Value of Residence Time in Drug Discovery

DRUG CONCENTRATION DECREASES OVER TIME IN-VIVO\(^1,2,3\)

MANY SUCCESSFUL DRUGS HAVE LONG RESIDENCE TIME\(^1,2,3\)

DIRECT CORRELATION BETWEEN RESIDENCE TIME AND IN-VIVO EFFICACY\(^4\)

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**Crucial factor for drug efficacy in-vivo** is not apparent affinity, but rather “residence time”

Drive compound optimization by *in-vitro* measurement of Kd and residence time\(^1\)

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2. David C Swinney (2009), The role of binding kinetics in therapeutically useful drug action, Current Opinion in Drug Discovery & Development 12, 31
4. Lu & Tonge (2010), Drug–target residence time: critical information for lead optimization, Current Opinion in Chemical Biology 14, 467