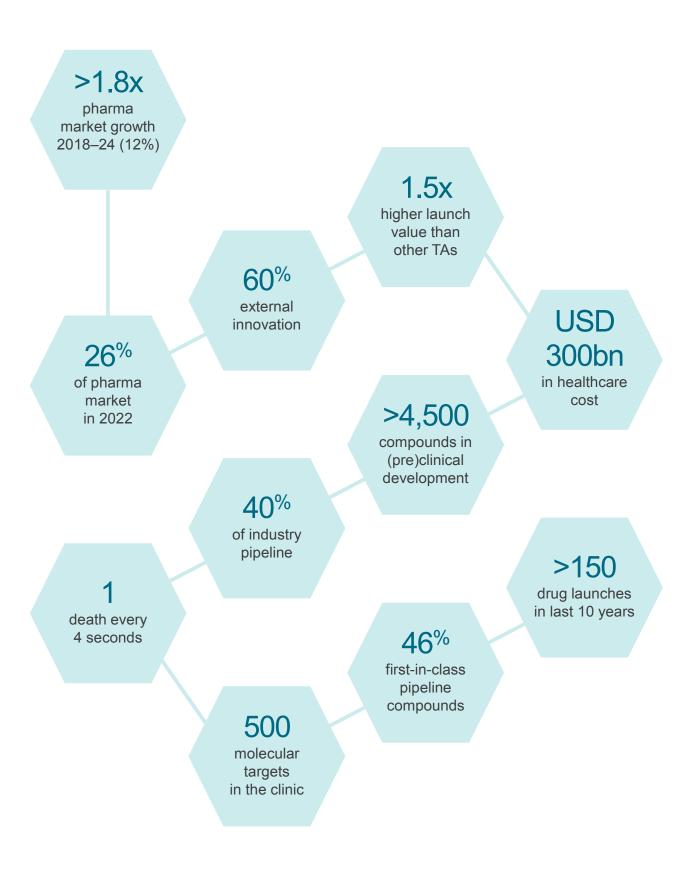
# An overview of the McKinsey Cancer Center

Qualifications and services



## Oncology in numbers



SOURCE: McKinsey

NOTE: Numbers refer to oncology and immunomodulators

## Key trends in oncology

# Smaller, stratified patient populations, complex treatment paradigms

- 1.5x higher growth rate in low-incidence tumors,
   50% of top-10 players' Phase III trials with CDx
- Treatment paradigms with sequential subpopulations

## Accelerated innovation and product lifecycles

- Ca. 50% of pivotal trials were phase I/II and there is an increased use of basket and umbrella trials
- Product lifecycles shortened from >5 years to 1–2

## Increased role of combinations and collaborations

- High-growth companies with >50% external innovation
- ~50% of PD(L)-1 trials in combinations

## Value shifts, big data, and novel access models

- More than USD100bn in value expected to shift
- Big data allowing more nuanced value capture

# Wave of new technologies and innovation

- Next wave of innovation (CAR-T, mRNA, etc.) driving growth
- Increased opportunities for personalization in therapy and diagnostics plus earlier detection

### The McKinsey Cancer Center and oncology – what we do

#### Client service across sectors

Industry-leading oncology expertise through client service across sectors and geographies

- Pharmaceutical and biotech companies
- Specialty pharmacies
- National health systems
- **Providers**
- Private and public payors
- Cross-sector service

#### Cutting-edge oncology knowledge and meetings

Rapid access to cuttingedge oncology expertise through network of experts across the world and internal investment

- External scientific advisory board of top oncology KOLs research and clinical
- Internal experts with oncology background
- Market research collaboration with Gerson Lehrman Group, Research Now, and AlphaSights
- Dedicated knowledge development efforts on key topics, e.g., combination therapies, new technologies, oncology clinical

## Conferences

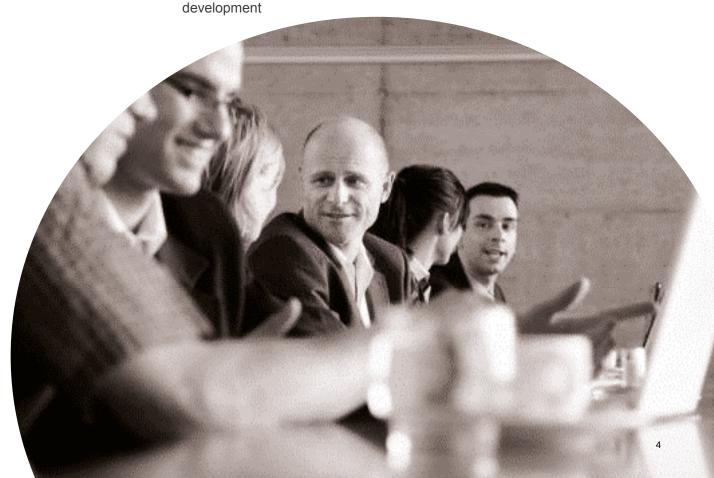
McKinsey events at key oncology conferences

- McKinsey Cancer Congress Series at ASCO since 2008
- Satellite Meeting at **ESMO**
- Regular participation ASH, AACR and other
- Roundtables and other events on selected deep-dive topics

#### Publications and perspectives

Publications in peerreviewed and other iournals

- Lancet International Cancer Benchmarking Partnership (ICBP): cancer survival study
- World Innovation Summit for Health on Affordable Cancer Care
- McKinsey Health International on health systems and cancer care
- Pathway-based CRC care improvement approach
- Over 20 other international publications



## How we support our clients

# Pharmaceutical companies

#### **Key project types**

- Business unit, commercial, and R&D strategies
- Optimization of pipeline and in-line portfolios
- Clinical trial design and regulatory pathways
- Clinical operations and asset optimization
- Product launch, go-to-market, and turnaround strategies
- Pricing and market access strategy
- Outcome-based collaboration arrangements

## Health systems and payors

- National/regional cancer strategy
- Real-world data capture and outcomes improvement strategy
- Clinical practice diagnostic vs. evidence base
- Cost allocation/outcomes maximization
- Identification of value pools and road map

# 3 Providers

- Cancer center design
- Cancer center strategy
- Diagnostic on clinical pathways
- Prioritization of interventions
- Operational improvement program

## Overview of our client impact

#### **Engagement types across functions**

Oncology engagements, 2012–17

Percent



#### We regularly work with

- Biotechs
- Cancer centers
- Nonprofit organizations
- Payors
- Pharmacos
- Private investors
- Wholesalers

Operating in all geographies including mature and developing markets, MNCs, and local players

#### Annual client engagements

- Over 100 pharma teams
- Over 20 hiotech teams
- Over 10 cancer centers
- ~5 navore/eveteme
- ~5 private equities/investors
- ~5 nonprofit organizations

local players

## 5 example stories of impact

## Changing the entire portfolio of a leading oncology player

#### Added USD2bn commercial revenues and increased R&D focus

- Supported carve-out of ~USD2bn oncology franchise
- Strengthened R&D capabilities and partnership in retained innovation unit
- Integrated portfolio into a ~USD10bn oncology franchise and out-licensed Phase II/III assets

## Delivering 1 of pharma's top-3 product launches

## Drove uptake of USD3bn blockbuster drug at 4x analyst expectations

- Defined launch readiness road map for regional organization and >15 affiliates
- Supported launch performance of USD300m first-year sales
- Closed country launch execution gaps and enabled 5x outperformance of analyst projections

## Building a cancer franchise from scratch

#### Built a >USD2bn oncology go-to-market franchise in 12 months

- Supported licensing deals and M&As worth USD3bn
- Blueprinted >150-person launch franchise with global, regional, and local organizations
- Supported integration of acquired oncology portfolio and organization

## Reducing cancer mortality by 10%

#### Saved 400 lives for colorectal cancer patients annually

- Redesigned care pathway in 5 health systems across the globe
- Identified care improvements to reduce mortality by up to 15%
- Defined cost savings opportunities of USD100m or 10% of health system spend annually

## Defining new ways for outcomes-based partnering

## Designed suite of completely new approaches for pharma to partner with systems

- Developed suite of over 400 solutions for outcomes-based partnering on different products
- Designed solutions to allow earlier patient access to specific medicines by several months
- Enabled availability of drug in multiple additional health systems

## Pharma example – building a cancer franchise from scratch



#### **Client description**

 Medium-sized US-based carve-out building oncology portfolio, organization, and market presence

#### **Engagement objectives**

- Define ambition for oncology business
- Build pipeline through business development
- Design oncology BU including customer facing functions
- Define go-to-market model

#### Unique/specific challenges

- Limited to no oncology portfolio or capabilities
- New company with limited or no relevant market history
- Rapid buildup required within 2-year time frame

## Approach

- Defined financial ambition, indication and technology focus, and growth road map
- Performed ca. 10
   McKCC Rapid DD
   modules for individual
   asset licensing
- Supported 1 large M&A strategic valuation
- Developed pipeline model and financial forecast
- Supported 2 product launch preparations
- Blueprinted organization and growth plan

#### Key elements of the solution

- 5-year growth plan and financial forecast including pro-forma P&L
- Tumor type focus for development and BD, MOA and technology selection and prioritization for research
- Rapid technical due diligence assessment and valuation of preclinical to Phase II assets
- Preparation for licensing discussions including value proposition and presentations
- Strategic valuation of 1 larger M&A, preparation for negotiation and subsequent integration support
- Development of launch readiness road map, broad launch readiness program in HQ and affiliate in US and Europe for 2 lead assets
- Specific resource ramp-up plan over time in HQ and affiliate informed by benchmarks and internal requirements

## **Impact**

- Built USD2bn vertical oncology business unit from scratch within 24 months
- 4 individual assets in-licensed and integrated into pipeline
- 1 successful M&A bringing in 2 assets in solid and haematological indications
- Full resource ramp-up and launch readiness of lead assets

## Health systems example – the Colorectal Cancer Improvement Program

## Background

#### **Client description**

- 5 health systems with goal to optimize cancer care
- Budget restrictions required cost neutrality

#### **Engagement objectives**

- Improve colorectal cancer care pathway through cost-neutral initiatives to reduce mortality
- Save on long-term healthcare costs by improving earlier detection

#### Unique/specific challenges

- Unique requirement to understand and map clinical pathway in detail
- Deep medical understandding and cost transparency to develop value pool tool
- Development of tool that for first time allowed to estimate costs and benefits of earlier detection

## Approach

#### **Ara Darzi (Chair)**

Imperial College, London

Former UK MoH

Colorectal cancer surgeon



- 1-year program to improve care in colorectal cancer
- Use data available in health systems
- Collaborative approach across project teams through frequent contact
- Identification of discrete value pools where cost per intervention did not match outcome benefit
- Reallocation of investment to most outcome effective interventions across pathway
- Improvement initiatives to capture value within 2 years

### Impact

		Mortality reduction Percent	Budget savings USD millions p.a.
<b>3 2 7 7</b>	NHS Lothian	~11	1–3
<b>3</b>	NHS Central South Coast Cancer Network	~10	4–6
<u>(:</u>	Singapore Ministry of Health	~11	7–10
	Queensland Department of Health	~9	10–25
	Victoria Department of Health	~9	15–30



## Overview of our scientific advisory board and internal expert infrastructure



#### **McKinsey Cancer Center Advisory Board**



Roy Herbst MD Anderson Cancer Center, Houston, US



**Eric Winer**Dana-Farber Cancer Institute,
Boston, US



Stan Kaye
Royal Marsden Hospital/Institute of
Cancer Research, UK



Ron Bukowski Cleveland Clinic Foundation, Cleveland, US



**Adrian Harris**UK Molecular Oncology Laboratories,
Oxford, UK



Philip Kantoff
Dana-Farber Cancer Institute,
Boston, US



**Ching-Hon Pui**St. Jude Children's Research Hospital, Memphis, US



Aymen Elfiky Harvard Medical School and Dana-Farber Cancer Institute, Boston, US



John Seffrin
Former CEO American Cancer Society



Jorge Cortes
MD Anderson Cancer Center,
Houston, US



**Al Benson** Northwestern University, Chicago, US



**Helmut Friess**Technical University of Munich, Germany



Robert J. Soiffer
Dana-Farber Cancer Institute,
Boston, US



**Tak Mak**The Campbell Family Institute,
Toronto, Canada



Peter Bach
Memorial Sloan Kettering Cancer Center
(MSKCC), New York, US



Manfred Dietel

Medical Director of the Institute of Pathology, Berlin, Germany



Vincent Miller Foundation Medicine, Cambridge, US



Ashish Kamat MD Anderson Cancer Center, Houston, US

## **)** I

#### Infrastructure and experts

- Consultant team of oncologist MDs, PhDs, and health system experts, each with 10 years consulting experience or more
- Dedicated service lines for strategy development, financial modeling, BD&L, IO, and others
- Team of analysts for market research, data analytics and modeling, pricing models, clinical trial design, and optimization
- Proprietary databases of competitor resourcing, RWE, disease pathways, organization
- Standing collaboration with Gerson Lehrman Group, Research Now, and AlphaSights

### McKinsey oncology publications – recent examples

Launches in oncology: The elements of success



Highlights recent changes in the market environment and their implications on successfully launching oncology therapies including competitive positioning, medical affairs support, stakeholder management, and operational excellence

Pursuing breakthroughs in cancer drug development



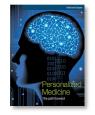
Describes key changes in the oncology drug development paradigm and the role of data as well as explores how companies can deliver the right medicines to the right patients faster. It also suggests 5 imperatives for relevant stakeholders and opportunities which arise as a result

The next wave of innovation in oncology



Highlights the new wave of therapeutic and diagnostic technologies making their way from the bench to clinic in oncology. This includes therapeutic technologies as well as diagnostic approaches such as personalized biopsies

McKinsey Personalized Medicine Compendium



Highlights critical issues facing pharma, biotech, and diagnostics companies in personalized medicine and provides perspectives on winning strategies for each type of player

McKinsey Health International on health systems and cancer



Outlines key challenges and proposes solutions for health systems as they set out to maximize their cancer budgets to get the best possible outcomes for their cancer patients

World Innovation Summit of Health (WISH)



A structured view on current and future challenges to fund cancer care and recommendations for improved funding across countries and potential socioeconomic divides

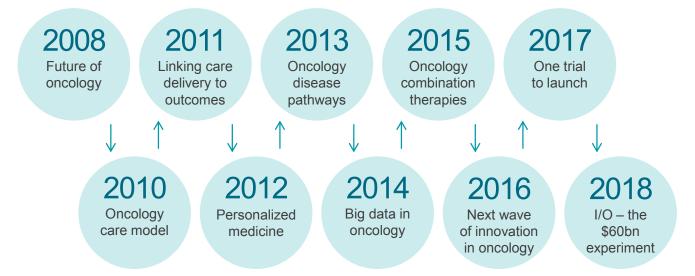
McKinsey pathway-based improvement of CRC care



Describes an approach to identify value pools along a disease-specific population-based prevention and care pathway that allows systemwide cost reallocation to create outcome benefit

## McKinsey Cancer congress series – annual satellite symposium at ASCO

#### Program topics over the years



#### **Participants**

- >150 clients from pharma and biotech industry, intermediaries, professional associations, and cancer centers
- Heads of global, regional, and US oncology business units, biotech CEOs, global functional leads, world-leading clinician scientists





## Suite of platforms we offer – novel tools and methodologies



#### Cancer labs



Cancer data and advanced analytics



## Cancer access and outcomes



## Cancer strategy and go to market

New platforms for rapid market insights and data analytics

Data aggregation and analytics platform for advanced analytics and insights generation Innovative market access strategies and capability building programs

Growth strategy simulation platform and innovative GtM approaches

- Rapid, quantitative high-prescriber market research and analysis
- Big data analytics including real-world evidence, patient finder, etc.
- Data aggregation from over 30 databases covering >10m cancer patients combining EHR, RWE, PRO, consumer, and other data
- Advanced analytics platform including machine-learning insights generation
- >400 treatment pathway-based collaboration models across >10 tumor types for pharma, medical device, and payors
- Comprehensive oncology market access academy with multiformat capability building programs
- Ready-made growth strategy frameworks, portfolio simulation and P&L modeling
- Suite of innovative goto-market approaches across different tumor types and geographies



#### Cancer IO/ MIOSS



- Simulation engine forecasting multiple different IO market scenarios to inform strategic and competitive decision making
- Clinical trial and indication sequencing, combination therapy design, and IO asset ownership simulations



Cancer rapid DD

Approach to rapid asset/technology due diligence and forecasting

- Highly detailed rapid DD on preclinical, clinical, and inmarket assets
   Pipoline screen model and
- Pipeline screen model and refined forecasting for assets and portfolios



## Cancer drug development/CAO

Suite of assets to optimize clinical development strategies for single assets or asset portfolios

- Optimizer tools and approaches to optimize clinical strategy design and execution
- TPP and TVP design approaches and clinical outcome scenario modeling approaches

# Cancer labs – rapid quantitative market research reaching 250–300 prescribers in 5 days



## Large-scale, multicountry cancer survey ...

#### **Major cancer types**

- Prostate
- Lung
- Breast
- Colorectal
- Other available upon request (e.g., CLL, CML, MM)

#### **5 EU countries**











## Other international markets











#### >50 participants

 Up to 50% cheaper than other providers plus real insights and synthesis

#### Cost level

Sample size of 50 high prescribers/country is guaranteed

#### >15 questions

- At least 15 closed questions
- Further (open) questions may be asked with marginal price increase

## ... with rapid, 5-day turnaround

#### **Deadlines Steps** Team hands over questionnaire and sample Questionnaire parameters – quick quality check **Programming** Questionnaire is programmed and tested, launched the next day **Fieldwork** Physicians fill out questionnaire – McKinsey ensures completion based on predefined sample parameters **Database** McKinsey checks and filters data and completes Friday/next Monday check final database for analysis

# Cancer data and AA – data aggregation and analytics platform for advanced analytics and insights generation





#### Broad and exclusive oncology data sources

#### McKinsey common data model McKesson CROSSIX Specialty Health The US Oncology Network explorys Commercial secondary SERMO **TRUVEN** data **TriNetX health**verity **HARVARD Academic** institution Regenstrief partnerships Guardian Institute **Public data** sources CRM data through Veeva, SFA system Client-Patient hub data Specialty pharmacy partnership data provided IQVIA, SHS data Social media/patient forum partnerships

#### **Key benefits**

- Integration of disparate data into centralized, flexible repository
- Combination of medical, consumer, and behavioral data for patients and HCPs
- Holistic model development and production through integrated commercial data sources.
   Academic data to monitor ongoing model robustness
- Late binding ("schema on read")<sup>1</sup>
- Large processing power for advanced analytics and signal detection on proprietary cloud- based platform
- Ease of portability to client environment for enterprisewide scale-out

## > 1

#### Proprietary machine-learning platform



- Automated research engine and machine- learning platform "Nerve"
- Extensive function library with feature discovery and optimization
- Machine learning with algorithm selection and model visualization

### Multiple oncology use cases

- Patient segmentation refinement through analysis of 39m behavioral patterns to double brand potential
- Trigger-based deployment for field team via type and frequency of lab reports linked to anonymized patient data
- Segmentation-of-one for uro-genital oncology sales force via patterns in Rx behavior
- Real-world-evidence data-analysis-driven FDA application for data expansion

<sup>1</sup> Schema on read refers to an innovative analysis strategy in new data-handling tools like Hadoop and other more involved database technologies. In schema on read, data is applied to a plan or schema as it is pulled out of a stored location

# Cancer access and outcomes – innovative market access strategies and capability building programs

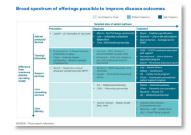


#### Innovative market access strategies

- Population pathways by tumor type based on international guidelines and literature
- Critical interventions along pathway and quantification of cost and outcome benefit
- Identification of opportunities for care optimization, cost reallocation ("value pools"), and respective solutions for health systems and pharma/biotech/device
- Collection of >400 products and services pharmaceutical companies and healthcare institutions offered beyond conventional drug-selling model
- Categories C include add-on products/ services, training/education, support services, care consulting services, care delivery



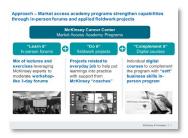




## >

#### Market access capability building academy

- Customized academy learning programs teaching functional and business skills
- Multiformat nature reflecting best practices of adult learning including in-person forums, fieldwork, coaching, and digital courses via McKinsey Academy
- Balance of functional topics, business and leadership skills, format and timing can be fully tailored to specific client needs
- Field work tailored to and focused on key business deliverables for respective functional teams
- Program size from 30 to over 100 participants ranging from 4 months to over 1 year
- Train-the-trainer concept for continuous program delivery, renewal, and expansion as needed







# Cancer strategy and go-to-market – growth strategy simulation platform and innovative GTM approaches





#### Cancer strategy – elements and use cases

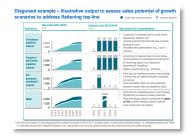
#### Platform to develop winning growth strategies from R&D to commercialization Elements Use cases

- Strategic growth frameworks and approaches
- Forecast engine for portfolio scenario modeling
- BD&L contribution assessment
- Pro-forma P&L output

- Oncology strategy refresh or de novo franchise launches
- Competitive scenario modeling
- Asset or portfolio lifecycle management assessments
- BD&L strategies and screens
- Portfolio asset balancing and resource (re-)allocations









#### Cancer go to market - available modules

#### Launch excellence

 Suite of launch excellence modules including launch readiness framework and Web-based tracking tool, organizational approaches, case example library, launch uptake analytics



#### **Go-to-market innovation**

- Collection of innovative go-to-market approaches to support field-based teams based on patient and physician journeys
- Digital and advanced analytics approaches, solutions beyond the pill, innovative partnering



## Commercial resource modeling

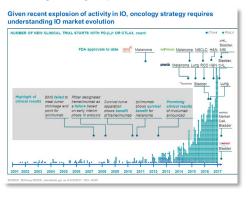
- Modeling engine to predict field synergies across tumor types
- Quantification of incremental field resources required based on prescriber overlap



# Cancer IO/MIOSS – comprehensive deterministic scenario modeling engine for IO assets and portfolios



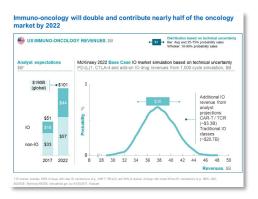
## Extremely rapid evolution of IO market with nearly daily updates



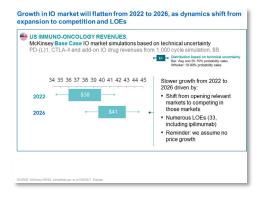
## MIOSS simulates market and portfolio scenarios



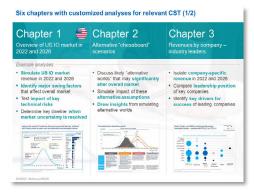
## Rapid market growth predicted until 2022 ...



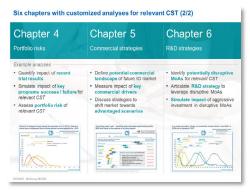
## ... with subsequent shift to competition for share



## MIOSS offers market forecasting and portfolio simulation ...



## ... as well as risk assessment and functional strategy development



MIOSS - McKinsey Immuno-oncology Strategy Simulation

# Cancer rapid DD – proven track record serving clients in rapid DD from preclinical to on-market assets



Stage of asset	Example client situation	Scope
Preclinical/ discovery	<ul> <li>In-licensing assessment for an emerging technology platform in discovery phase in the space of immuno-oncology</li> </ul>	<ul> <li>Scientific diligence on MOA</li> <li>Best-guess development pathway</li> <li>Valuation model (analog based)</li> </ul>
Pre-POC	<ul> <li>In-licensing assessment for a Phase I oncology asset (with data room access)</li> </ul>	<ul> <li>Potential clinical differentiation from standard of care and new pipeline</li> <li>Scientific rationale for indication/line expansion</li> <li>Valuation model (bottom-up, patient based)</li> </ul>
Post-POC	<ul> <li>In-licensing assessment for a Phase III oncology asset post data readout (with data room access)</li> </ul>	<ul> <li>Phase III clinical data review and differentiation from standard of care and new pipeline</li> <li>Assessment of new indications/lines of therapy</li> <li>Valuation model (bottom-up, patient based)</li> </ul>
On-market	<ul> <li>M&amp;A assessment for an on-market drug</li> <li>Use cases for rapid DD are not only in BD situations, but</li> </ul>	<ul> <li>Assessment of new competitive pipeline</li> <li>Pricing sustainability</li> <li>Threat from biosimilars</li> <li>Pressure testing lifecycle management plan</li> </ul>

#### **Analog drug database**

 Database of over 1,000 drug launches systematically characterized by >20 variables

also in major stage-up

decisions for internal pipeline

#### Valuation model solution

 Drug valuation engine for both pre-POC assets and post-POC assets

#### Forecasting in a box

 Comprehensive playbook and toolkit for drug forecasting

# Cancer drug development/CAO – suite of assets to optimize clinical development strategies for single assets or asset portfolios



#### What does CAO do?

#### **Archetypes Description**

## Product development strategy

- Comprehensive program design for commercial success
- Applicable to all asset stages from pre-POC to market

#### Portfolio decisions/ capability building

- Portfolio strategy and investment decisions
- Organizational capability building
  - Expertise transfer
  - Tools and processes
  - Operational acceleration

## Investment due diligence

- Targeted decision support, e.g., asset acquisition or stage gate advancement
  - Objective, fact-based analysis
  - External validation
  - Framing and evaluation of business, clinical, etc., trade-offs

#### Impact examples

- Complete program redesign for 2 pre-POC assets; USD150–250m savings, >3 years acceleration
- Lifecycle management clinical trial strategy for lead asset; USD300–500m additional peak sales opportunity
- Oncology portfolio and asset strategies for several top-10 pharmacos
- Several NDAs filings for midsize pharmacos (all approved)
- Development strategy ahead of POC investment decision for several oncology assets
- Definition of POC stage gate criteria for 3 assets across MOAs
- Multiple asset evaluation projects

#### **Guiding principles for asset optimization**

### Identify risks

Identify, disaggregate, and prioritize risks inherent to the asset based on TPP and research results De-risk • early

What it is

- Further stresstest prioritized risks, prior to starting Phase III
- Stop projects early if success in Phase III is questionable

### Maximize • value

- Shorten time to market and aim for the indication with the greatest market potential by optimizing indications, inclusion criteria, and end points
- Optimize TPP for a suite of indications and LCM strategies, ensuring that the first indication allows appropriate expansion
- Broaden indication later to fully leverage drug's potential

#### Tool

### Asset strategy optimizer



Cross-functional methodology for meeting commercial differentiation goals while optimizing for speed, cost, and feasibility

## Risk optimizer



Practical **risk management methodology** to assess, prioritize, and mitigate most important risks among strategic, operational, and organizational ones

### Cost optimizer



Objective and independent evaluation and optimization of major trial design cost drivers (e.g., number of sites, monitoring visits, recruitment length)

## Trial design optimizer



**Strategic trial design and stats analysis planning** to ensure trials support the achievement of a differentiated TPP

### Speed optimizer



Comprehensive program for accelerating trials based on analysis and optimization of most relevant subactivity in design, execution, and filing phases

## Clinical program advisory board



**Industry-leading experts** available at a short notice for workshops and due-diligence-style inquiries

- Frame and quantify trade-offs among cost, speed, PTS
- Focus on the decisions that can change the course of a program
- Foster an internal culture of crossfunctional collaboration and disciplined decision making

## Our leadership team covers the Americas, Europe, and Asia with over 150 years of experience

#### **Europe**



Bjorn Albrecht, PhD (Lead McKCC)

Partner, London

(Post-)doctoral research in molecular oncology, Leukemia Society Fellow, 20 years of oncology



Thomas Rudolph, MD

Senior Partner, Stuttgart

Medical training and specialization in oncology, >20 years of experience



Philippe Menu, MD, PhD, MBA

Associate Partner, Geneva

Medical and research training in oncology, >10 years of experience



Sébastien Allard, MBA Associate Partner, Geneva

Oncology market access and outcomes expertise, >5 years of experience



Stephan Wurzer, PhD

**Engagement Manager, Munich** 

Oncology research in cancer stem cells, 5 years of experience







Minyoung Kim, MD, MBA

Partner, Tokyo

Business unit and local oncology strategy and commercial expertise, >10 years of experience



Tina Hou, MBA

Partner, Shanghai

Local oncology strategy and regulatory expertise, 10 years of experience



Gaobo Zhou, MS, MBA

Partner, Hong Kong

Local oncology strategy and commercial expertise including health system, >5 years of experience



Yukako Yokota, PhD

Partner, Tokyo

Local business unit and product strategy. 5 years of experience

#### North Americas



Laura Furstenthal, PhD

Senior Partner, San Francisco

Doctoral research in cancer biology, >20 years of oncology experience



Olivier Leclerc, MBA

Senior Partner, Los Angeles

Oncology strategy, launch, and commercial expertise, >15 years of experience



Paul Gurney, PhD

Partner, San Francisco

Commercial and go-to-market as well as value in oncology expertise, 10 years of experience



Kevin Webster, PhD

Associate Partner, San Francisco

Diagnostics and personalized medicine, biomarkers, >5 years of experience



Flora Yu, MBA

Associate Partner, Silicon Valley

Business development and strategy expertise, >5 years of experience



Lydia The, PhD

**Engagement Manager, Silicon Valley** 

Immuno-oncology, PD-1 and CAR T-cells, overall and R&D strategies, >5 years experience



**Dmitriy Kolodin, PhD** 

**Engagement Manager, Los Angeles** 

Commercial immuno-oncology expertise and business unit strategy experience, >3 years of

experience



**Guang Yang, PhD** 

**Engagement Manager, Charlotte** 

CAR T-cell, Immuno-oncology, asset-optimization expertise, >5 years of experience



Sandra Andersen

**Engagement Manager, New York** 

Oncology strategy, launch, and GTM innovation,

>3 years of experience

#### **Dedicated experts**



Daina Graybosch, PhD

Senior Expert, New York

Doctoral research in oncology, immuno-oncology, and clinical development expert, >15 years of experience



Keval Chauhan, MS, MEng Senior Analyst, London

Commercial, corporate finance, and strategy expertise in oncology, 4 years of experience



Jason Hichborn

Specialist, New Jersey

Commercial, market access, and digital expertise,

4 years of experience



**Tiffany Kwok** 

Advanced analytics Expert, Tokyo Clinical and commercial analytics expert, 5 years

of experience