CRISPR and gene optimization will bring new wave of biotech drugs

If there were no biotechnology, the world would stand still. "Biotechnologically derived drugs dominate therapy with eight of the top ten best-selling drugs are produced using biotech methods," says Prof. Nigel Titchener-Hooker from the University College London.

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Based on huge funding and investments, the world of biotechnology moves quickly forward. New technologies help the industry saving production costs and shorten development times.

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According to Helene Faustrup Kildegaard from Novo Nordisk, traditional technologies like random integration, down-regulation using RNAs, or knockout via mutagenesis are currently replaced by the CRISPR/CAS approach that helps shorten the cell line development from one year to three months. "We need more than CRISPR like genome stability or an optimization of genome editing," says Faustrup Kildegaard.

However, severe challenges are appearing on the scientific horizon. Prof. Huimin Zhao from the University of Illinois showed a fully automatized and dehumanized laboratory where a robot is transferring probes from one machine to the other.

"In the future, we will see fast, automated systems for a fast discovery of new products from known or new sequence information..." says Zhao.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: The end of biotechnology as we know it