connects
science meets business

Barcelona Supercomputing Center
Centro Nacional de Supercomputación

Challenges proposed by

Bristol Myers Squibb

NEXIA

Aina

Generalitat de Catalunya

BACKGROUND

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Bristol Myers Squibb™

NEXIA

Bristol Myers Squibb is a global biopharmaceutical company focused on serious disease, with oncology and haematology as its largest therapeutic areas. Its Spanish affiliate runs a Digital Health & AI portfolio deployed with hospitals and regional health authorities, under the naming of “NEXIA”: from AI–assisted chest X–ray screening, digital pathology to patient–journey redesign in oncology day hospitals.

AREAS OF INTEREST

- ARTIFICIAL INTELLIGENCE
- DATA & ANALYTICS
- LANGUAGE TECH / AINA

Aina

Generalitat de Catalunya

CHALLENGE 1

Bristol Myers Squibb

TITLE

Voice–to–structured text for oncology anamnesis

CONTEXT

In an oncology consultation the physician spends much of the visit typing rather than looking at the patient. The anamnesis (symptoms, toxicities, functional status, social context) is the richest signal of the visit, and most of it never reaches the electronic health record in structured form.

CHALLENGE

A demonstrator that captures the consultation by ambient voice and returns a structured, coded clinical note. Real consultations are Catalan and Spanish, often in the same sentence, and carry dense oncology terminology. No clinical corpus exists in Catalan for this domain, and inference must run within hospital data–protection limits.

This challenge focuses on language technologies; the solution you propose must incorporate the resources from the Aina project. Please find all of the Aina's resources linked here and on the website.

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CHALLENGE 1

Bristol Myers Squibb

OUR INTEREST

Give consultation time back to the patient, and leave behind structured data that is reusable for follow–up and research. Aina Kit and Salamandra are the natural starting point.

KEY WORDS

ASR · clinical NLP · Catalan / Aina · FHIR

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CHALLENGE 2

Bristol Myers Squibb

TITLE

Next–best–action on the oncology record

CONTEXT

Once the anamnesis is structured, the next decision — which complementary test, which referral, which follow–up interval — still rests on the clinician recalling a long patient history under time pressure.

CHALLENGE

A demonstrator that reasons over the structured anamnesis together with the longitudinal record and proposes the next best action, grounded in clinical guidelines and traceable to its source. Every recommendation must be explainable, reviewable and reversible by the physician.

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CHALLENGE 2

Bristol Myers Squibb

OUR INTEREST

Evidence here is still limited and the regulatory bar is high (MDR, AI Act). We are looking for a rigorous evaluation framework before any deployment — the part a research partner adds most value to.

KEY WORDS

agentic AI · guidelines · evaluation · MDR

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Submit your proposal here

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