



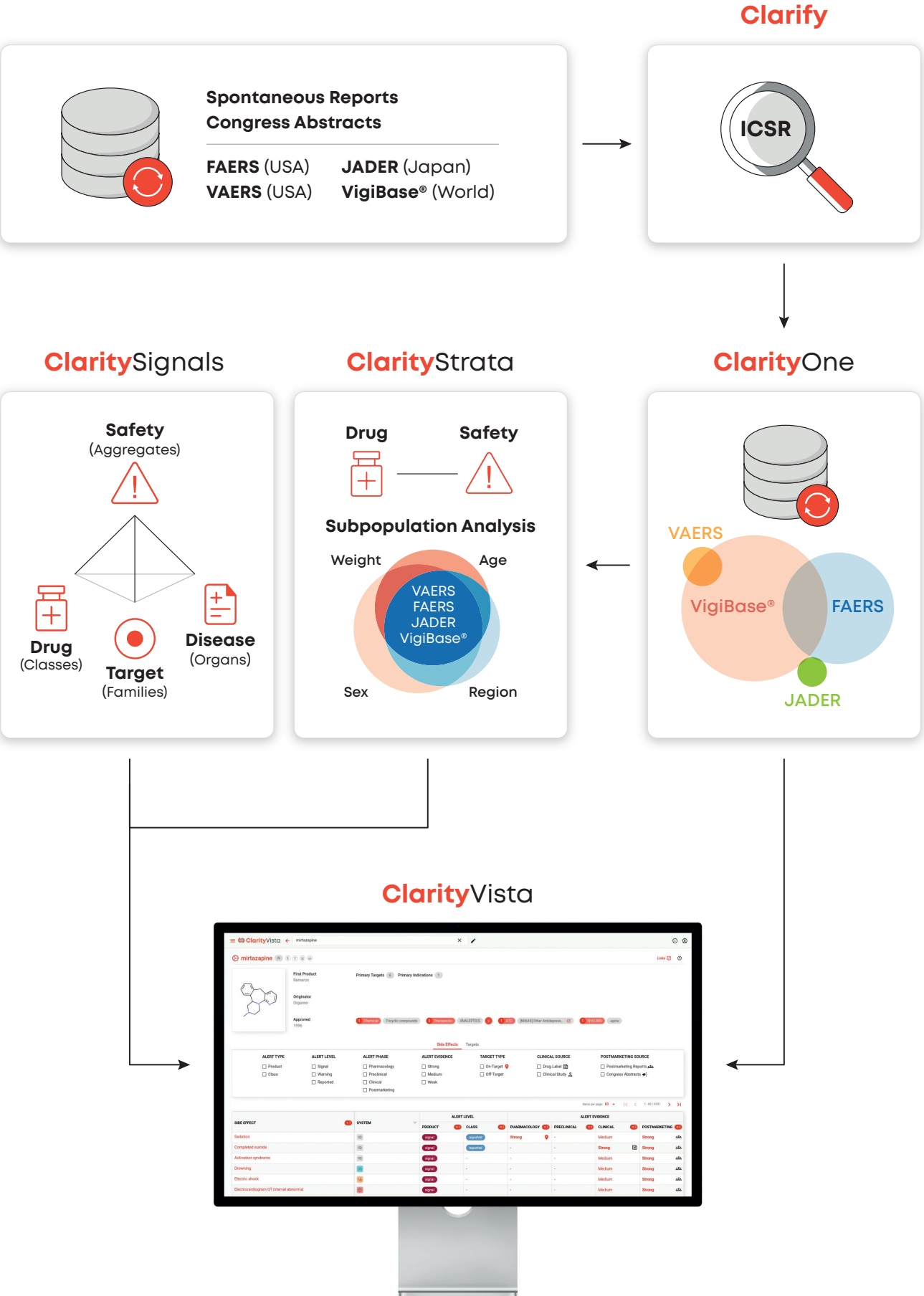
# ClaritySuite

Collecting and learning from all safety-relevant sources **to detect and analyse drug-safety and target-safety associations.**





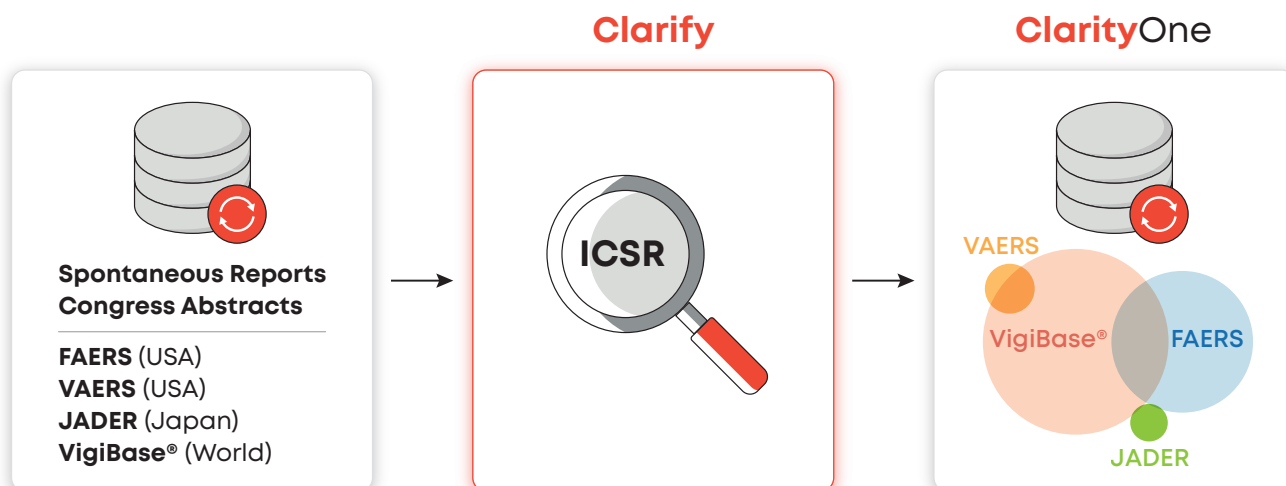
A complete collection of data, signals and analytics products for exploring drug-safety and target-safety associations and for analysing safety signals.



# Clarify: Safety Data System



A proprietary safety data management system to assist a team of manual curators to review safety terms and to facilitate the product owner to produce Beta versions.



## Chemotargets' proprietary Safety Data Management System



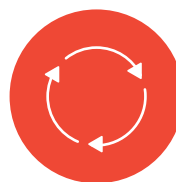
### 01. Extraction

Data is extracted from several sources, both structured and plain text.



### 02. Curation

The terms that can't be automatically mapped are manually assigned to a standard term or a newly created custom term.



### 03. Review

The manually curated terms are reviewed by experts before being accepted.



### 04. Authority construct

A thesaurus is created with the corpus of all mapped terms.

#### Loading Process Pipeline

Load source data and manage SRSs content loading process.

#### Beta Site Upload

Update source code and SRSs content to Beta testing site.

#### Content Assitant Manager

Manage, edit and create new help documents for ClarityVista.

#### Manual Curation Assistant

Upload new verbatim terms and facilitate their mapping to already curated terms.

#### Review Thesaurus Updates

Review the manually curated terms before they are accepted in the Thesaurus.

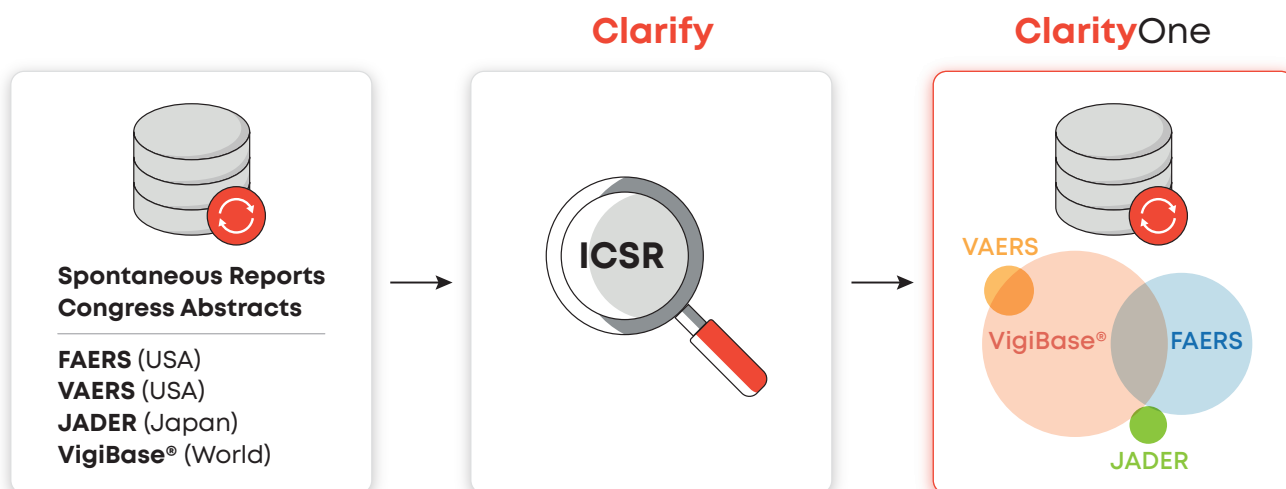
#### Manual Thesaurus Commit

Accept newly mapped raw terms as valid terms in the Thesaurus.

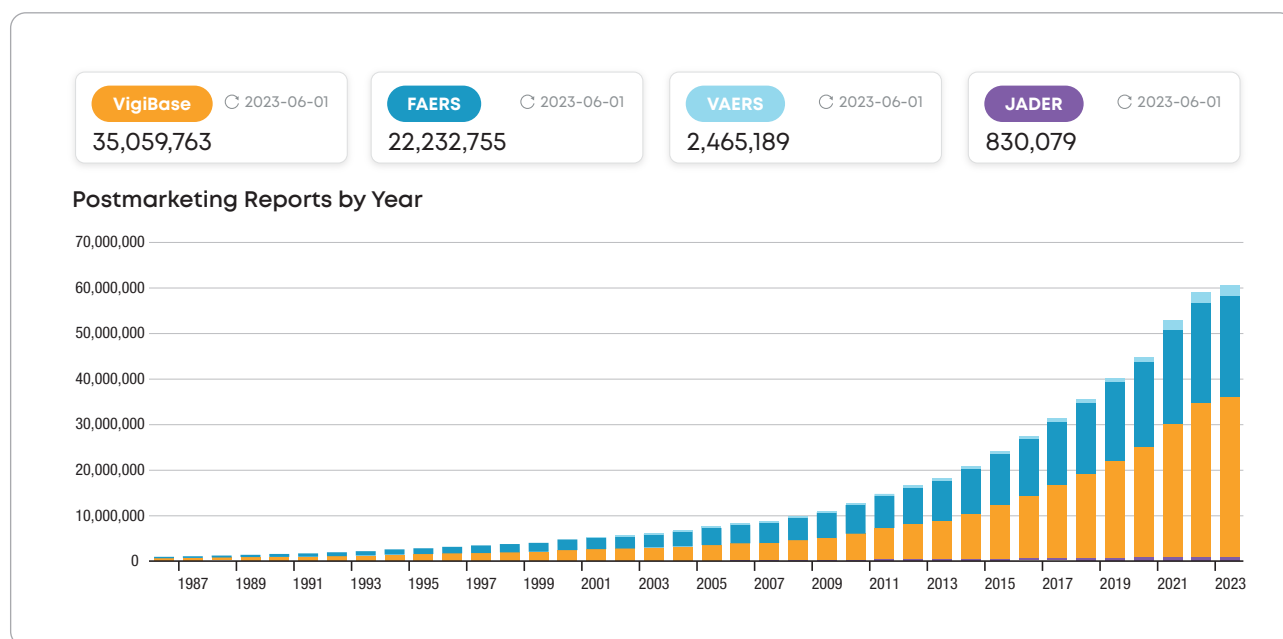
# ClarityOne: One Integrated SRS



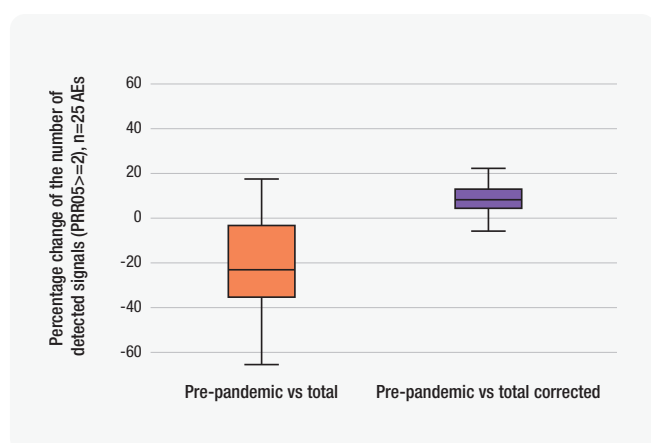
Data cleansing (deduplication), Term normalization (integration), Report labelling (deCOVIDation) of individual and integrated SRS sources.



## Summary of SRS Data Contents



## Impact of COVID on safety signals



### Medicinal Products

- Single Drugs: 12,975
- Vaccines: 611

### Pharmacology

- Targets: 5,171
- Affinities: 500,126

### Preclinical

- Preclinical Data: 81,864
- Metabolites: 845

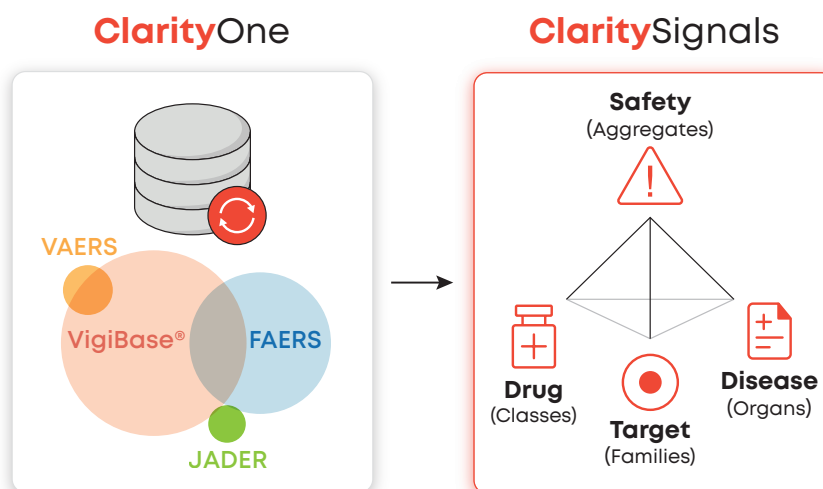
### Clinical

- Label Data: 167,845
- Trial Data: 52,390

# ClaritySignals: Safety Data Feeds



Generating high quality safety alerts and signals from the most up-to-date integrated, deduplicated and curated post-marketing spontaneous reporting systems.



## Drug (Class)

Safety Associations

**1,091,223** reported associations  
(including 1,735 signals and 4,151 warnings)  
between 593 chemical classes and  
16,422 side effects.

**10,518,538** reported associations  
(including 56,489 signals and 106,569  
warnings) between 4,061 drugs and  
22,399 side effects.



## Target (Family)

Safety Associations

**7,246** reported associations  
between 527 target families  
and 2,823 targets.

**4,837** reported associations  
between 175 target families and  
2,648 targets.

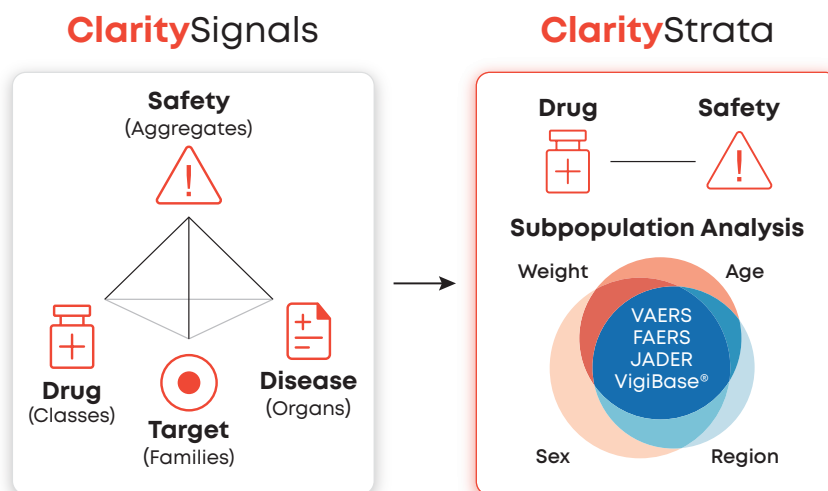
## Safety Data Feed Sample

Drug Class Name	Side Effect Preferred Term	Alert Level
Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors	Fungal Infection	Signal
Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors	Ketoacidosis	Signal
Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors	Urinary Tract Infection	Signal
...	...	
HMG-CoA Reductase Inhibitors	Muscular Weakness	Signal
HMG-CoA Reductase Inhibitors	Myalgia	Signal
HMG-CoA Reductase Inhibitors	Rhabdomyolysis	Signal
...	...	
Poly (ADP-ribose) polymerase (PARP) Inhibitors	Anaemia	Signal
Poly (ADP-ribose) polymerase (PARP) Inhibitors	Haematotoxicity	Signal
Poly (ADP-ribose) polymerase (PARP) Inhibitors	Platelet Count Decreased	Signal

# ClarityStrata: Stratified Data Feeds



Generating high quality safety alerts and signals from stratified subpopulations of patient characteristics.



## Sex

- Female
- Male



## Age

- Newborn
- Infancy
- Childhood
- Adolescence
- Adulthood
- Midlife
- Maturity
- Retirement



## Weight

- Underweight
- Normal
- Overweight
- Obese



## Region

- American Region
- European Region
- Western Pacific Region
- South-East Asia Region
- Eastern Mediterranean Region
- African Region

## Stratified Data Feed Sample

Drug Name	Side Effect	Sex	Age	Weight	Region	PRR05
Aripiprazole	Dyskinesia	-	-	-	-	9.84
Aripiprazole	Dyskinesia	Male	-	-	-	8.48
Aripiprazole	Dyskinesia	-	Retirement	-	-	7.50
Aripiprazole	Dyskinesia	Male	Retirement	Underweight	-	5.98
Aripiprazole	Dyskinesia	-	-	-	-	8.17
Aripiprazole	Dyskinesia	-	-	-	Americas	11.52
Aripiprazole	Dyskinesia	-	-	Underweight	Western Pacific	5.14
Aripiprazole	Dyskinesia	-	-	Underweight	Americas	10.14
Aripiprazole	Dyskinesia	-	-	-	Western Pacific	1.56

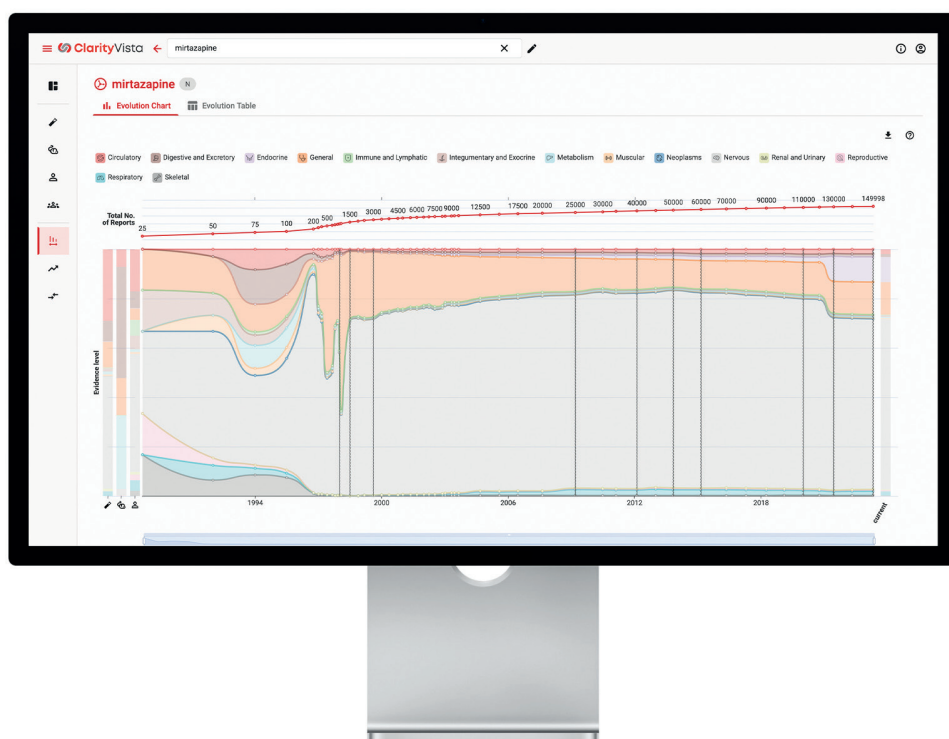
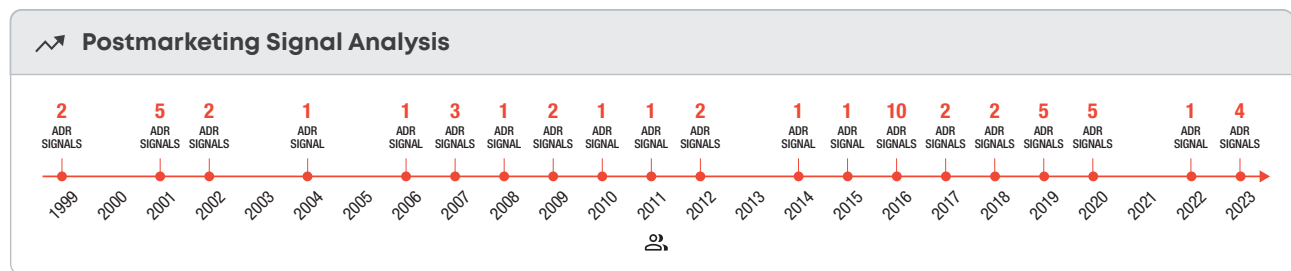
# ClarityVista: Translational Safety



An integrative safety analytics platform to explore the full data contents of ClarityOne and the knowledge graphs of ClaritySignals and ClarityStrata.



Facilitating the analysis of safety associations and post-marketing surveillance







# ClaritySuite

Your Safety Intelligence Platform

 **Chemotargets**

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