

MIABE standard opens up new opportunities in drug discovery

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An international consortium of pharmaceutical companies, public and commercial data providers and academic groups has agreed on a new standard for describing the effect of a compound on a biological entity. Published in *Nature Reviews Drug Discovery*, the Minimum Information about a Bioactive Entity (MIABE) standard makes it possible to enhance the interchange of public data on drug discovery success and attrition.

Every day, pharma, biotech and academic groups generate enormous quantities of data about the biological properties of molecules such as drugs, pesticides and food additives. However, not all useful data are reported. This can lead to fruitless repetition of work, wasting time, energy and resources.

A deeper understanding of what makes successful drugs work can be gained by putting together data from a large number of drug discovery programmes. But to analyse these data properly, they need to be comparable. At present, crucial data are often missing from the published literature or are reported in an unstructured format.

MIABE reporting guidelines will allow the scientific community to capture more information about [bioactive compounds](#), and to use that information for better design.

"We hope that MIABE will make possible an order-of-magnitude increase in the amount of data available for analysis," explained Dr John Overington, who heads the ChEMBL group at the European Molecular

Biology Laboratory's European Bioinformatics Institute (EMBL-EBI).

"Experience with other standards has shown that as more groups come to adopt them, the amount of useable data available to researchers snowballs."

"The increased availability of standards-compliant data will help companies to streamline their decision-making processes," said Dr Dominic Clark, who coordinates the Industry Programme at EMBL-EBI. "Industry is becoming increasingly reliant on data in the public domain. Having a set of principles and standards will make data integration simpler and help to control costs."

"This new standard will bring us a wealth of well curated data about the biological targets of bioactive molecules – a very timely initiative for the EMBL-EBI's current expansion in the area of metabolism and metabolomics," added Dr Christoph Steinbeck, who heads the cheminformatics team at EMBL-EBI.

MIABE is the result of a precompetitive project that originated in the EMBL-EBI Industry Programme. The ideas were originally developed in a series of [drug-discovery](#) research workshops, and the outcome will benefit industrial and academic communities alike.

More information: Orchard, S., Al-Lazikani, B., Bryant, S., et al. (2011) Minimum Information About a Bioactive Entity (MIABE). *Nat Rev Drug Discov* 10, 661-669. Published online 31 August. [doi:10.1038/nrd3503](https://doi.org/10.1038/nrd3503)

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