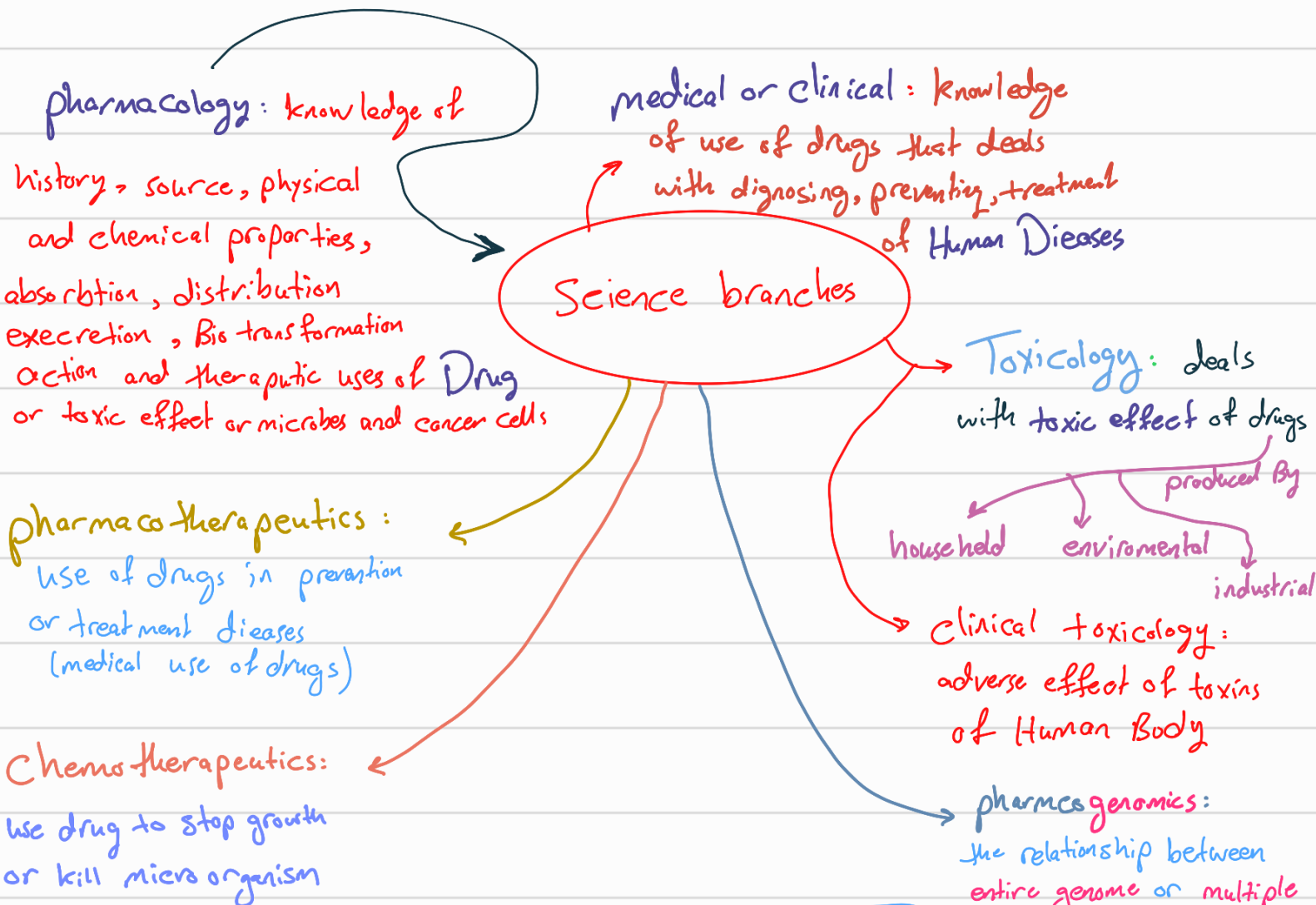


Drug: chemical that affect any living process.

↓
they modified functions and never creat functions



* **Some Definitions:**

the result of adaptation which is decrease in responsiveness

→ rapid (depend on receptor adaptation)

↳ **Tachyphylaxis**

→ take long time → **Tolerance** (affecting gene transcription)

pharmacogenetics: as previous one but in one gene

Pharmacy: science of the producing drugs (ساینس دارو)

→ **prescription:** writtin direction (instructions) to preparing drug

* **therapeutic effect:** primary effect that the drug is prescribed (اثر اصلی دارو)

UNWANTED effects of drugs

- adverse effect: unwanted effect during therapy
- Drug Toxicity: Harm full effect caused By overdose
- Drug-Drug interaction: when administration of one drug affect another drug and remember when any two drugs have the same transporter it will affect the bound and free shape of the second drug تأثير الدواء على الدواء الآخر

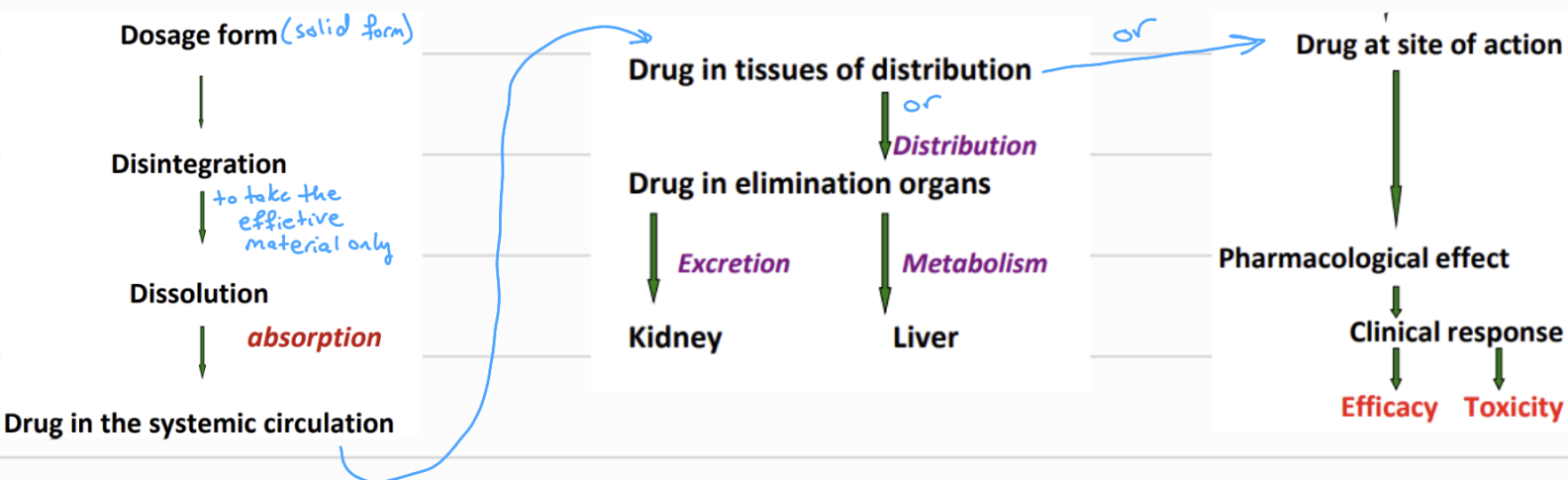
* Some definition exist largely in Hospitals

	miss use	Abuse
mistake in	dose, duration frequency and invalid indication	Continuity or periodically
		exist in NS drugs

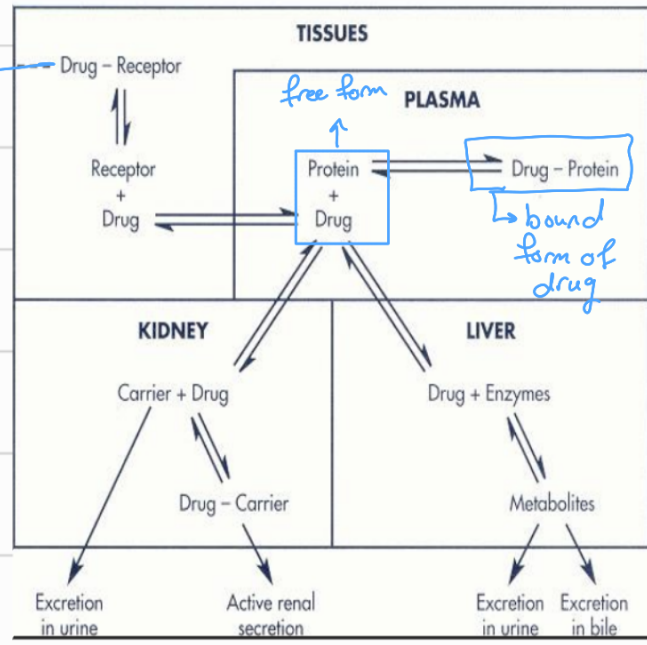
* Pharmacodynamics: is what the drug does to the body as Biochemically and physiology as effect on receptors, adverse effect

* Pharmacokinetics: what the body does to drug as absorption, distribution,

- * Drug Story after taking it → ① absorption from intestine to circulation
- ② distribution by the blood to all Body parts (tissues)
- ③ Bio transforming (this word indicates of metabolism) By enzymes
- ④ Excretions: to get rid out of it outside the Body



Clinical Response ←



Drug Source

Natural source

Plant
 ↓
 include Alkaloids
 Compounds contain Nitrogen group so give Alkaline in aqueous solution As Morphine, Cocaine, Atropine, Quinine

microbes:
 which is AntiBiotechs isolated from microorganism as penicillium and Streptomycin

(راح تنبسطوا بهاي الأسماء)
 بجايزة ال Antibiotechs 🤔

Synthetic drugs:

* Synthesis new compound as Aspirin, barbiturates and local Anesthetics

↳ was the first

* modified naturally:

Semi synthetic derivatives

يفين الأحدث طبيعى بن تعديل

As morphine derivative Oxycodone

Animal tissues:

we used to extract hormones as growth hormone,

insulin and thyroid hormone but now we can

synthesis it by recombinant DNA (ممكن يجي سؤال بالامتحان)

😊 ربح مادة الموليكيولار

شو نوعه؟ أتوقعه الجواب

Semi synthetic

وركز على كلمة أتوقع