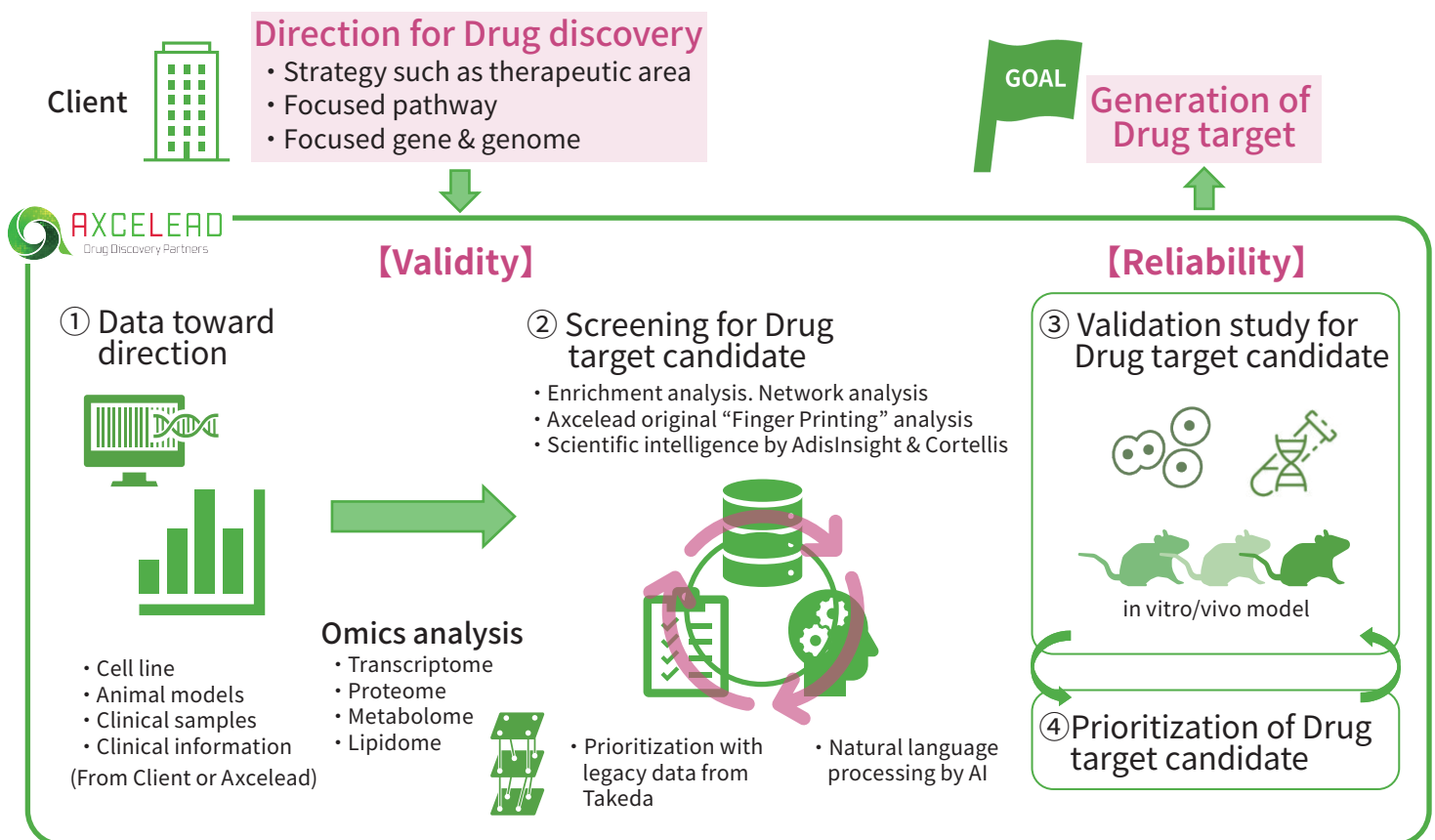


## Integrated Powerful Target Discovery Services

Axcelead provides one-stop/ integrated solutions to identify and validate better targets by flexible and efficient approaches

- > Over 20 years experience on target identification & validation
- > Project launch in over 10 therapeutic area and more than 700 HTS for variety of targets



### Omics Analysis

Transcriptome

Proteome

Metabolome

Lipidome

Our high-end platforms assess about 600 metabolites, 30 lipid classes, 7000 proteins and 15000 phosphorylation sites from a single biological sample. This approach enable a promising discovery of drug target candidate with time- and cost-saving compared with the traditional narrow-target approach.

### RNA Sequence

Bulk RNA-seq

Single cell RNA-seq

Single nucleus RNA-seq

Gene expression profiling from "Full transcriptome methods" to "Monitoring of single genes"

### Other Platform

Visium

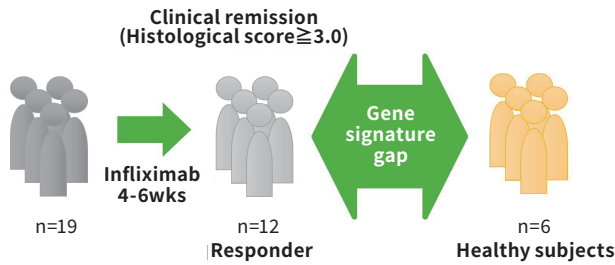
Spatial gene expression using Transcriptomic and Pathologic data

HT lipidome

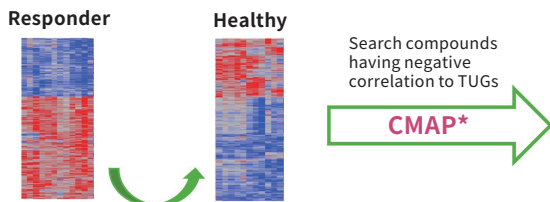
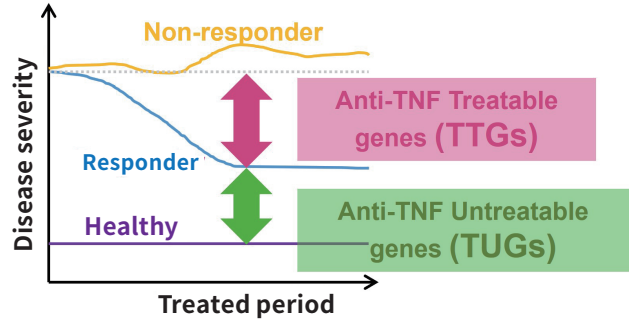
High-throughput lipidomic study using Dr.Bamba method

# Case: MEK inhibitor for IBD

## > Hypothesis generation using gene signature and BI pursuing molecular level remission



**GSE16879**: Clinical and gene expression information of IBD patients treated with Infliximab



Reverse to healthy condition

\*: Signature-based screening of candidate chemicals using the Connectivity Map

Top 10 compounds of Gene Expression Correlation Analysis of TUGs

Rank	Compound	Classification
1	Example C25	Raf/VEGFR inhibitor
2	Example 114	EGFR inhibitor
3	Compound 2cb	HER2/EGFR inhibitor
4	Compound 5	Raf/VEGFR inhibitor
5	PD0325901	MEK inhibitor
6	Urapidil	$\alpha$ 1-adrenoceptor antagonist
7	Gemcitabine60	Ribonucleotide reductase inhibitor
8	Example 27	MEK inhibitor
9	PD0325901	MEK inhibitor
10	Example 74	EGFR inhibitor

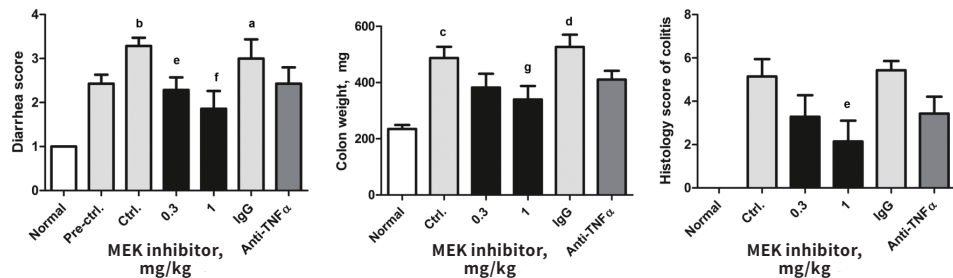
Raf/MEK pathway was highlighted

Inflamm Bowel Dis. 2018;24(6): 1251-65

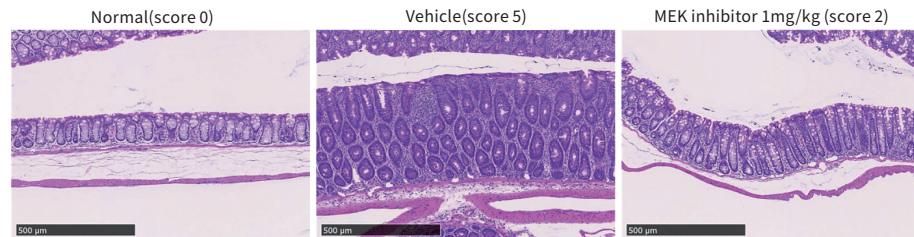
## > Validation using animal model

### Effects of MEK inhibitor in mouse T-cell transfer model

Clinical score



Pathological score



Inflamm Bowel Dis. 2018;24(6): 1251-65

**Axcelead enables the best drug discovery start with one-stop solutions!**

Target-based drug discovery



High-throughput screening (HTS)

**Axcelead Drug Discovery Partners, Inc.**

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