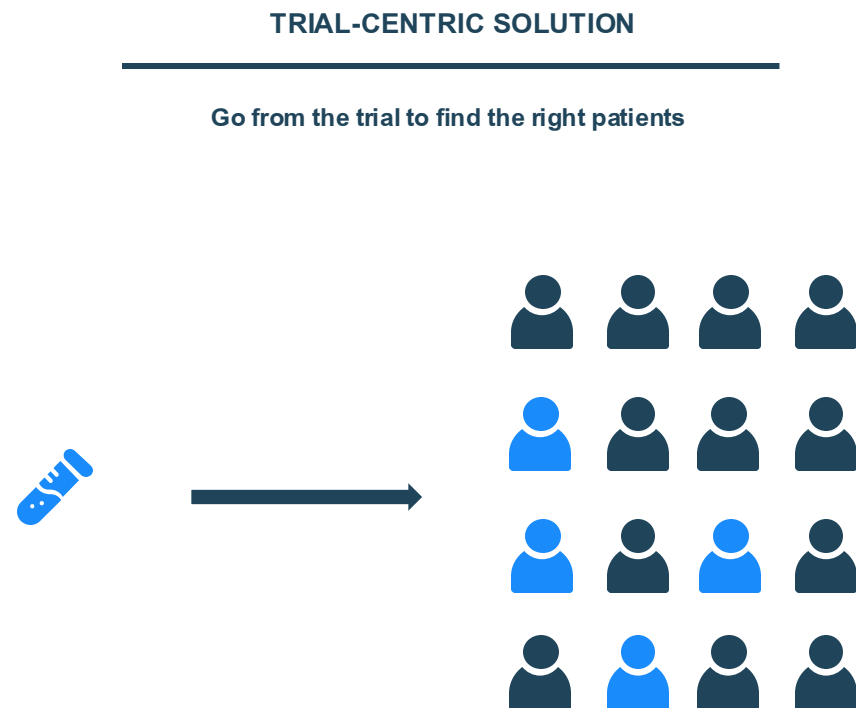


PatLynk.

AI-powered patient recruitment in days, not months



Changing the paradigm

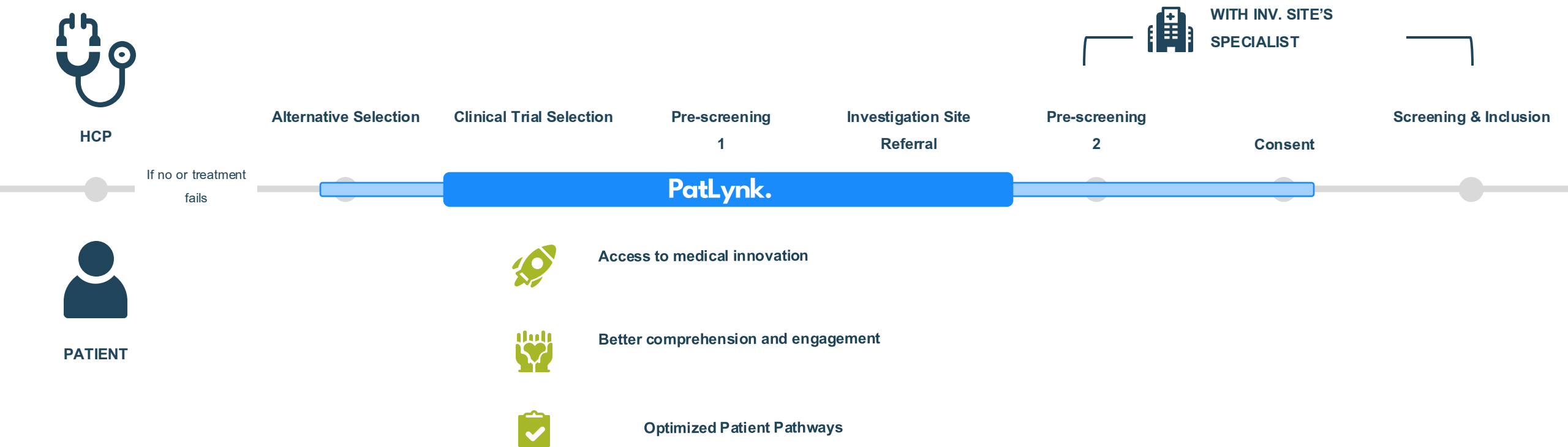


VS





Patients Pathway to Clinical Trial



Use case #1 – LLM for NLP

How can we simplify medical terminology to enhance patient understanding?

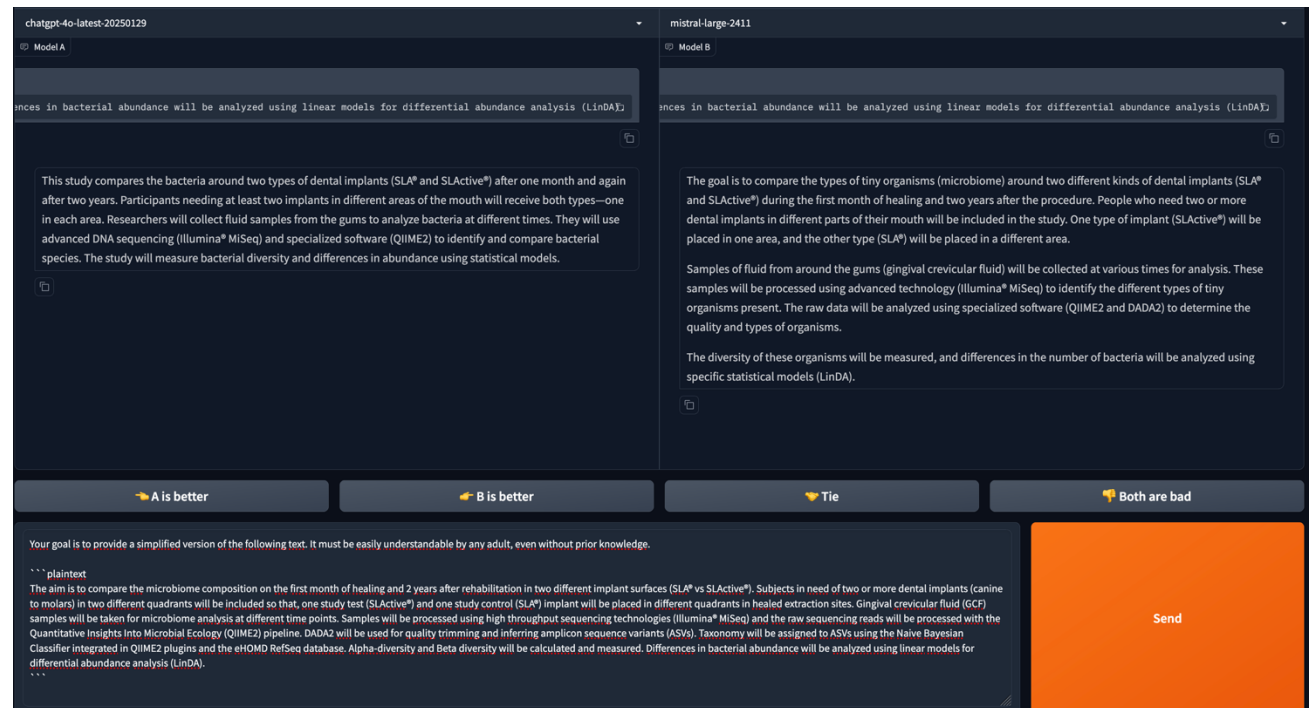
The aim is to compare the microbiome composition on the first month of healing and 2 years after rehabilitation in two different implant surfaces (SLA® vs SLActive®). Subjects in need of two or more dental implants (canine to molars) in two different quadrants will be included so that, one study test (SLActive®) and one study control (SLA®) implant will be placed in different quadrants in healed extraction sites. Gingival crevicular fluid (GCF) samples will be taken for microbiome analysis at different time points. Samples will be processed using high throughput sequencing technologies (Illumina® MiSeq) and the raw sequencing reads will be processed with the Quantitative Insights Into Microbial Ecology (QIIME2) pipeline. DADA2 will be used for quality trimming and inferring amplicon sequence variants (ASVs). Taxonomy will be assigned to ASVs using the Naive Bayesian Classifier integrated in QIIME2 plugins and the eHOMD RefSeq database. Alpha-diversity and Beta diversity will be calculated and measured. Differences in bacterial abundance will be analyzed using linear models for differential abundance analysis (LinDA).

Use case #1 – LLM for NLP

Your goal is to provide a simplified version of the following text. It must be easily understandable by any adult, even without prior knowledge.

```plaintext

```



Use case #2 – LLM for Synthetic Data

Health data is heavily regulated, making real-world training data difficult to obtain

GDPR

Right to be forgotten

Strict Anonymisation

Patient Consent

HIPAA

Focused on Security

Safe Harbor Method

PHI Sharing

Use case #2 – LLM for Synthetic Data

How can we generate high-quality, unbiased health data using AI?

Identify & balance underrepresented groups in datasets

Generate diverse patient profiles to reduce bias

Avoid personal data with Synthetic Data

Use case #3 – LLM as an Assistant

AI-driven health advisors for patients with basic guidance

Providing health advices without false information

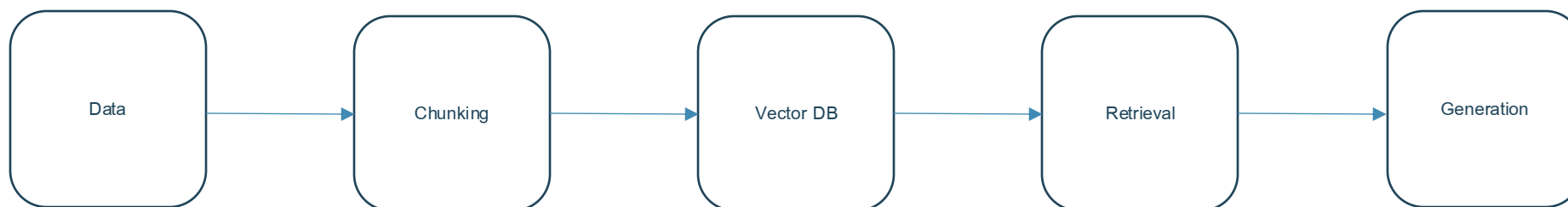
Public-facing LLM may introduce high costs

User may input sensitive health information

Control provided information with source of truth

Use case #3 – LLM as an Assistant

AI-driven health advisors for patients with basic guidance



Use case #4 – LLM as a Retrieval Engine

HCPs need fast and easy access to large volumes of information

Keyword-based Retrieval

Semantic Search

Hierarchical Retrieval

Key questions

Compliance

Sensitive Data: Ensure compliant storage and usage

Synthetic Data: Avoid the use of real Health Data

Safeguards

Public-faced LLM: Ensure you have key security measures to keep costs under control

Source of truth: Use a RAG instead of using uncontrolled data

LLM is a tool

Aim for simplicity: Ask yourself if LLM is the right choice

Valuable integration: LLM will never stand by itself, clean data and tech assets are key

PatLynk.
Thank you!

 Tanguy Retail

