Current Agreements

Dealdoc

Licensing agreement for ISPRI and Optimatrix platform for de-risking biologics

Epivax
Chugai Pharmaceutical

Oct 30 2014

Licensing agreement for ISPRI and Optimatrix platform for de-risking biologics

Companies:	Epivax Chugai Pharmaceutical
Announcement date:	Oct 30 2014
Deal value, US$m:	n/d

Details

Announcement date:	Oct 30 2014
Industry sectors:	Bigpharma Biotech Pharmaceutical Research tools
Asset type:	Technology
Therapy areas:	Immunology Discovery tools » High throughput screening (HTS)
Technology types:	Proteomics Screening Software tools
Deal components:	Licensing

Financials

Deal value, US$m:	n/d

Termsheet

Chugai Pharmaceutical signed an agreement with EpiVax to incorporate EpiVax's ISPRI immunogenicity screening and deimmunization technology into Chugai's drug development toolbox.

EpiVax has developed a web-based secure, interactive work environment for immunogenicity screening, the "interactive screening and protein re-engineering website".

ISPRI can be used for high throughput screening of partial and complete sequences of biological (protein therapeutic) candidates.

Demmunization of Functional Therapeutics (DeFT), the approach used by EpiVax to redesign proteins, modifies the parts of the proteins that bind to human antigen presenting cells such as dendritic cells.

DeFT also takes into consideration Tregitopes (T regulatory epitopes), a unique EpiVax discovery that is associated with regulatory T cell induction.

The OptiMatrix tool is used in the optimization process, and T effector epitopes may be removed or Tregitopes may be reintroduced, depending on the protein sequences.

Press Release

Chugai Licenses ISPRI and OptiMatrix Platform from EpiVax for De-Risking Biologics

Chugai Pharmaceutical Co. signed an agreement with Rhode Island-based biotechnology company, EpiVax, Inc., to incorporate EpiVax's ISPRI immunogenicity screening and deimmunization technology into Chugai's drug development toolbox. Chugai is widely regarded as one of the most cutting edge biopharmaceutical companies in Japan, Researchers at Chugai will be utilizing the cloud-based in silico "Interactive Protein Screening and Reengineering Interface" (ISPRI) in conjunction with OptiMatrix, a tool for deimmunizing biologics, to screen and re-engineer therapeutic proteins for potential immunogenicity and deimmunize immune-dominant epitopes, known as clusters.ISPRI 2014

EpiVax, Inc. is a privately-held and internationally recognized company that specializes in immunogenicity screening for protein therapeutics, immunogenicity mitigation and T cell-driven vaccine design, using a suite of proprietary in silico tools. ISPRI is the only screening system that takes into consideration Tregitopes (T regulatory epitopes), a unique EpiVax discovery that is associated with regulatory T cell induction (see website for Tregitope publications).

Dr. Tomoyuki Igawa, group manager of Discovery Research Department, of Chugai said, "Integration of ISPRI into the Chugai's antibody engineering and optimization platform will reduce the immunogenicity risk and increase the likelihood of successful clinical development for important, human life-saving biologics."

"Our unique approach to developing safe and effective protein therapeutics by screening for T effector and T reg epitopes (Tregitopes) is at the core of the ISPRI toolkit," said Anne De Groot, M.D., President and CEO of EpiVax. "We have a demonstrated ability to use our immunoinformatics tools to screen and reengineer protein therapeutics, in federally-funded, peer-reviewed programs (See FVIII, Botulinum toxin, Lysostaphin programs for example) and commercial projects (See partnership with Biotest, AG). We're impressed with the team at Chugai, and their plans to integrate the ISPRI Toolkit with the OptiMatrix Tool into their antibody engineering and optimization development process. We anticipate that Chugai scientists will be able to create a whole range of highly effective "new generation" biologics at a highly accelerated pace".

ISPRI

EpiVax has developed a web-based secure, interactive work environment for immunogenicity screening, the "interactive screening and protein re-engineering website". ISPRI can be used for high throughput screening of partial and complete sequences of biological (protein therapeutic) candidates. The toolkit can be used to identify within each protein sequence potentially immunogenic regions (known as epitope clusters) and to fine map those individual amino acids, which contribute most to the immunogenic potential of the cluster. ISPRI is the only screening system that takes into consideration Tregitopes (T regulatory epitopes), a unique EpiVax discovery that is associated with regulatory T cell induction (see website for Tregitope publications). The output is customized to best fit the needs and preferences of each company. The website is used by six of the eight largest Pharma companies in the world.

DeFT

Demmunization of Functional Therapeutics (DeFT™), the approach used by EpiVax to redesign proteins, modifies the parts of the proteins that bind to human antigen presenting cells such as dendritic cells. DeFT also takes into consideration Tregitopes (T regulatory epitopes), a unique EpiVax discovery that is associated with regulatory T cell induction (see website for Tregitope publications). The OptiMatrix tool is used in the optimization process, and T effector epitopes may be removed or Tregitopes may be reintroduced, depending on the protein sequences.

PreDeFT

Pre-Deimmunization of a Functional Therapeutic Report. Immunogenicity screening can be performed on individual biologic candidates by the expert team at EpiVax, resulting in the production of a comprehensive report that can be included in an IND/BLA package. These reports include detailed information about the protein therapeutics' immunogenic potential along with an expert interpretation of the data with recommendations on the next steps.

Filing Data

Not available.

Contract

Not available.