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IPE-Industrial protein engineering: Accelerated evolution

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Historically, the protein design process has been approached as equivalent to the problem of finding in all of protein space the one best sequence for a single property. For accelerated evolution, the problem to be solved is to identify at least one protein sequence that meets or exceeds the minimum value required for a number of properties. Protein engineered proteins came about through accumulation of point mutations that were not deleterious for any important property. Using the “Super-screen” process, we can determine all those mutations in a matter of weeks for any protein for all important properties. Combining these mutations in the proper way can rapidly produce a protein with all desired properties.

Biography

Frits Goedegebuur is currently working for DuPont Industrial Biosciences (2011) as a Senior Scientist. He is a Member of DuPont's R&D management team and he is a Project Leader of a global protein engineering research project. He has filed ~120 patents, of which ~60 patents have been granted.

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