



New York Protein Biologics

www.nyproteins.com

Harnessing the
commercial power
of proteins

Proteins perform the vast majority of the work in living cells, which is why they already dominate parts of the biotechnology industry. They are likely to dominate the biopharmaceutical industry in the 21st century. Based on our proprietary technologies and unparalleled know-how, **New York Protein Biologics (nyPB)** will be to biotech in the 21st century what Genentech was in the 20th century.

- The science/business team behind **nyPB** has 15 years of experience directing some of the most efficient high-throughput protein production operations in the world and developing related patent-pending technologies. This expertise will enable them to start selling protein products and related custom development services immediately to a variety of industries:
 - Industrial enzymes (\$4 billion per year market worldwide)
 - Biotech reagents (\$33 billion per year market worldwide)
 - Proteins for clinical diagnostics (\$6 billion per year market worldwide)
 - Protein therapeutics (\$100 billion per year market worldwide)
- The unparalleled protein-science knowhow of our founders is backed up by a series of patent-pending technologies:
 - Optimizing gene sequences to maximize protein expression:
 - Patent Cooperation Treaty application US2011/024251: *Methods for altering polypeptide expression and solubility.*
 - Provisional Patent Application US62/045507 (9/3/14): *Methods for altering polypeptide expression.*
 - Patent Cooperation Treaty application US2012/064836: *Transcript-optimized expression enhancement for high-level production of proteins and protein domains.*
 - Patent Cooperation Treaty application US2009/059574: *Independently inducible system of gene expression.*
 - Engineering proteins to enhance crystallization for structure determination:
 - Patent Cooperation Treaty application US2009/059574: *Independently inducible system of gene expression.*
- The cofounders developed these technologies while running academic structural genomics consortia that employed up to 150 scientists at the same time and received ~\$240 million dollars of funding from the US National Institutes of Health since 2001:
 - Prof. Daniel Aalberts, Williams college – *PhD & BA MIT* – Co-inventor of patent-pending gene optimization technology with Dr. Boël and Profs. Hunt/Montelione.
 - Prof. Steven Almo, Albert Einstein College of Medicine – *PhD Harvard, BA MIT* – Director of the New York Structural Genomics research consortium (www.NYSGXRC.org) and the Enzyme Function Initiative (www.EFI.org).
 - Dr. Gregory Boël, Columbia University – *PhD University of Caen, BA University of Paris* – Co-inventor of the patent-pending gene optimization technology with Profs. Aalberts/Hunt/Montelione.
 - Prof. John Hunt, Columbia University – *AB Harvard, PhD Yale*, Co-Director of the crystallography group of the Northeast Structural Genomics Consortium (www.nesg.org) and lead inventor of the patent-pending gene-optimization and crystallization technologies described above.
 - Prof. Gaetano Montelione, Rutgers University – *PhD & BA Cornell, BA MIT*, Overall director of the Northeast Structural Genomics Consortium (www.nesg.org) and co-inventor of the technologies described above.