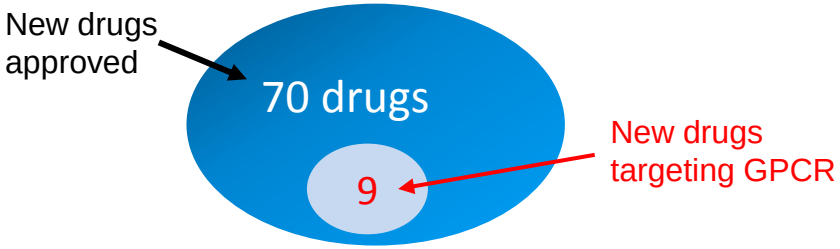
Booth No.
JHVS V-04

JAPAN ジャパン・ヘルスケアベンチャー・サミット HEALTHCARE VENTURE SUMMIT 2018

Company
LiberoThera Co., Ltd.

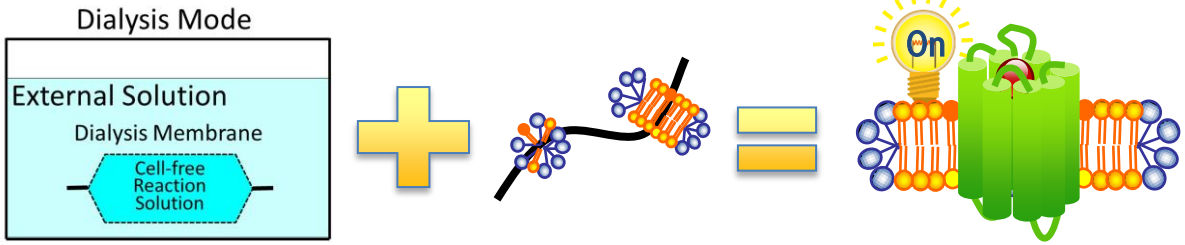
Presenter
Iwao Nozawa

- **GPCRs as drug discovery targets: 12% of new drugs approved by USFDA in 2014**



- **GPCRs have been recognized as difficult targets for drug discovery:**
  - difficult to synthesize *in vitro*
  - difficult to take out from cell membrane without loosing natural structures and functions
- **Complexity of GPCR forced-expressing cell screening systems:**
  - Cross-talk & feed-back
  - Other membrane proteins

- **"Cell-free membrane protein synthesis technology" shall provide GPCRs on lipid bilayer which can be used as drug discovery tools and drug targets**



- antigens for mAb production
- targets for peptide screening
- baits for aptamer selection

etc.

- **Succeeded in preparation of 296 GPCRs using "Cell-free membrane protein synthesis system"**

JST START Program in 2017
"Acceleration of novel drug development using cell-free membrane protein synthesis technology and non-canonical amino acid incorporation technology".
Dr. Shigeyuki Yokoyama, Riken Research Institute

GPCR	synthesized
Class A	270
Class B	26
Class C	
TOTAL	296

i. LiberoThera has started several drug discovery programs on GPCRs synthesized by "Cell-free membrane protein synthesis system"
ii. mAbs against 4 GPCRs have been obtained (immunized mouse with GPCRs on lipid bilayer)

- **LiberoThera is looking for drug discovery partners which have drug discovery technologies & platforms complementary to our technologies.**

We shall change the world of GPCR drug discovery!