Pathway of drug development

BIOCHEMICAL RESEARCH		DRUG	MARKETING			
DRUG DISCOVERY	PRECLINICAL DEVELOPMENT	PHASE I	CLINICAL TESTING	S PHASE III	REGULATORY APPROVAL	PHASE IV
 Screening Drug design Synthesis 	 Efficacy Toxicity Pharmacology Formulation 	 Healthy volunteers Tolerability Pharmaco- dynamics & kinetics Adverse effects 	 Placebo controlled Proof of concept Dose regimen Bioavailability Therapeutic window 	 Large pivotal trials Proof of efficacy Safety Drug interactions 	Registration review to obtain marketing authorization	 Pharmacovigilance/ Post marketing surveillance Drug interactions Dose optimisation Additional indications
Compounds > 100'000	Compounds 10	Compounds 5 – 1			Compounds 1	Compounds 0 – 1
3 – many years	2 – 3 years		5 – 8 years		18 months	Lifecycle

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