Target/Biomarker Validation
from Omics Data

The Truth is Public: For Early and Mid-stage Biotech

Omics Modality	Public Data Sources	Example: #Published studies in UC*	Example: #Published studies in CD**
Transcriptomics	• ArrayExpress • GEO datasets • BioGPS	≈490	≈450
Metabolomics	• MetaboLights • Metabolomics Workbench • GNPS	≈30	≈20
Proteomics	• EMBL-EBI • UCSD-MassIVE • ProteomeCentral	≈270	≈230
Genomics	GWAS Central • GWAS Catalog • GEO datasets • dbGap	≈890	≈1,470
Methylation	• ArrayExpress search • GEO datasets	≈500	≈340

▶ Across transcriptomics, metabolomics, proteomics, genomics, and epigenetics, there are a vast range of omics data sources and accompanying public studies in each disease area

▶ This public data presents a rich source for target and biomarker validation, especially for early to mid-stage biotech seeking their next funding round, additional evidence, or a quick go/no-go for a proposed target or biomarker

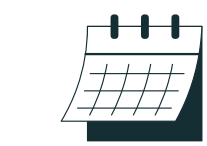▶ Strand has been helping early to mid stage biotech validate targets and biomarkers from public omics data sources

* Ulcerative colitis ** Crohn's disease

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WE SOLVE PROBLEMS IN GENOMICS.

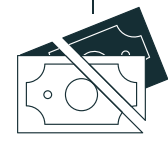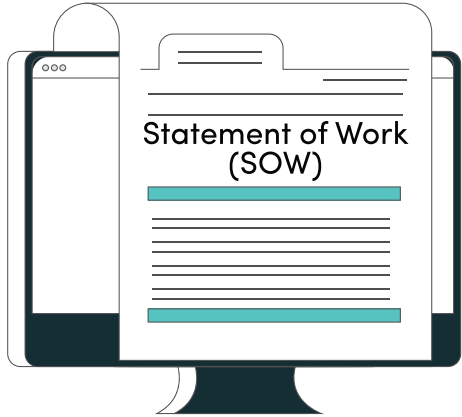**1** Our science team works with you to outline a statement of work (SOW) that:

Describes the data that's publicly available in the disease of interest and across omics modalities, as well as relevant blood biochemistry data available and other clinical phenotypes of interest

Estimates cost & timelines for a go/no-go decision

Takes 1-2 weeks to complete

Is at zero cost to you

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Statement of Work (SOW)

2 If you choose to proceed with the SOW, Strand executes on the work

3 You receive a report with a summary of all publicly archived omics results in the space, key findings, as well as evidence specifically towards go/no-go decisions within the timeline listed
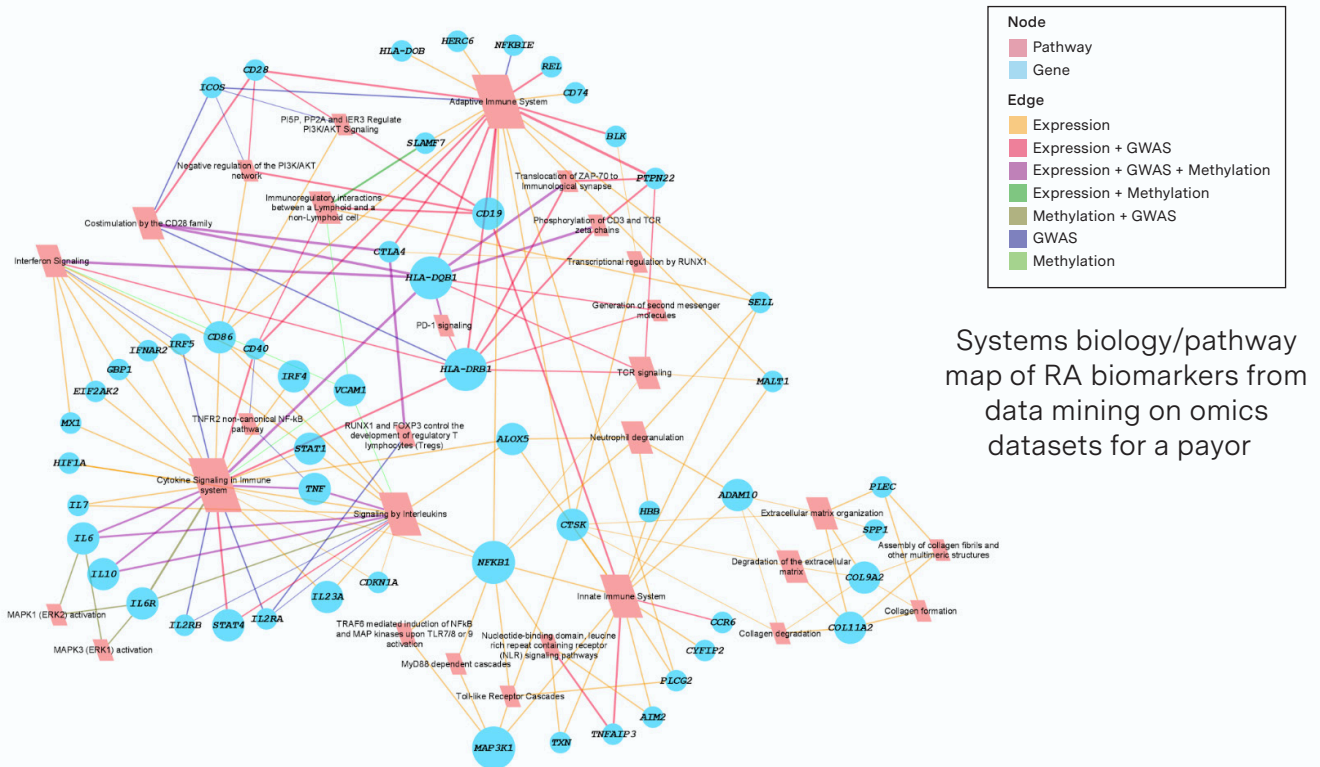
![strand logo] **strand**
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Recent stories:

We worked with a payor to validate early detection diagnostic biomarkers for Rheumatoid Arthritis from public omics data and stratify such biomarkers by stage

Value:

- The payor uses this data to inform clinical practice, given that earlier detection in RA is correlated with massively better patient outcomes and thereby lower payor spend.

Systems biology/pathway map of RA biomarkers from data mining on omics datasets for a payor

We worked with an early stage biotech to validate the presence of a molecular biomarker in a certain autoimmune indication

Value:

- The summary of public datasets by omics modality in the SOW allowed this biotech to rule out purchase of a ≈$150k p.a. license fee to a database, hence saving them budget before their forthcoming funding round

- The project helped stratify this biomarker by the stage of the disease, as well as other phenotypes of interest, and correlated information across different omics modalities

- Strand Life Sciences works with marquee genetics diagnostics, sequencing instrument, pharma and biotech companies to accelerate bioinformatics and software development

See our **website** for recent Case Studies and to get in touch!