

Einladung zum 76. ZEBET-Seminar

Sisyphus Lives: Pfizer's Efforts to Tweak and Improve the Embryonic Stem Cell Test (EST)

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Since 2002, the Developmental and Reproductive Toxicology group at Pfizer's Groton site has been working with the embryonic stem cell test (EST), applying it to the pharmaceutical environment. This has included adding a number of known-*in-vivo*-negatives, as well as running as many marketed pharmaceuticals as possible, whose *in vivo* activity could be reasonably well decided. We have been measuring gene expression for several years, and when we pulled a statistician into the project, he identified which genes were useful and which were not. A final component that has been added is the expression level of a micro RNA which is proving central in the switch from stem cell to differentiated cell. Our final random forest model incorporates gene expression as well as the slope of the dose-response curves, and has nearly a 90 % predictivity for both negative and positive compounds using > 50 compounds. We are currently testing it against 8 new compounds that the model has not seen before.

TERMIN: Freitag, 4. Juni 2010, 10:30 Uhr

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