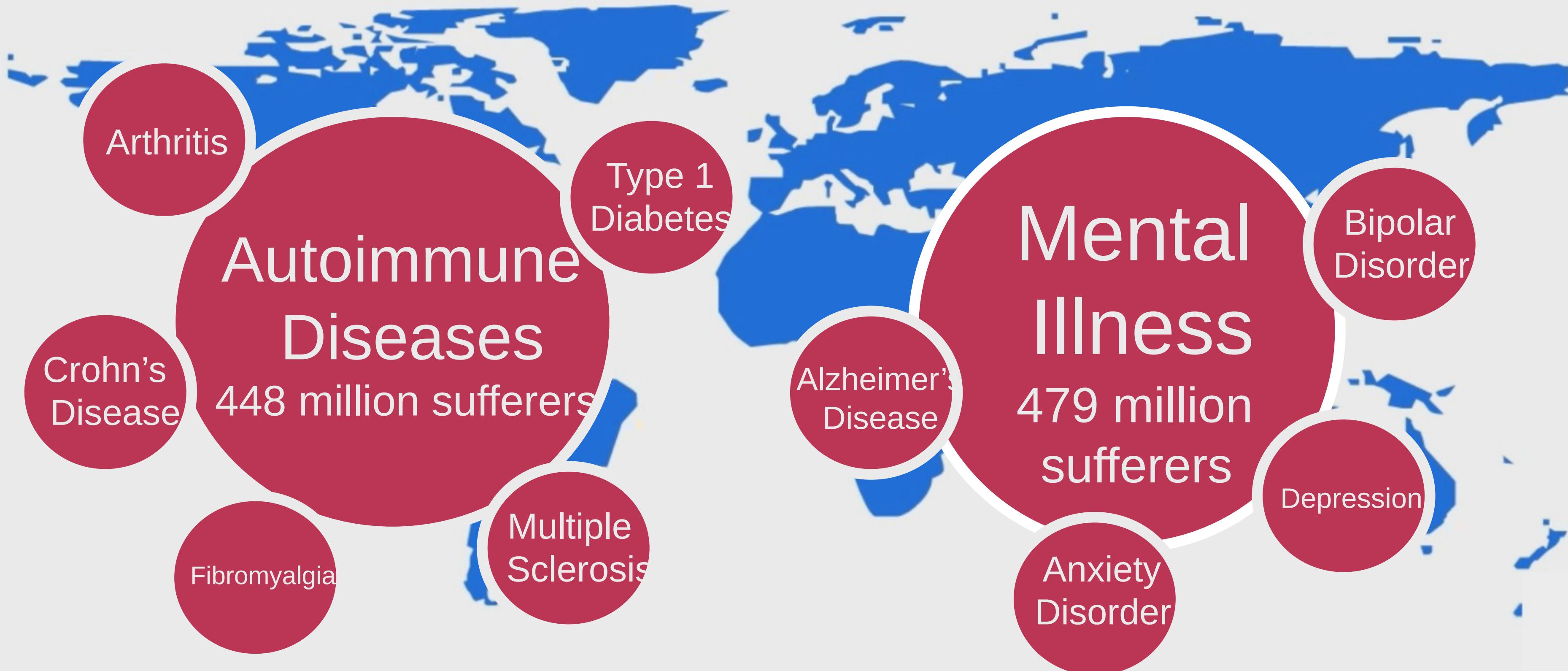


# OPTOMITRON

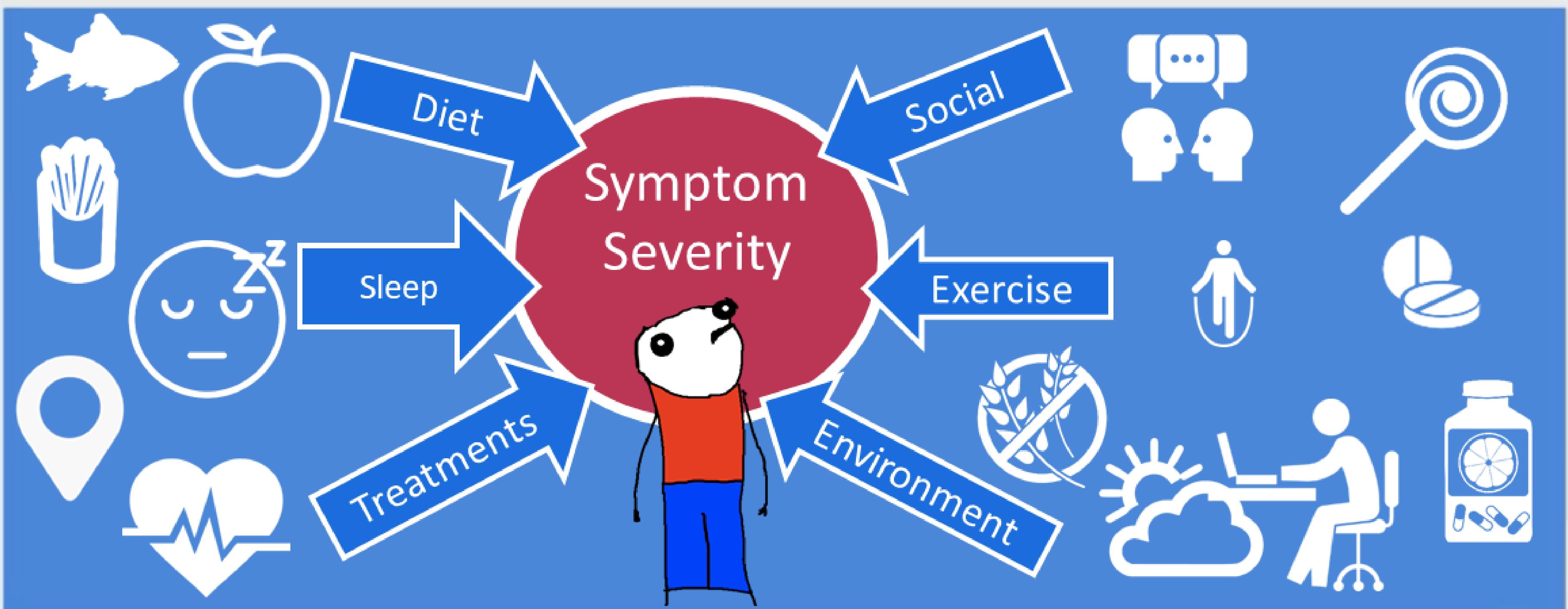


Using machine learning to identify the most effective ways to treat and prevent inflammation-mediated disease.

# A BILLION PEOPLE SUFFER FROM INFLAMMATION MEDIATED DISEASES

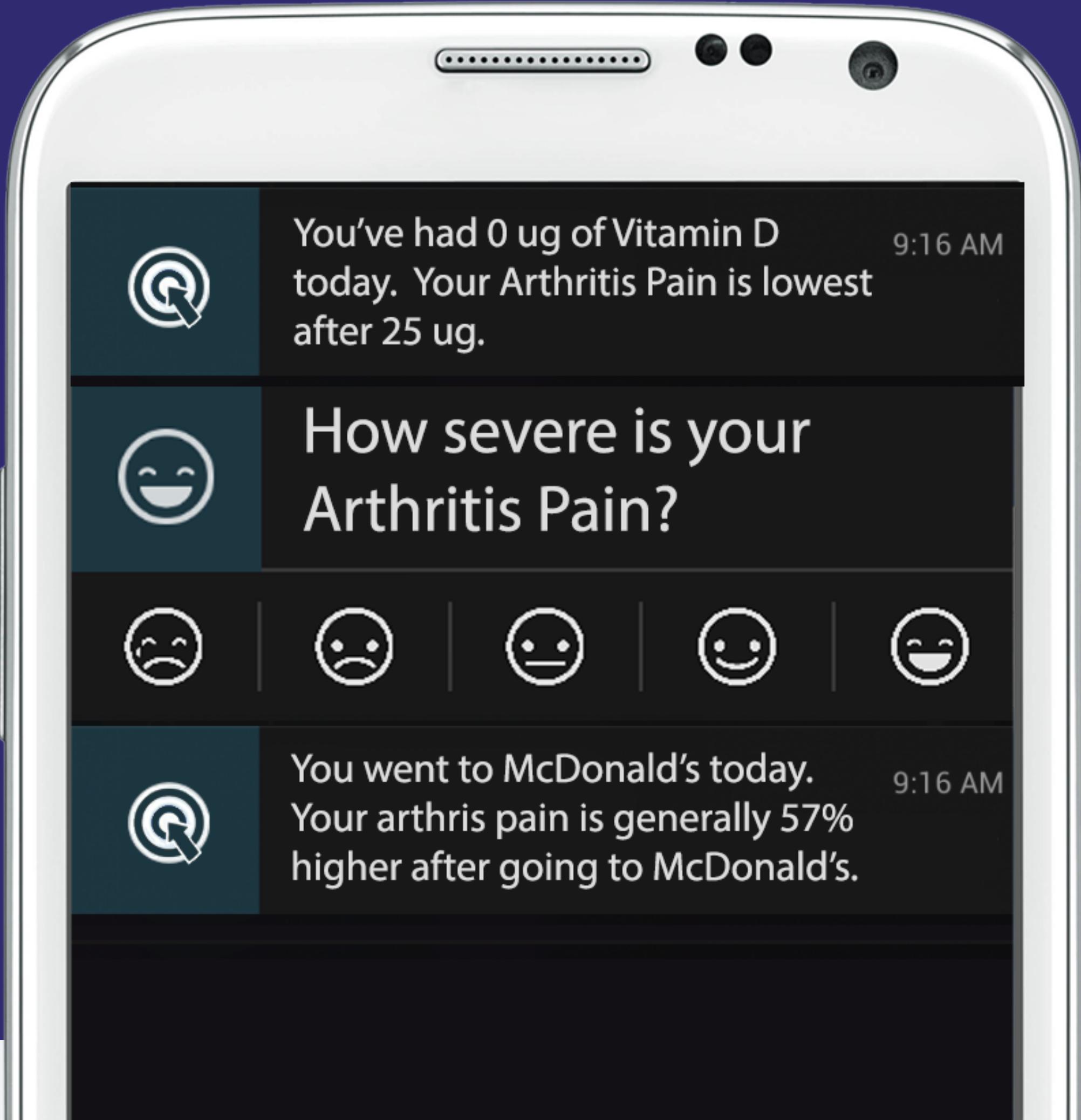


What all of these diseases have in common is that they can be influenced by many factors. Unfortunately, the human mind does not have the ability to absorb and analyze the massive amounts of data required to identify which factors are most significant.



THE EFFECTS OF  
THOUSANDS OF  
FOODS/ADDITIVES ON  
THOUSANDS OF  
SPECIFIC HEALTH  
CONDITIONS

HOW MUCH WE KNOW → ●



# Solution Real-Time Personalized Recommendations to Minimize Arthritis Pain

ALL AVAILABLE  
FORMAL RESEARCH



MEDICAL AND  
INSURANCE RECORDS



DIET DATA FROM  
APPS & FOOD  
DELIVERY RECEIPTS



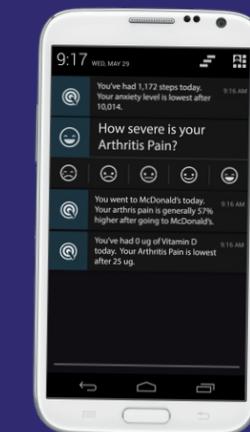
ELECTRONIC  
SUPPLEMENT  
RECEIPTS



ELECTRONIC  
PHARMACY  
RECEIPTS



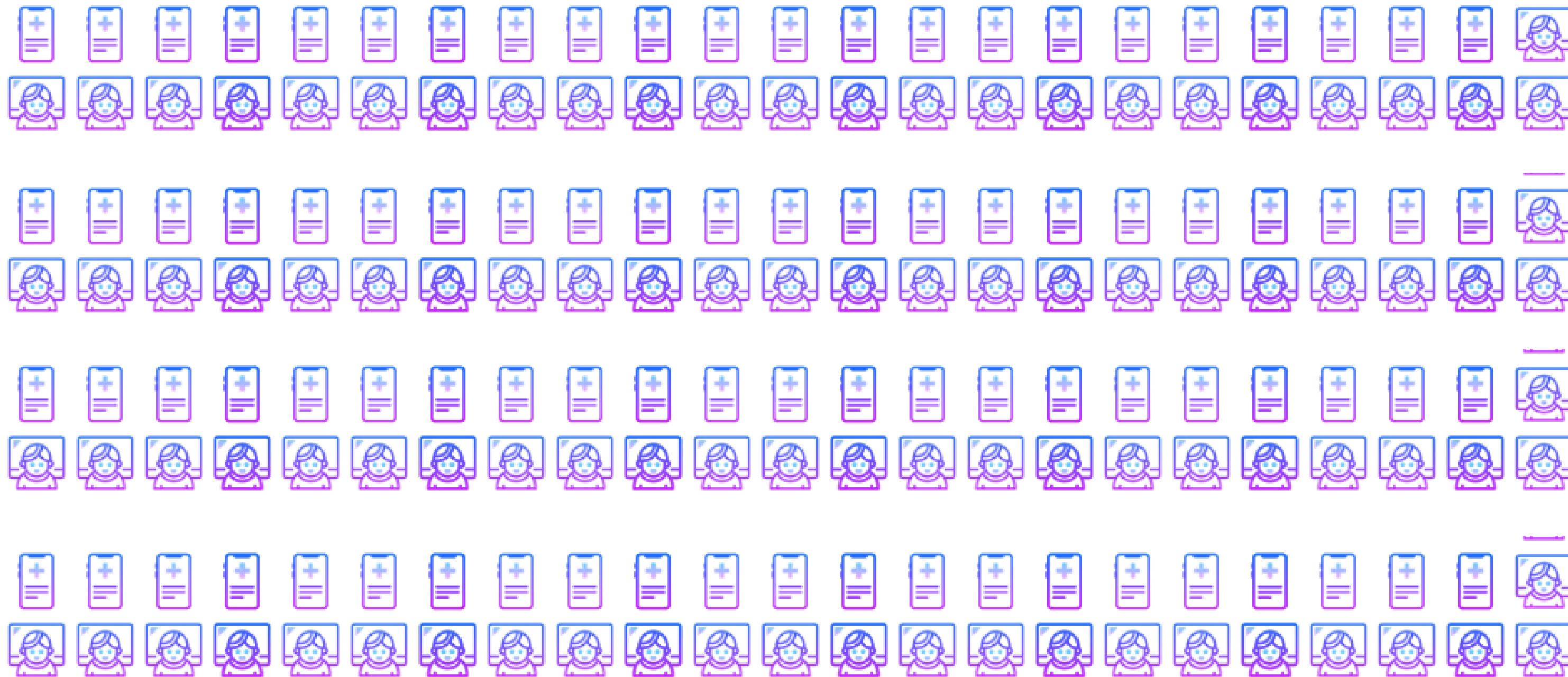
USER RECEIVES  
OPTIMIZATION  
RECOMMENDATION  
PROTOCOL

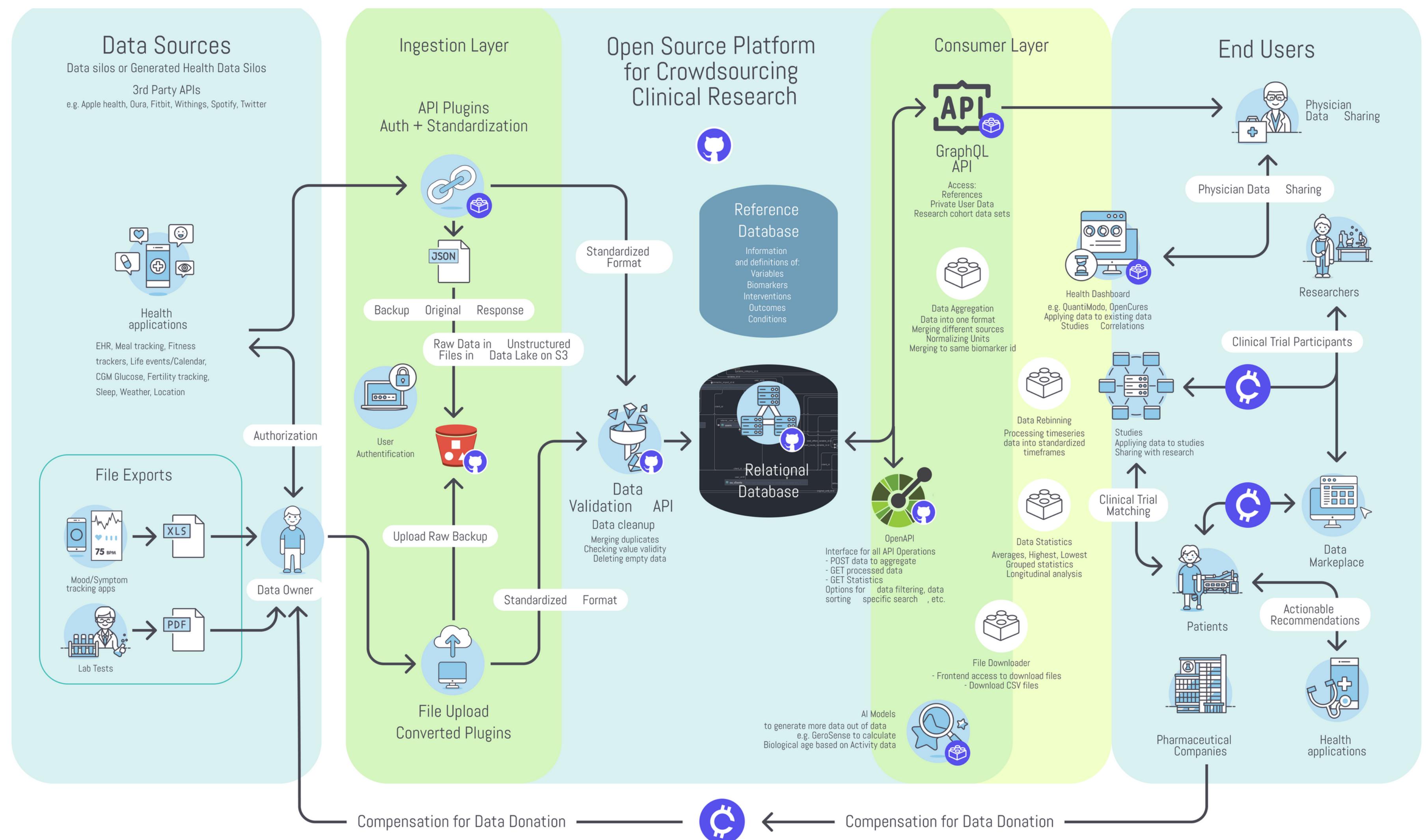


NEW OUTCOME DATA  
USED TO REFINE  
PREDICTIVE MODEL

# **Target Customers**

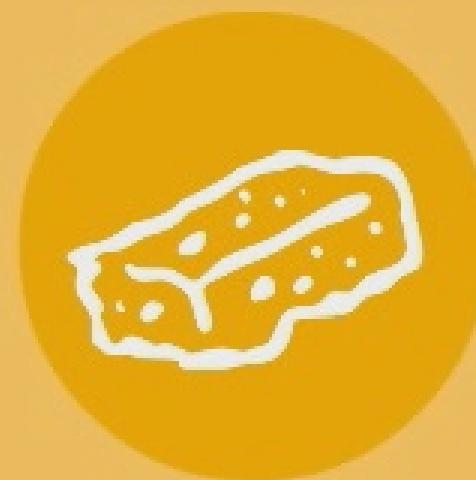
# **350,000 Digital Health Apps**



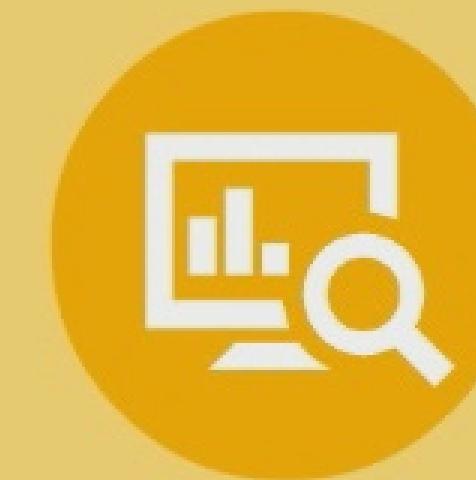


# Underlying Technology

## Analytics Engine



**Data  
Normalization,  
Cleaning, and  
Standardization**



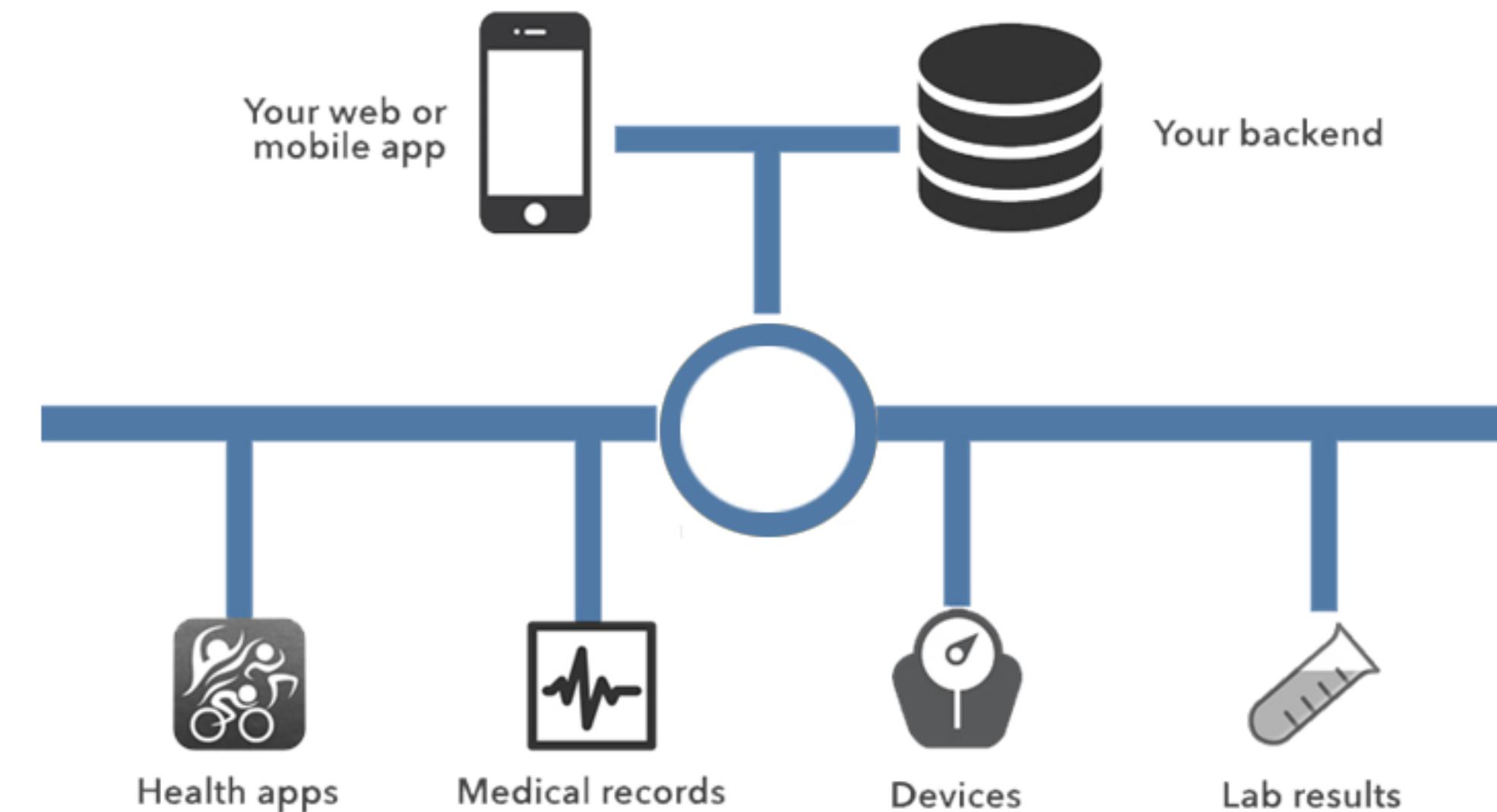
**Mines Data for  
Relationships Using  
Pharmacokinetic  
Modeling**



**Determine Values  
Which Lead to  
Optimal  
Outcomes**

# Software-as-a-Service Business Model

Existing Apps  
Incorporate  
Our  
Analytics



# Plugin Marketplace

Free and paid add-ons for importing, collecting, analyzing data, managing patients, conducting trials, and publishing studies.

⊕ Data Sources

⌚ Storage

🎲 Visualization

⛓ Machine Learning

↑ EHR

哱 Clinical Trials

| Outcomes                |              |
|-------------------------|--------------|
| of Melatonin (mg)       |              |
| % Change from Baseline* |              |
| Drowsiness              | -12% Lower   |
| Overall Mood            | +17% Higher  |
| Arthritis Pain          | +16% Higher  |
| Pearlitis Severity      | +15% Higher  |
| Nervousness             | -12% Lower   |
| Anxieties               | -14.1% Lower |
| Burning Tongue          | +18% Higher  |

## Outcome Labels

Lists the degree to which a food, supplement, or drug is likely to improve or worsen specific health outcome or symptom.



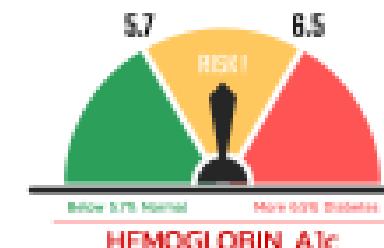
## Real-Time Decision Support

Notifications with personalized most-important-thing (MIT) you can do to optimize your health and happiness based on a cost-benefit analysis.



## Trial Recruitment CRM

Enables specification of study exclusion criteria and identifies potential participants for your trial. Sends invitations to join studies.



## Health Score Widgets

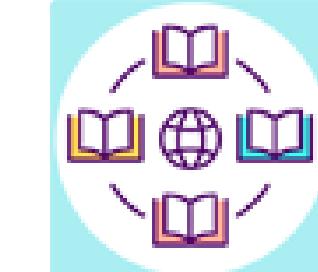
Embeddable health score gauge widgets for lots of biomarkers. Sends notifications when outside optimal ranges.



## Jupyter Analysis Notebooks



## EHR System Integration



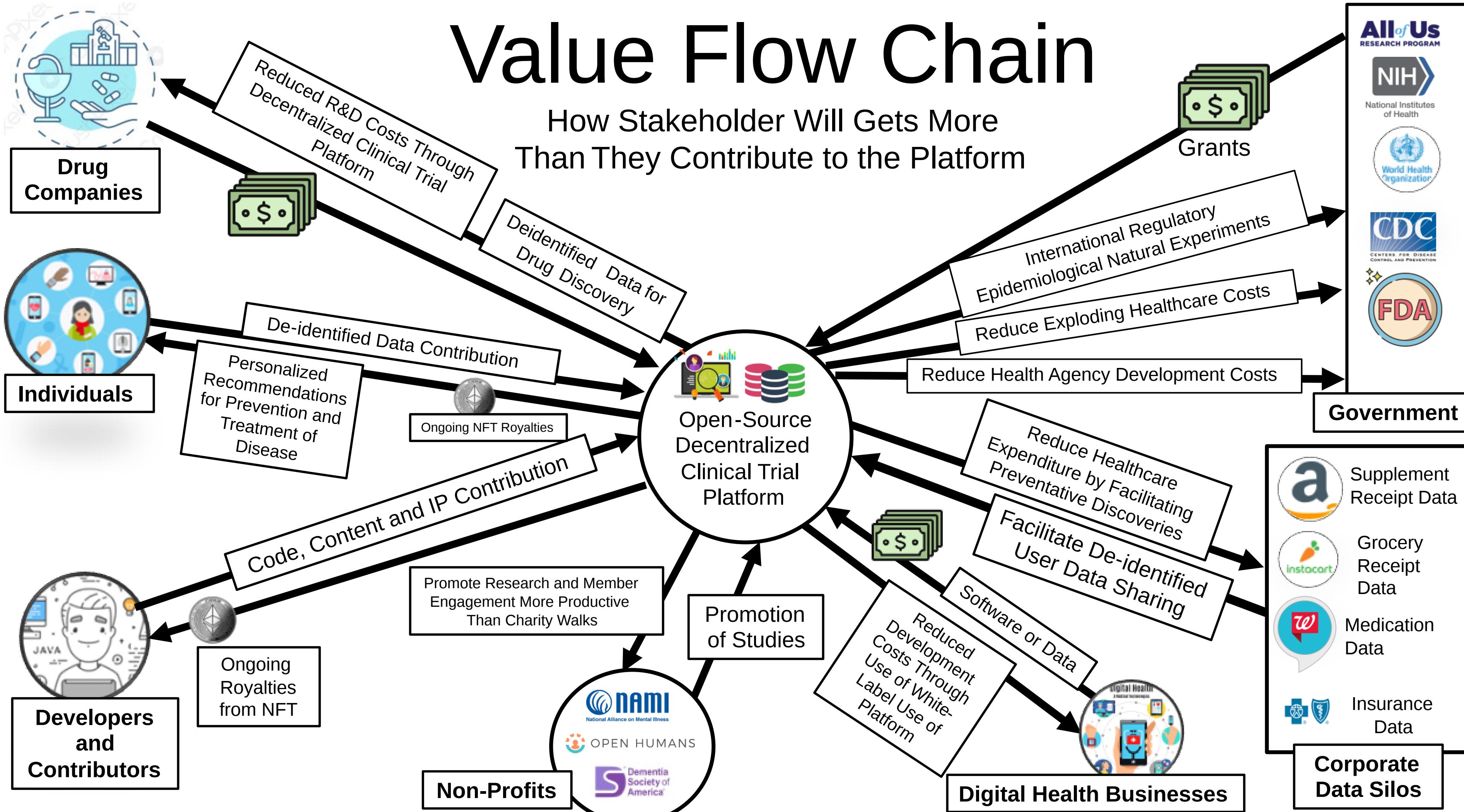
## Aggregated n1 Studies



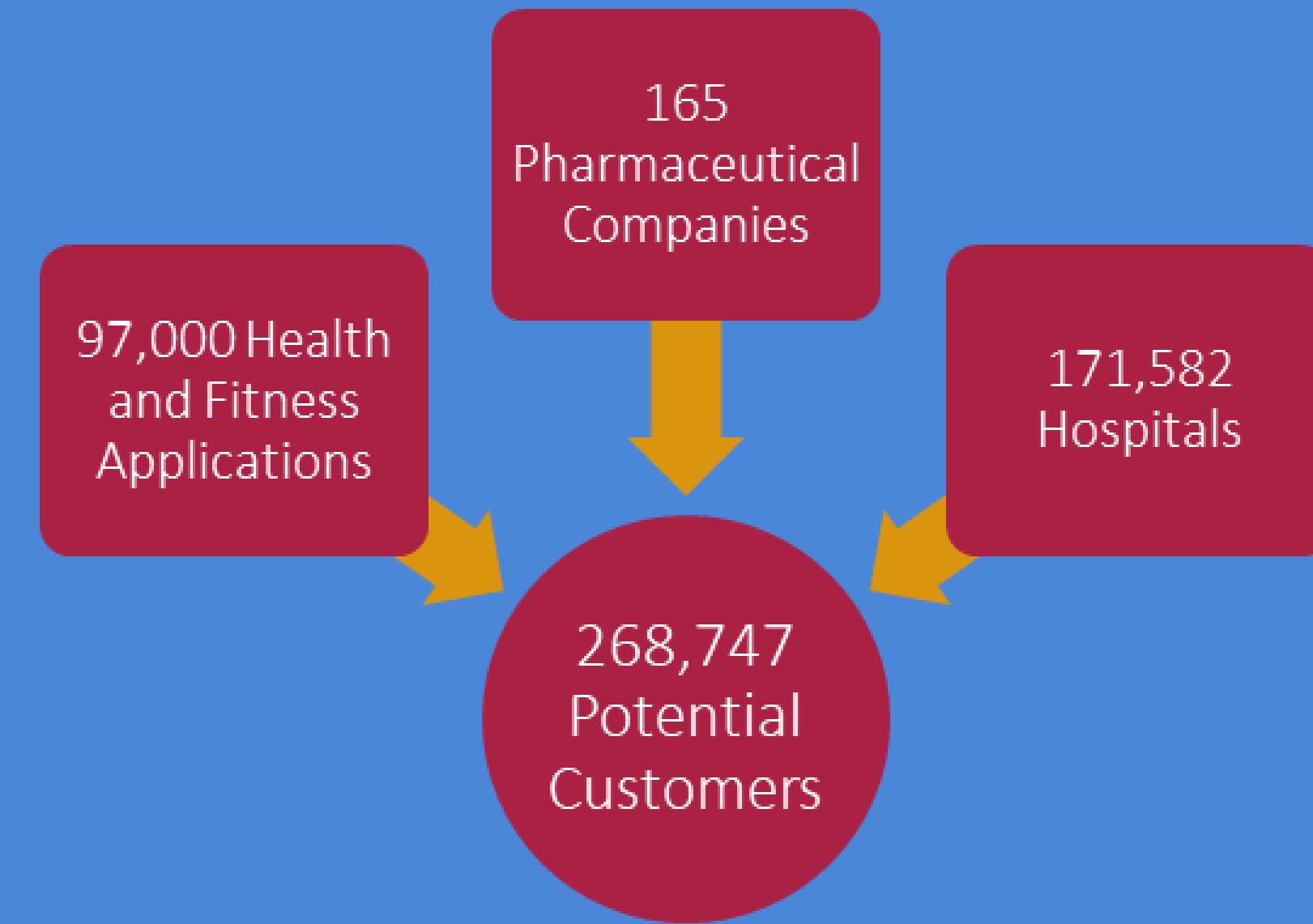
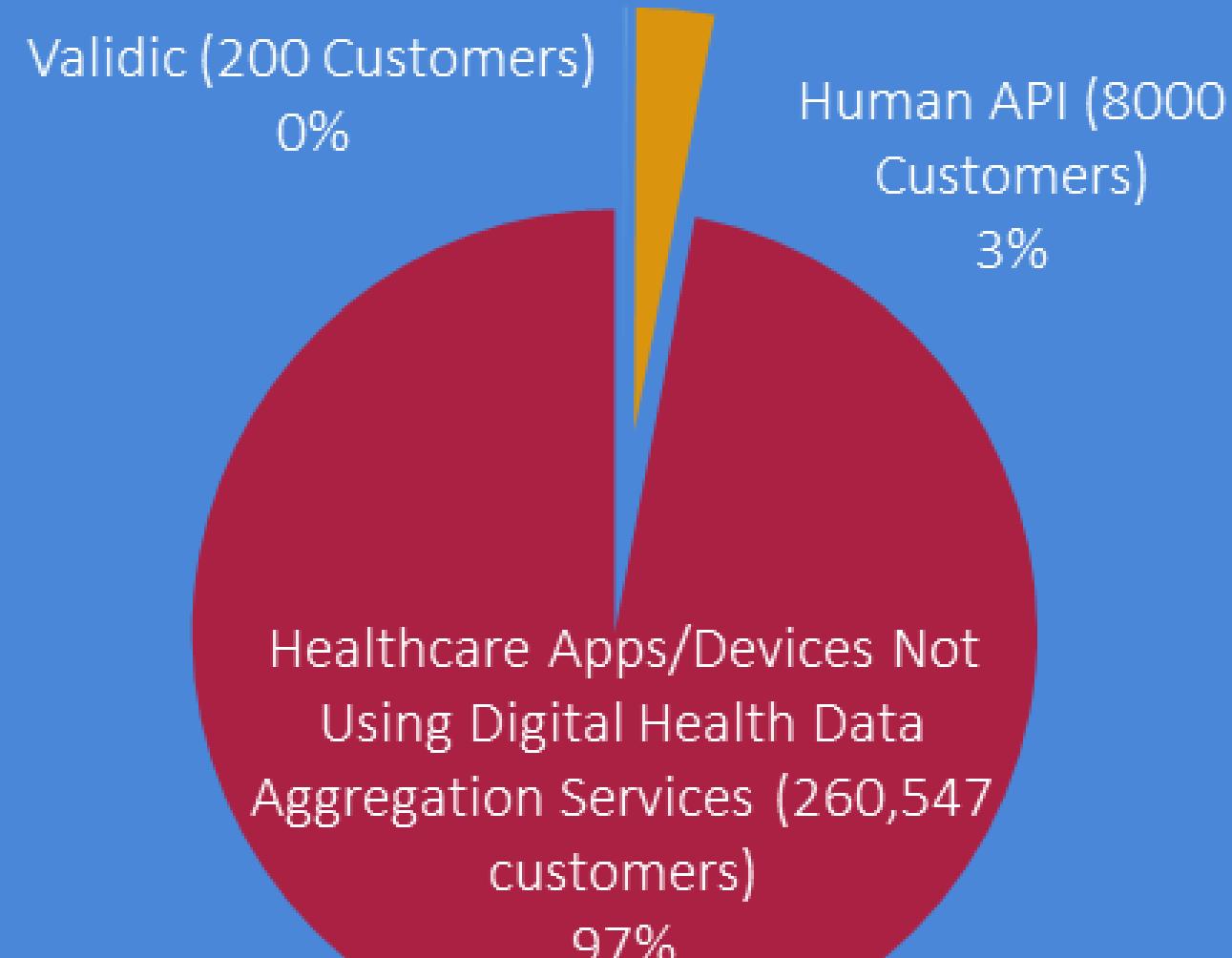
## Root Cause Analysis

# Value Flow Chain

How Stakeholder Will Gets More Than They Contribute to the Platform



# PRIMARY MARKET (SaaS)



# Competitive Landscape

| Company  | Price per user per year | Data Aggregation | Identifies Predictors of Symptoms | Determines Optimal Daily Values |
|--|-------------------------|------------------|-----------------------------------|---------------------------------|
|  Human API  | \$5                     | ✓                | ✗                                 | ✗                               |
|  VALIDIC    | \$4                     | ✓                | ✗                                 | ✗                               |
|  OPTOMITRON | \$3                     | ✓                | ✓                                 | ✓                               |

# MEET *The TEAM*



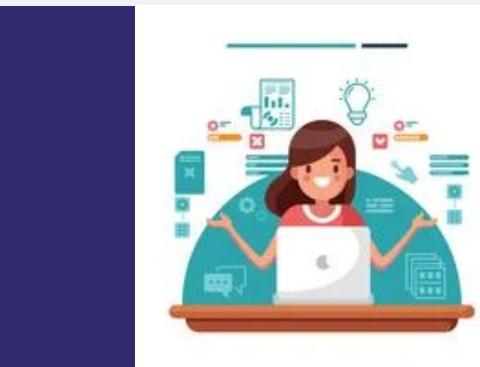
**Mike P. Sinn**  
Software engineer



**Ishan Dutta**  
Undergrad Biotechnology  
student



**Nayana Varghese**  
Undergrad Bioengineering  
student



**Chaitrali Yeole**  
Undergrad Bioengineering  
student



**Anshumi Patil**  
Undergrad Bioengineering  
student

