Mutagenicity prediction using *in silico* Methods: Gigabyte-size Petri dishes

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The use of predictive toxicology methodologies presents the advantages of avoiding the use of animal tests and providing results in a faster way. Among the techniques employed, *in silico* toxicology has experimented a notable surge in interest, mainly because the increase in computational power has allowed the use of datasets and algorithms capable of yielding predictions as valid as a traditional *in vitro* assay. In this lecture, an overview on the predictive toxicology methods will be given, comparing *in vitro* and *in silico* approaches and showing how they fit within ICH M7 regulatory guidelines,[1] with special emphasis on *in silico* methods and how Lhasa solutions[2,3] can be used to predict mutagenicity within this framework.