Vector Bioscience Cambridge

The most versatile delivery platform

ML-enabled platform for engineering **NanoShuttles**, which can then be formulated for various therapeutic modes and delivery

What do we do

NANODEPOT
Drug depot for slow release of difficult-to-formulate APIs

PRECISION MEDICINE
Universal solution to targeted delivery using antibodies

VECTOR RADIO
Radiodynamic, photodynamic therapy

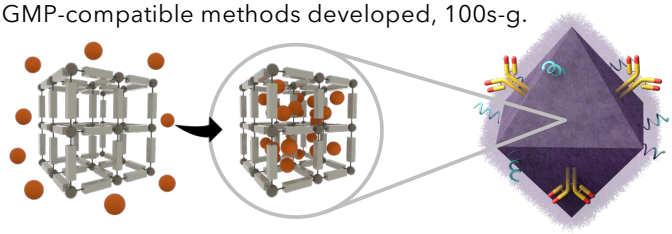
Where we are

- Cambridge spin-out
- In-vivo data
- IP secured
- £3m funding

2013 £15m R&D → 2022 Founded → 2023 EIC Transition → Partnership

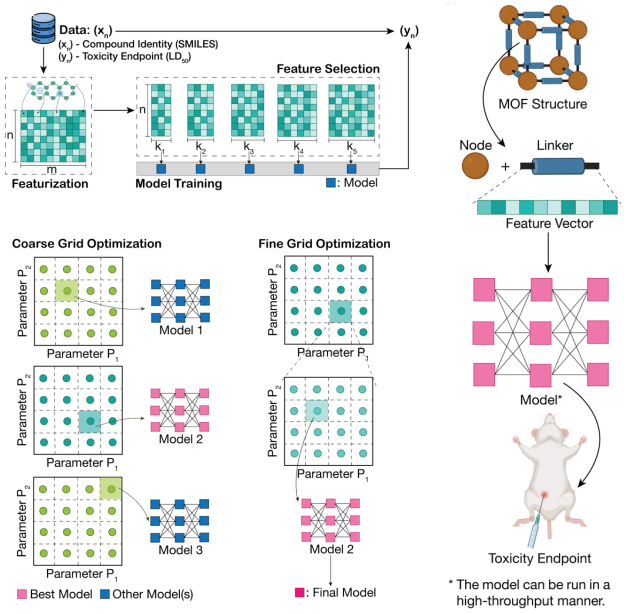
Vector's NanoShuttles

- Macromolecule encapsulation & protection, stable at RT.
- Grafted surface to improve performance, stability, **controlled** release, and **targeting**.
- Increased efficacy where antibody-drug conjugates fail.
- **Plug-and-play** platform technology: agnostic to the cargo.
- GMP-compatible methods developed, 100s-g.



ML-driven NanoShuttles & Targets

- Best-performing model undergoes further optimization to screen for biocompatible MOF candidates.
- Minimize biocompatibility issues later in vivo



* The model can be run in a high-throughput manner.

Commercialisation strategy

Three commercialisation routes:

- Proprietary pipeline
- Co-development partnership
- Licensing asset-by-asset

Addressable markets

Targeted applications - First cases

- **Lung cancer -** $37.18b by 2029, 14.10% CAGR
- **Pancreatic cancer** $6.12b by 2029, 13.7% CAGR
- **Breast cancer** $70.5b by 2030, 10.4 CAGR

Extend IP life

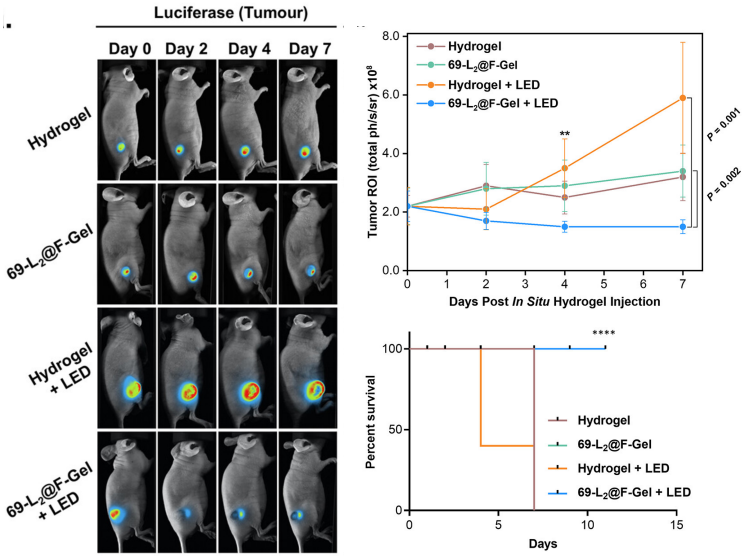
- $198b of drug revenue is coming off patent in the next 5 y (e.g. Keytruda).
- Vector's reformulation: high efficacy, lower side effects.

Rescue Strategy

- 30% of drugs that enter human testing are dropped due to high toxicity or side effects

In vivo data

- Vector's NanoShuttles are biocompatible, showing no immune response and no bioaccumulation (wild animals).
- Efficacy studies in pancreatic cancer, triple-negative breast cancer, and mesothelioma



Seeking strategic partners:

- Vector has **raised £3m** from non-dilutive sources: R&D de-risked.
- We **seek partners** with the ability to create value: validation + connections within biopharma

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