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สหาย



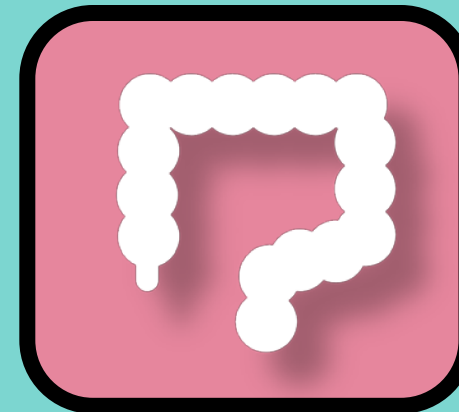
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โรงเรียนแพทย์รามาธิบดี สถาบันการแพทย์จักรีนฤเบดินทร์
คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

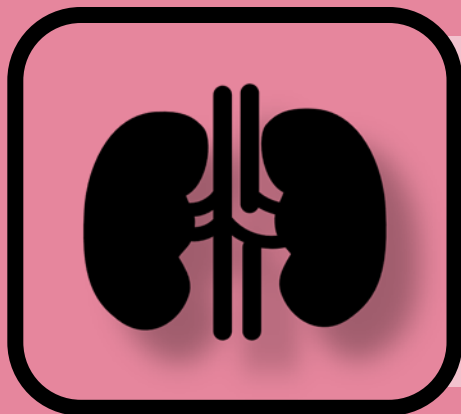


Drug development of
Bioactive Natural Compounds for
Polycystic Kidney Disease

ncRNA-based Therapeutics for
ER stress-mediated Inflammation in
Diabetic Nephropathy



Establishment of
Human Enteroids/Colonoids
for **Gastrointestinal-related Diseases**

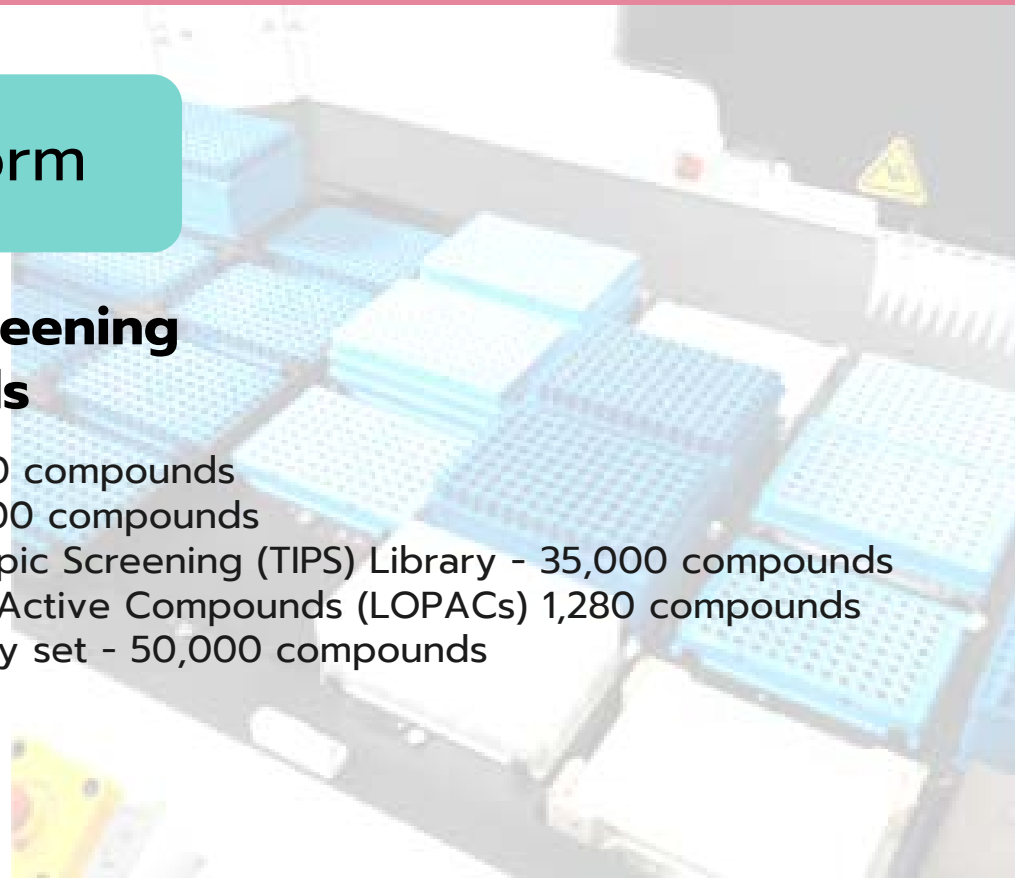


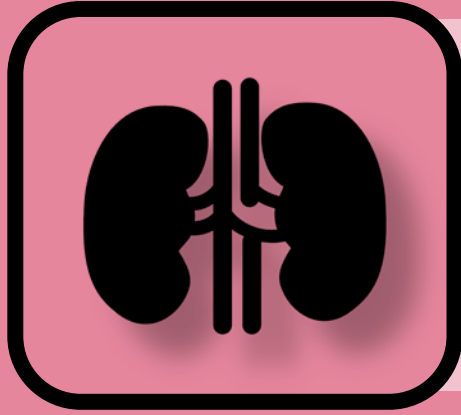
Drug development of Bioactive Natural Compounds for **Polycystic Kidney Disease**

Chemical Library Platform

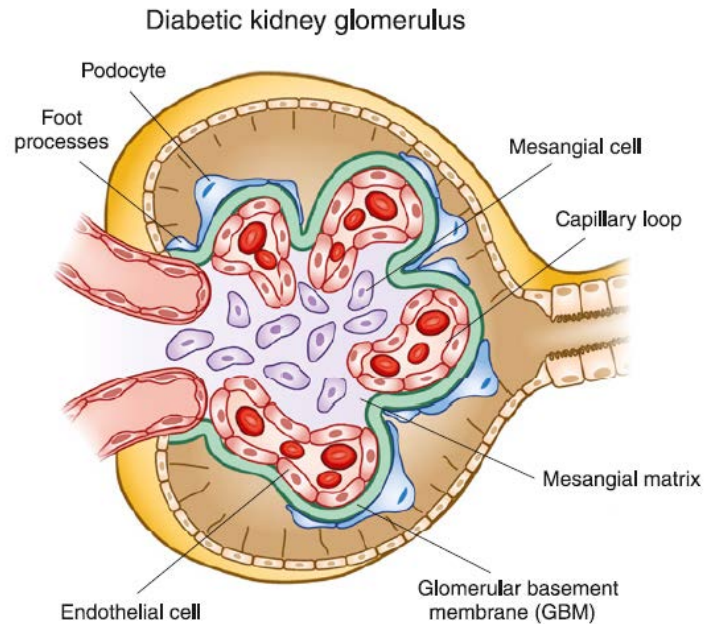
High-throughput screening > 80,000 compounds

- Natural-based Library - 4,000 compounds
- Pure Natural Compounds - 200 compounds
- Target Identification Phenotypic Screening (TIPS) Library - 35,000 compounds
- Library of Pharmacologically Active Compounds (LOPACs) 1,280 compounds
- Other representative diversity set - 50,000 compounds





ncRNA-based Therapeutics for ER stress-mediated Inflammation in **Diabetic Nephropathy**

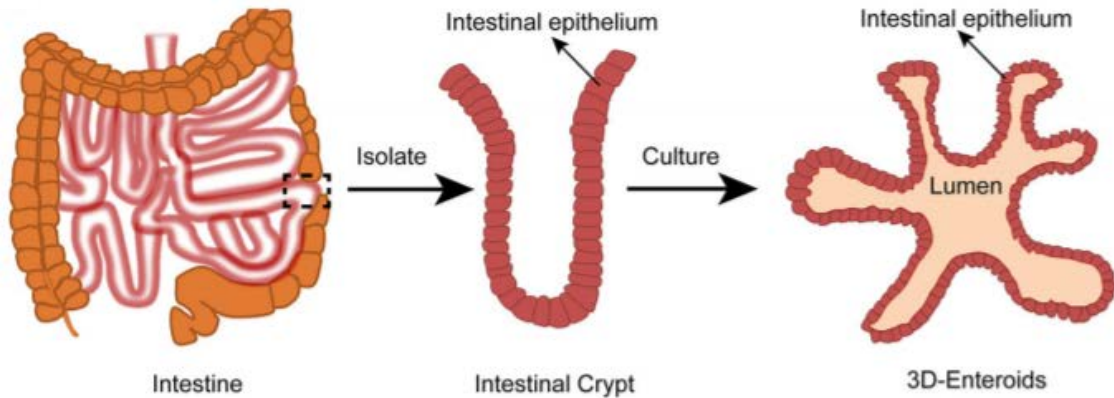


Diabetic Nephropathy

- A common microvascular complication of diabetes mellitus
- Increased albuminuria and decline renal functions
- Low-grade inflammation → Fibrosis
- AGE/RAGE/Nox-mediated ER stress*
- ncRNA-based therapeutics*



Establishment of **Human Enteroids/Colonoids** for **Gastrointestinal-related Diseases**



Enteroids/Colonoids

- 3D culture models
- Intestinal barrier function
- Electrophysiology
- Glucose absorption
- GLP-1 secretion

Ref: Yin Y & Zhou D. *Front Cell Infect Microbiol.* 8:102. (2013).

How does gut feel

