EKOSISTEM RISET BIOMEDIK DAN FARMASI KLINIK MENGHILIRKAN KUALITAS LAYANAN DAN KAPASITAS INDUSTRI

Universitas Airlangga
Excellence with Morality

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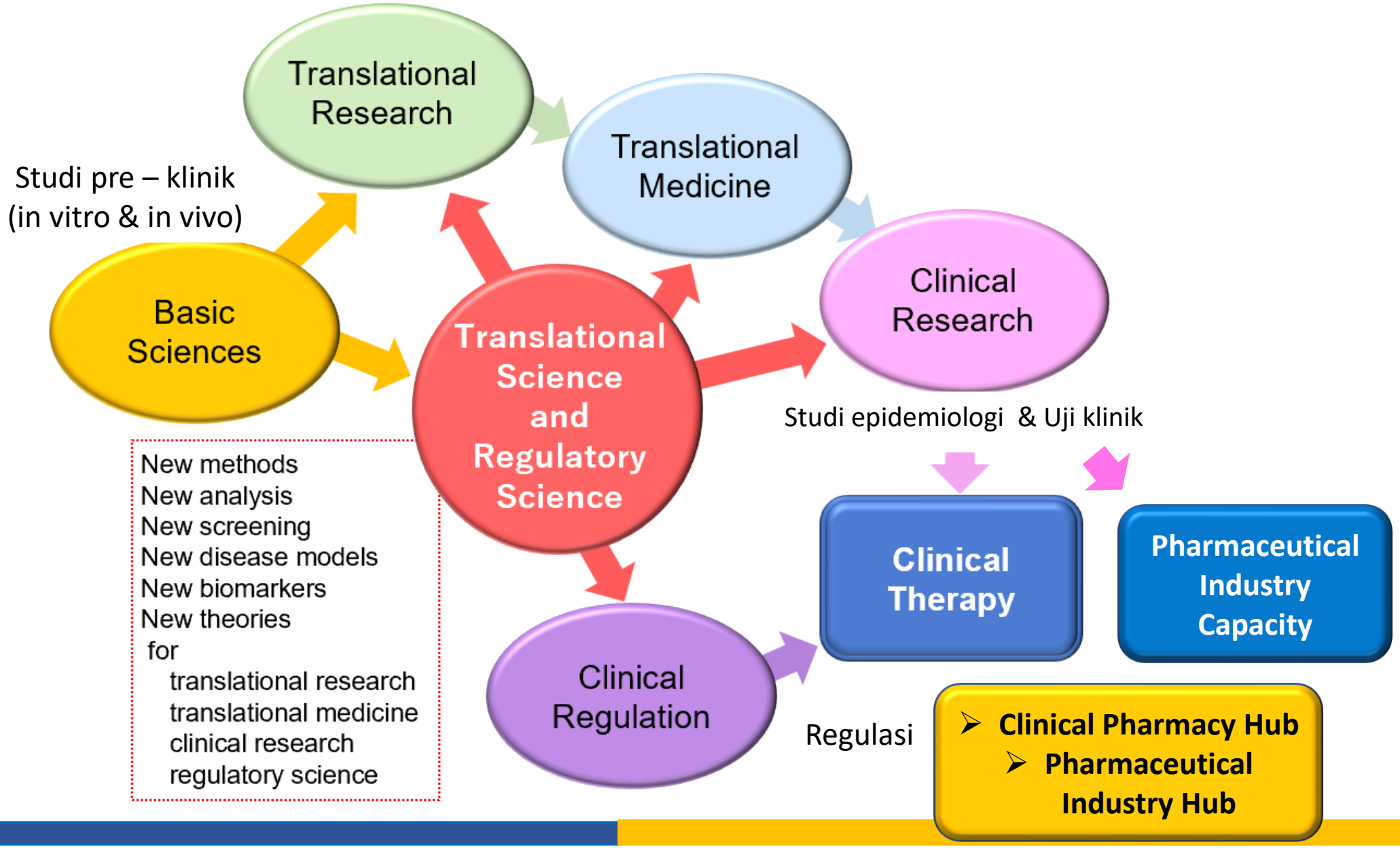
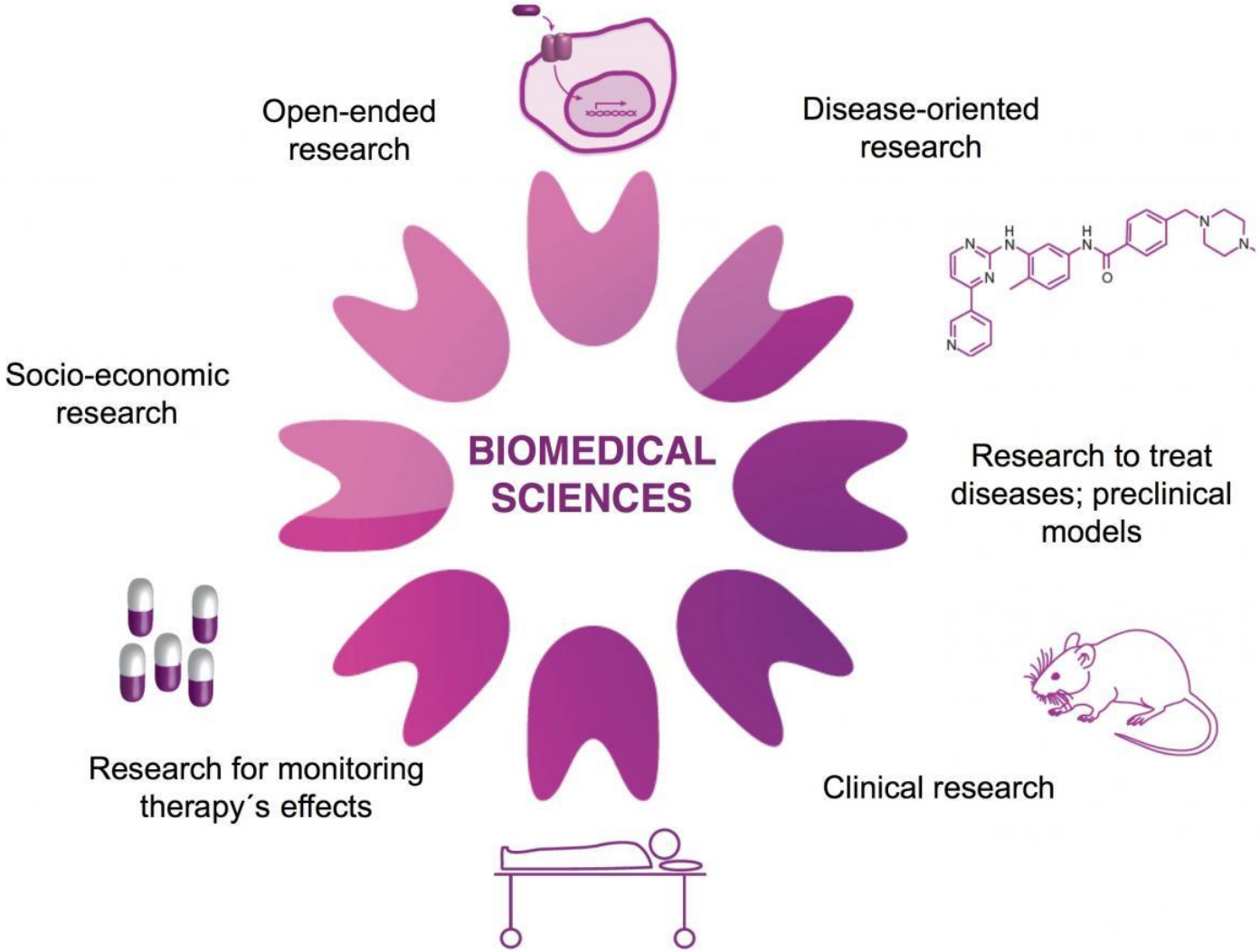
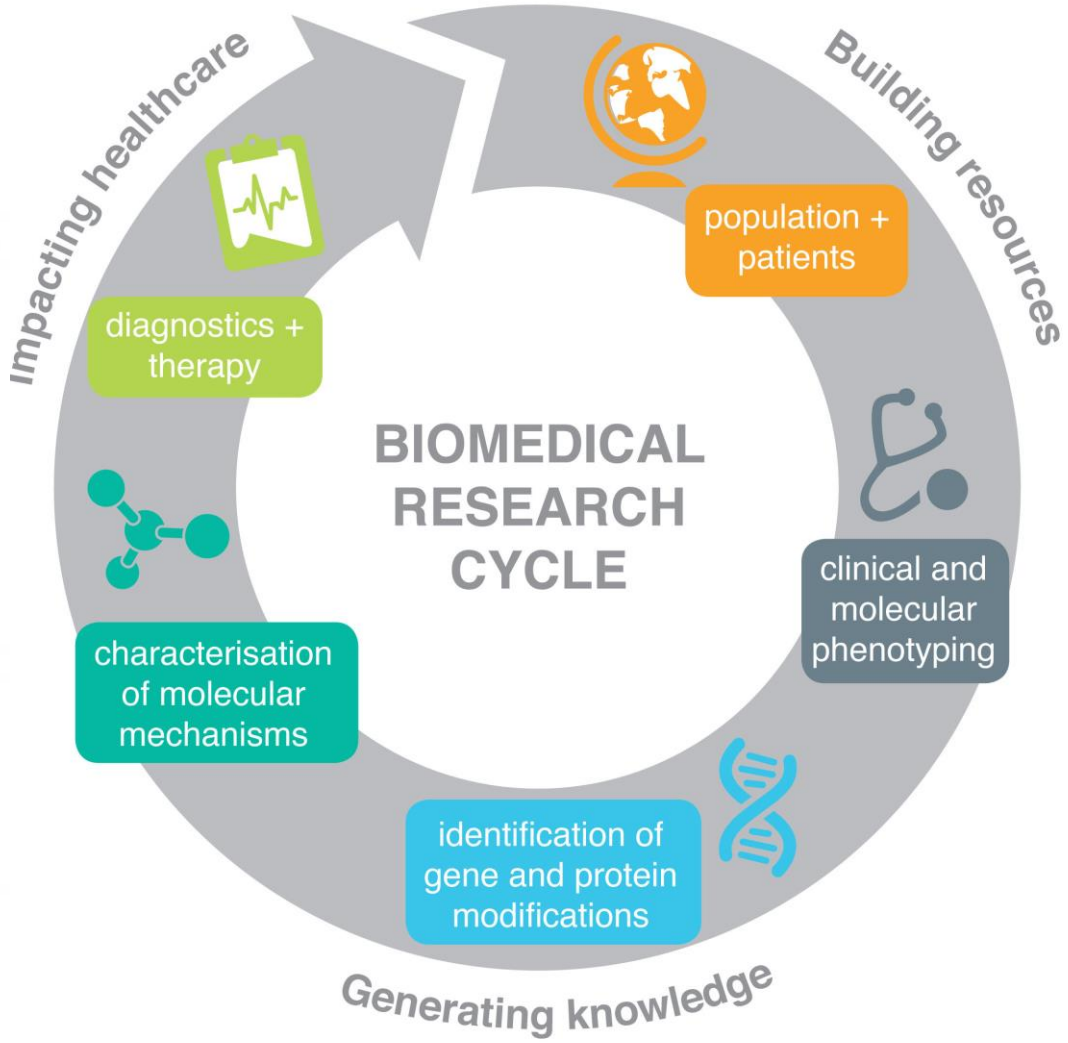
PENELITIAN BIOMEDIK DAN FARMASI KLINIK

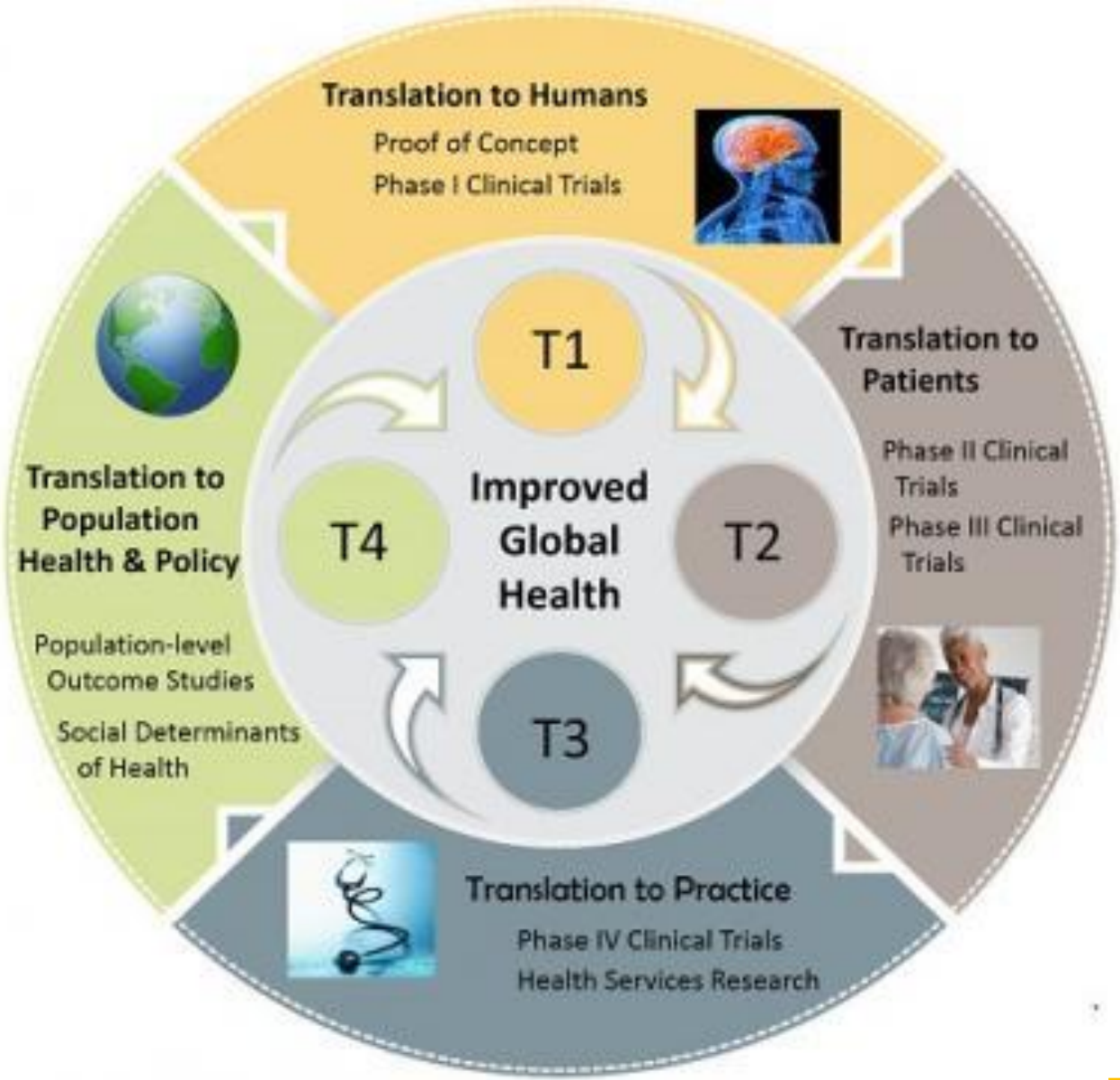


PENELITIAN BIOMEDIK FARMASI





PENELITIAN TRANSLASIONAL



T0: Penetapan senyawa utama, molecular target dan mekanisme kerja (Basic Research)

T1: Metode baru dalam evaluasi dan validasinya serta uji coba pada manusia (sehat)

T2: Pengujian efektivitas dan resiko suatu pengobatan atau tindakan

T3: Pengujian keamanan pada pasien

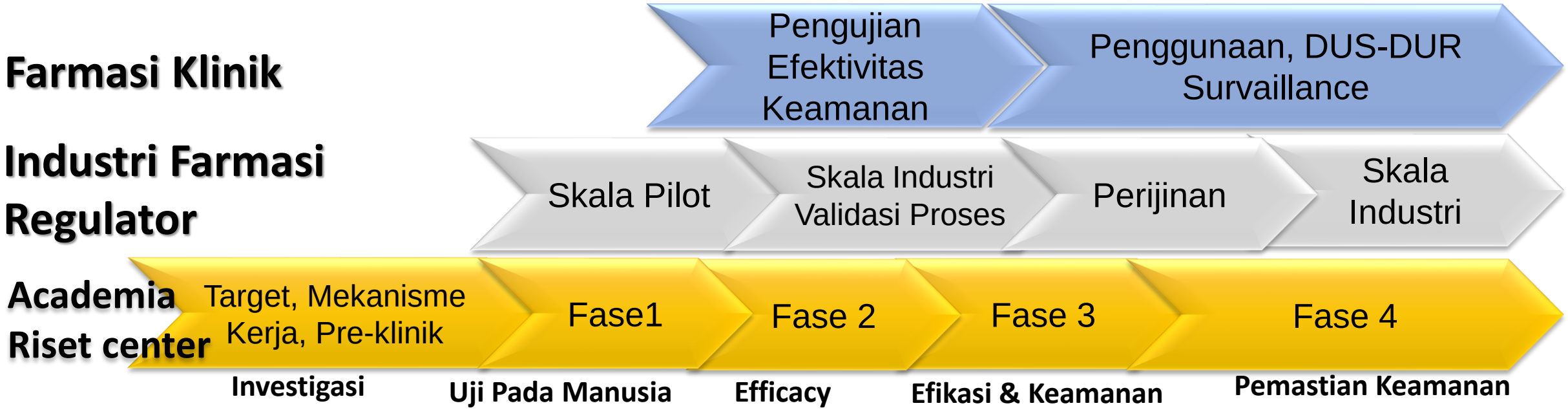
T4: Implementasi penggunaan temuan pada masyarakat

PENELITIAN FARMASI KLINIK

Phase I	Phase II	Phase III	Phase IV
20–80 participants	**100–300** participants	**1,000–3,000** participants	**Thousands** of participants
Up to **several** months	Up to **two** years	**One–four** years	**One** year +
Investigates the safety profile of the drug and aims to identify a safe dose that can be used in humans	Investigates the safety of the drug at the dose selected for use in humans and looks for signs of efficacy	Investigates both safety and efficacy of the selected dose, often comparing against standard treatment	Investigates long-term effectiveness, benefits and cost effectiveness of treatment. Phase IV trials are conducted once a medicine has been approved for use and is on the market

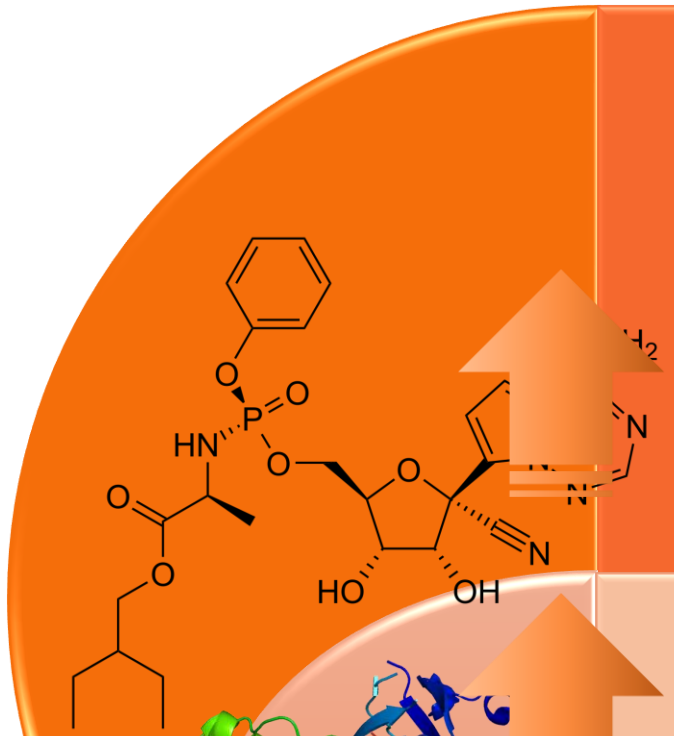
PENGEMBANGAN EKOSISTEM RISET KEFARMASIAN

(Inovasi – Teknologi – Network)



Pusat Riset | Teaching Industry | Industrial Hub | Science Techno Park

IMPLEMENTASI 1: PENGEMBANGAN OBAT COVID-19



Uji Pre-klinik

- Invitro pada sel kultur
  - Daya hambat
  - Toksisitas sel host
  - Uji tantang
- In vivo pada hewan
  - Efektivitas
  - Toksisitas (akut, sub,
  - kronik)

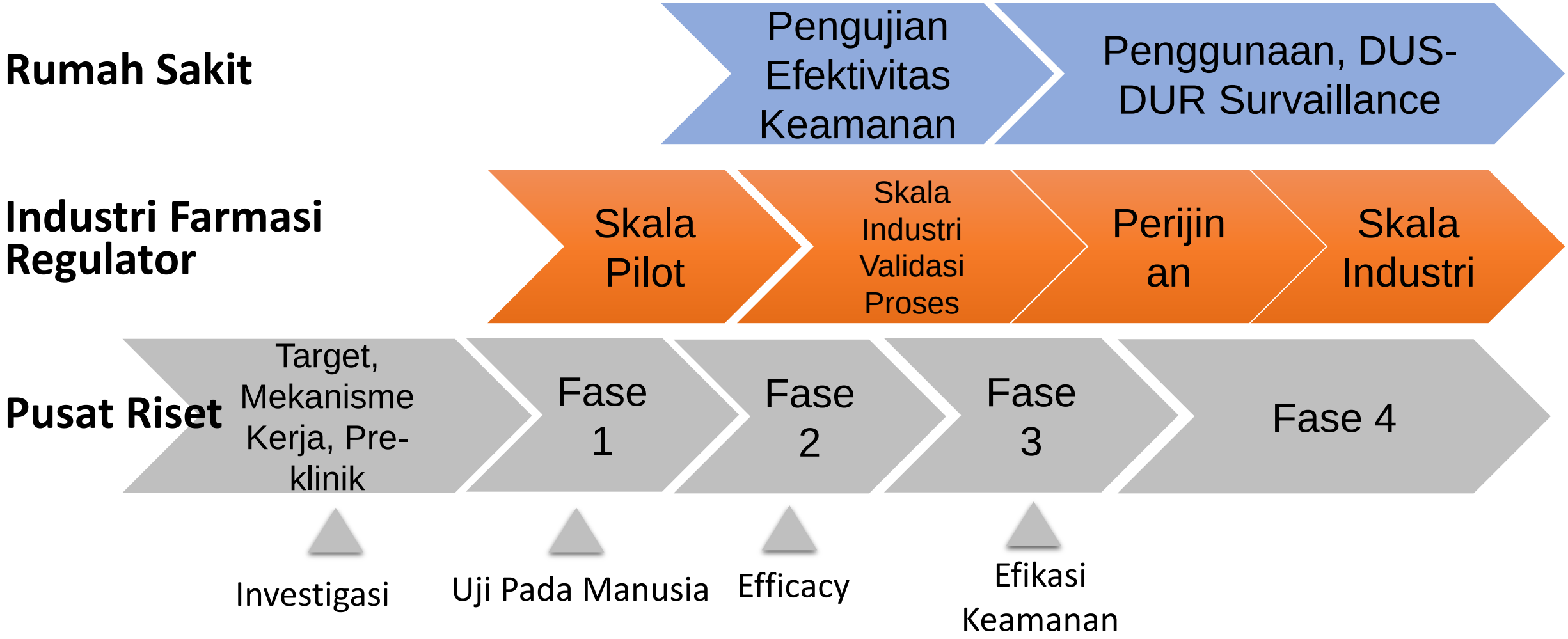
Sintesis

- Purity
- Impurity

Desain

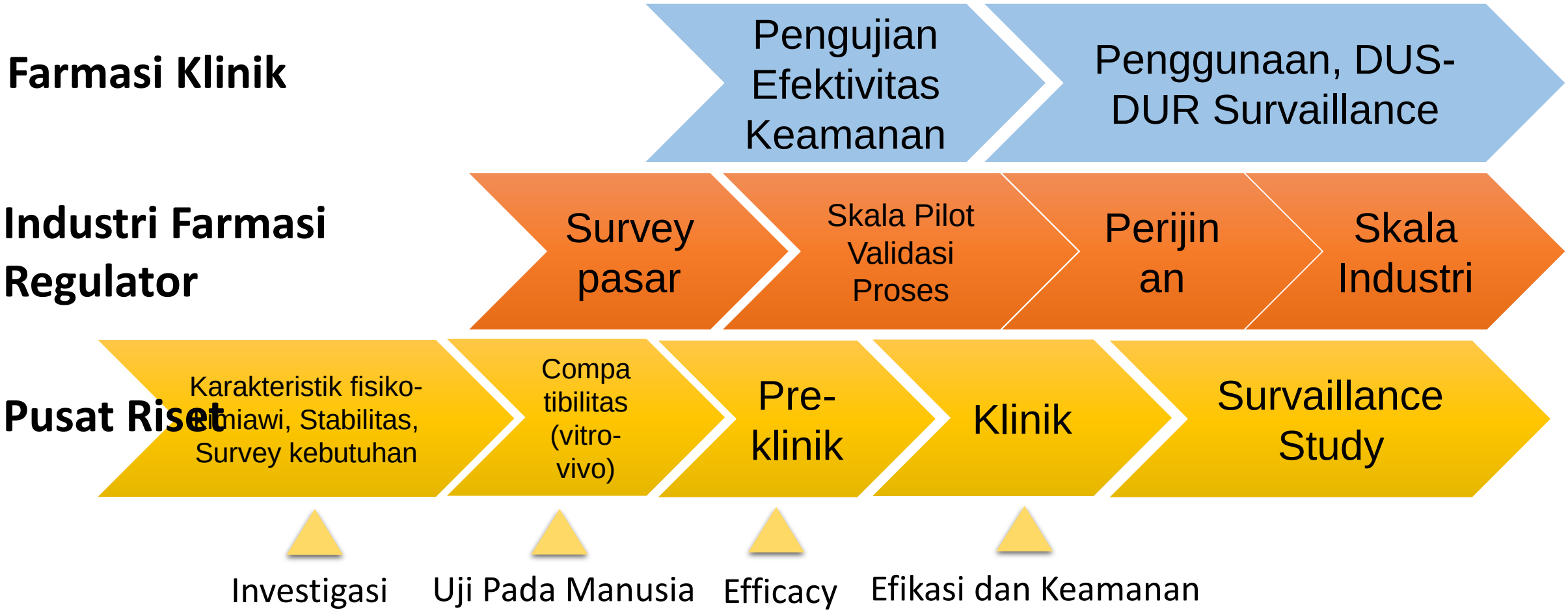
- In silico
- Mechanism kerja obat
- Target kerja
- Identifikasi dan elusidasi

IMPLEMENTASI 1: PENGEMBANGAN OBAT COVID-19



Modifikasi dari Lurie et al, Developing Covid-19 Vaccines at Pandemic Speed, NEJM 2020

IMPLEMENTASI 2:
PENGEMBANGAN BOVINE HYDROXYAPATITE



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Terima Kasih