编号：YY015-20221219001

标题：Diphtheria: Home Office ignored offer of help to manage migrant centre outbreak, say public health leaders

简介：The diphtheria outbreak linked to the Manston migrant processing centre in Kent “could and should have been prevented” but was made “far worse” by the Home Office, public health leaders have said.More than 70 suspected cases of diphtheria have been linked to the centre in recent weeks, and many migrants have been moved to hotels around the country, said a report in the Times.1 People with suspected cases are thought to be in West Yorkshire, London, Greater Manchester, Kent, and the south west and east of England. People were moved after the death of a man who had been held for almost a week at Manston and had contracted diphtheria.

全文链接：https://www.bmj.com/content/379/bmj.o2887

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标题：Model-Informed Drug Development Approaches to Assist New Drug Development in the COVID-19 Pandemic

简介：Leveraging limited clinical and nonclinical data through modeling approaches facilitates new drug development and regulatory decision making amid the coronavirus disease 2019 (COVID-19) pandemic. Model-informed drug development (MIDD) is an essential tool to integrate those data and generate evidence to (i) provide support for effectiveness in repurposed or new compounds to combat COVID-19 and dose selection when clinical data are lacking; (ii) assess efficacy under practical situations such as dose reduction to overcome supply issues or emergence of resistant variant strains; (iii) demonstrate applicability of MIDD for full extrapolation to adolescents and sometimes to young pediatric patients; and (iv) evaluate the appropriateness for prolonging a dosing interval to reduce the frequency of hospital visits during the pandemic. Ongoing research activities of MIDD reflect our continuous effort and commitment in bridging knowledge gaps that leads to the availability of effective treatments through innovation. Case examples are presented to illustrate how MIDD has been used in various stages of drug development and has the potential to inform regulatory decision making.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108356

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标题：Improving antibody drug development using bionanotechnology

简介：Monoclonal antibodies are being used to treat a remarkable breadth of human disorders. Nevertheless, there are several key challenges at the earliest stages of antibody drug development that need to be addressed using simple and widely accessible methods, especially related to generating antibodies against membrane proteins and identifying antibody candidates with drug-like biophysical properties (high solubility and low viscosity). Here we highlight key bionanotechnologies for preparing functional and stable membrane proteins in diverse types of lipoparticles that are being used to improve antibody discovery and engineering efforts. We also highlight key bionanotechnologies for high-throughput and ultra-dilute screening of antibody biophysical properties during antibody discovery and optimization that are being used for identifying antibodies with superior combinations of in vitro (formulation) and in vivo (half-life) properties.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108359

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标题：Quotient adds to drug development platform

简介：Quotient Sciences has integrated drug substance synthesis into its Translational Pharmaceutics platform.The integrated service now combines drug substance,drug product and clinical testing activities within a unified organisation under a single project manager."Our Translational Pharmaceutics platform is now in its 15th year and has accelerated development timelines for more than 500 drug programmes.We remain the only outsourcing partner able to offer innovators the ability to manufacture,release and dose under one organisation.This approach is proven to shave 12 months off timelines and,by adding drug substance synthesis,the process from candidate selection to clinic can be a further accelerated by 2-4 months,"commented Mark Egerton,CEO of Quotient Sciences.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108357

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标题：Phosphoryl prodrugs: characteristics to improve drug development

简介：Phosphoryl prodrugs are key compounds in drug development. Biologically active phosphoryl compounds often have negative charges on the phosphoryl group, and as a result, frequently have poor pharmacokinetic (PK) profiles. The use of lipophilic moieties bonded to the phosphorus (or attached oxygen atoms) masks the negative charge of the phosphoryl group, and cleavage of the lipophilic moieties releases the active molecule. The use of prodrugs to improve the PK of active parent molecules is an essential step in drug development. This review highlights promising trends in terminal elimination half-life, C-max, clearance, oral bioavailability, and cLog P in phosphoryl prodrugs. We focus on specific prodrug families: esters, amidates, and ProTides. We conclude that moderating lipophilicity is a key part of prodrug success. This type of evaluation is important for drug development, regardless of clinical application. It is our hope that this analysis, and future ones like it, will play a significant role in prodrug evolution.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108358

编号：YY015-20221219006

标题：Recent advances in metabolomics analysis for early drug development

简介：The pharmaceutical industry adapted proteomics and other 'omics technologies for drug research early following their initial introduction. Although metabolomics lacked behind in this development, it has now become an accepted and widely applied approach in early drug development. Over the past few decades, metabolomics has evolved from a pure exploratory tool to a more mature and quantitative biochemical technology. Several metabolomics-based platforms are now applied during the early phases of drug discovery. Metabolomics analysis assists in the definition of the physiological response and target engagement (TE) markers as well as elucidation of the mode of action (MoA) of drug candidates under investigation. In this review, we highlight recent examples and novel developments of metabolomics analyses applied during early drug development.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108360