1

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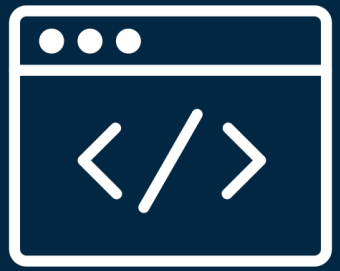

The core of what we do is **write code** and
create **software systems**.

1 “Big Data” Platforms

Organize and curate data from many cancer patients.

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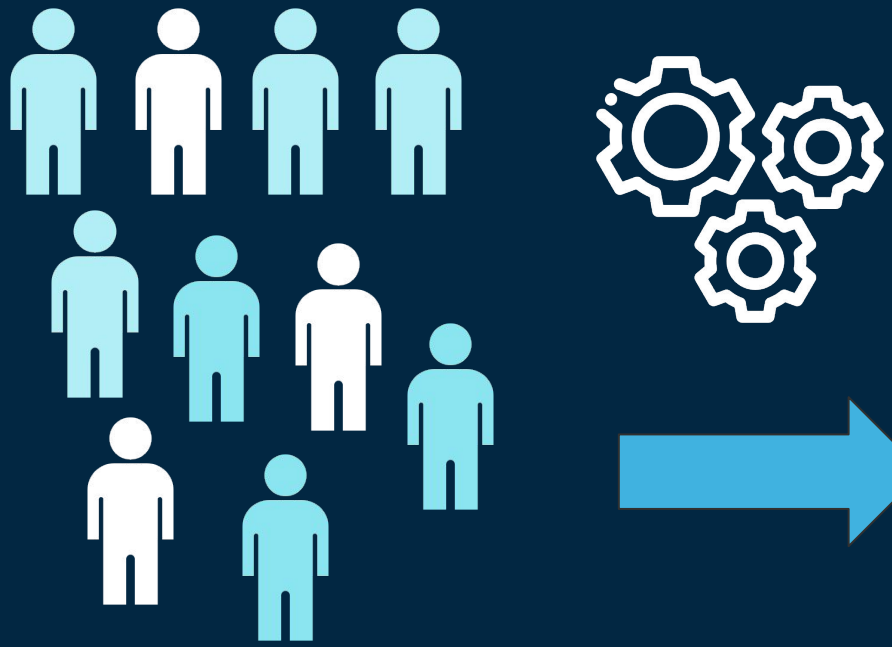
Build various tools that help researchers analyze and visualize that data.

1 “Big Data” Platforms



Enable Research

Discovery

1 “Big Data” Platforms

Examples:

cBioPortal

Human Tumor Atlas Network

Hector Data Platform

1 “Big Data” Platforms

2 Clinical Platforms

Build software systems designed to help the next patient at DFCI.

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Build software systems designed to help the next patient at DFCI.

Create software systems that enable precision cancer medicine at DFCI.

2 Clinical Platforms

Examples:

Profile

ImmunoProfile

Trial Matching

2 Clinical Platforms

2

Key ingredients for building useful software systems.

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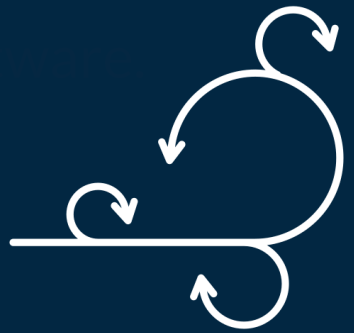

2

Key ingredients for building useful software systems.

Multidisciplinary teams (engineers, computational biologists, project managers, clinicians).

Teams are empowered to move quickly and iterate.

We are big believers in open source software.

3

AI is going to change everything we do.

Source: William Lotter, Michael J. Hassett, Nikolaus Schultz, Kenneth L. Kehl, Eliezer M. Van Allen, and Ethan Cerami. Artificial Intelligence in Oncology: Current Landscape, Challenges, and Future Directions. Cancer Discovery, May 01 2024.

Bird's eye view of AI in oncology.

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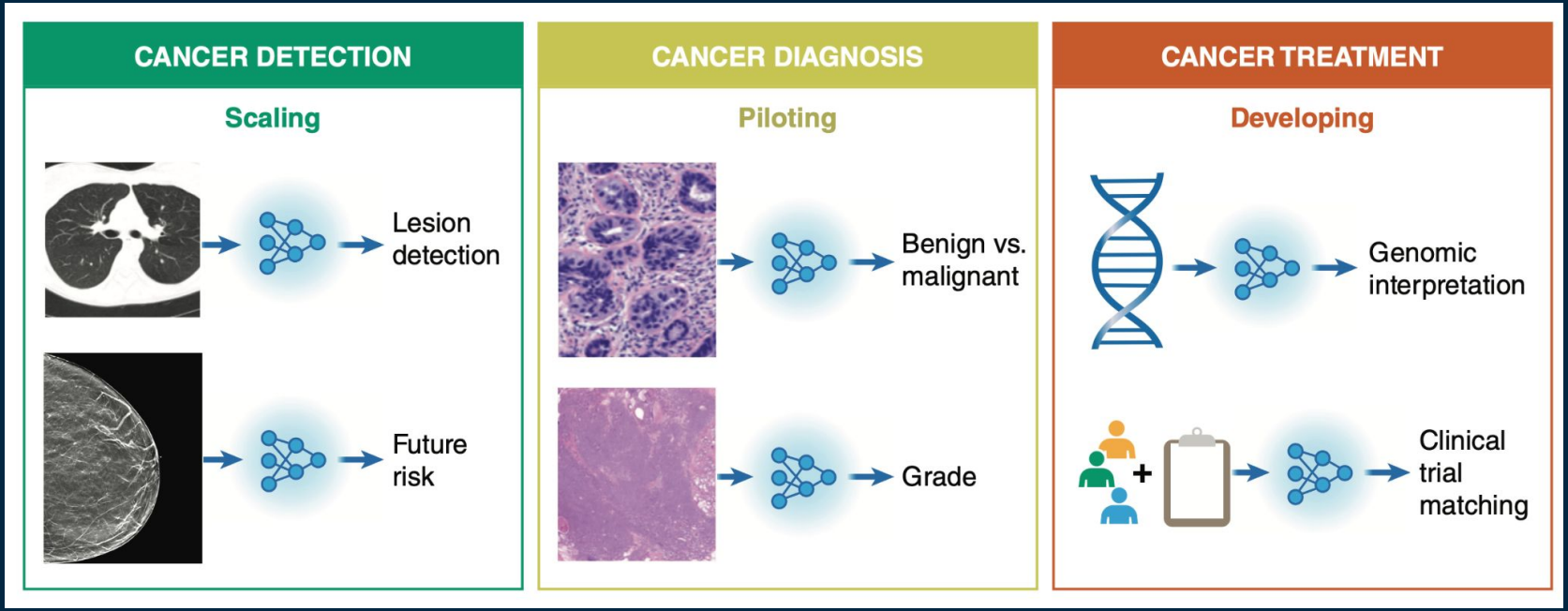
Bird's eye view of AI in oncology.

Where is AI being used now?

What's on the horizon?

Where do we see the opportunities?

Continuum of Cancer Care



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AI is already making significant inroads in:

- Pathology interpretation
- Radiology interpretation
- Genomic interpretation
- Clinical trial matching

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Vast, rapidly changing landscape.

Where do we see the opportunities, and where do we want to make a real impact?

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Will fund AI extensions to MatchMiner.

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Important validation of our AI and open source strategy.

4

We have a robust portfolio of projects.

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Each is described in the handout, which includes FY25 goals.

cBioPortal for Cancer Genomics

Meta - AI Extensions to MatchMiner

Human Tumor Atlas Network (HTAN)

Computational Biology Grants (Guru Ananda)

Grant Funded Projects

Center for Immuno-Oncology (CIO) Computational Biology

Thoracic Oncology Program (TOP)

Disease-Center Funded Projects

cBioPortal @ DFCI

MatchMiner

Strata-AI Platform

MAIA Clinical Trial Search Engine

Institutionally-Funded Projects

5

We have recently built some **really cool stuff** :-)