are stabilized in nature: Some components of the formulation are derived from nature and, in particular, from the seeds of plants in which proteins can be stabilized for a long time in extreme natural conditions; from a processing perspective, the BioLingus technology uses proprietary equipment to generate a process that can be considered as a hybrid between spray-drying and spray-chilling; as such, the BioLingus' technology is based on three proprietary pillars of a unique formulation, process and equipment. As a company, BioLingus has received several awards, amongst others the 2016 award as the most innovative biotech company 2016 from the European CEO Magazine.

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