Abstract

Bioconjugation is a relatively new procedure in which pharmaceutical developers may take one synthesized component and link it to a naturally occurring molecule such as a protein, cell, or microorganism using another peptide-based linker, these linkers target specific functional groups used in the conjugation process. To synthesize the materials necessary for testing of a novel o-aminoanilide linker, methods used consist of Solid Phase Peptide Synthesis (SPPS), thioesterification, diazotization, and Native Chemical Ligation (NCL), reactions were then tracked using Reverse Phase High Performance Liquid Chromotography (RP-HPLC). Synthesis of the linker is achieved by coupling o-Phenylenediamine to Succinic Anhydride and activated as an N-Hydroxysuccinimide. This linker utilizes amine groups on peptides, proteins, or other synthesized molecules and couples them together by NCL. Such linkers are a vital component in medications used to treat Hodgkins Lymphoma, Pneumococcal pneumonia, and the development of other protein-based drugs. The addition of another peptide linker adds to the "toolbox" of pharmaceutical developers worldwide.









el linker successfully oled to Cys-linked ide and amine of Enkephalin peptide. pensive synthesis of er. gents are easily hased and mercially available.	 Works Cited: [1] Sangeetha, N. <i>et al</i> (2019). Emerging Trends in Therapeutic Peptide Pharmaceuticals: Prospects and Perspectives. Retrieved August 04, 2020, from http://jddtonline.info/index.php/jddt/article/view/2622. [2] Seattle Genetics, Inc. (2020). Brentuximab Vedotin (ADCETRIS®). Retrieved August 04, 2020, from https://www.seattlegenetics.com/pipeline/brentuximab-vedotin. [3] Wang, J., <i>et al.</i> (2014). Peptide-o-aminoanilides as Crypto-Thioesters for Protein Chemical Synthesis. <i>Angewandte Chemie, 127</i>(7), 2222-2226.
Work: ng o-aminoanilide er with extracted odies and/or larger des.	 Acknowledgement: The project described was supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institute of Health under Grant #P20GM103408. Darren Thompson, Kirsten Blanchette, Rhena Cooper, Mellisa Clemons, Bill Richards, and David Foster for their wonderful guidance, support, patience, and persistence.