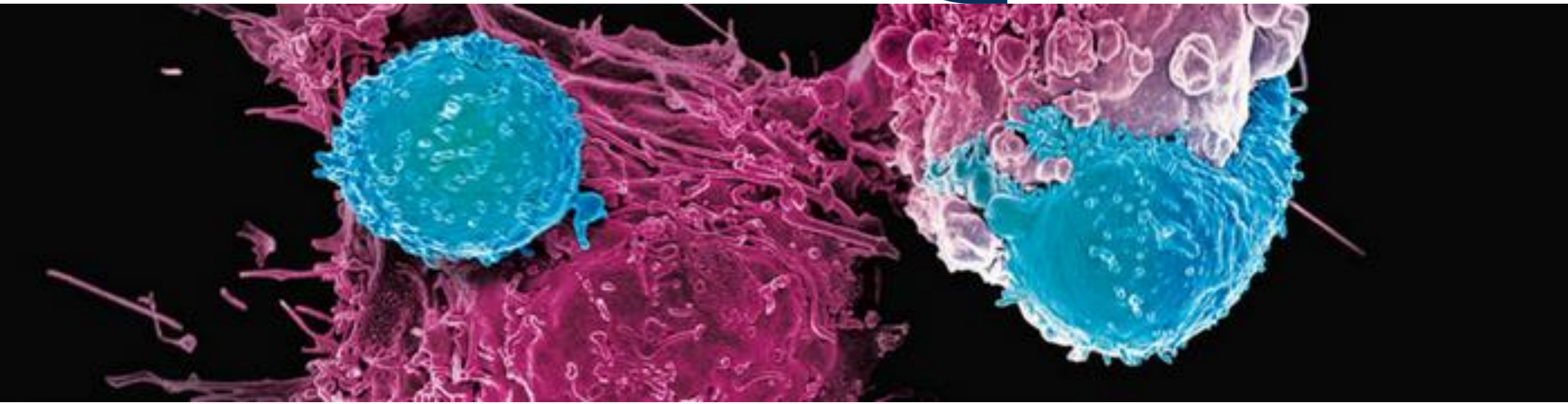
Personalized Cancer Immunotherapy

T-CURX



Key considerations and strategic steps to ensure successful and timely execution when planning your first clinical trial as a start-up company!

Cornelia Baumgartner

Clinical Operations Manager at T-CURX

I'll provide insights into...

- Assembling a powerful team within your company
- Choosing the right partners, including CROs, vendors, and sites
- Understanding the timeline from the initial idea to the first patient enrolment
- Creating a realistic project plan and budget
- Gaining a thorough understanding of the regulatory and competitive landscape
- Carefully considering the design of your trial, patient availability,

  the number of patients needed, and the number of sites/countries involved

What factors do you take into account when embarking on a journey?

1. Where do we want to go? - Plan your route
2. What can we spend? - Set up a budget
3. Do we have the required docments? – Passport and/or visa
4. Do we need additional vacination? - Where are embassies or hospitals?
5. Set up the logistics. - Book flights, trains and hotels.
6. Communication – What lanuageskills do we need, how can we stay connected?
7. Pack our bag - What do you need? Snow boots or a bikini?

It is not that different from a clinical trial!

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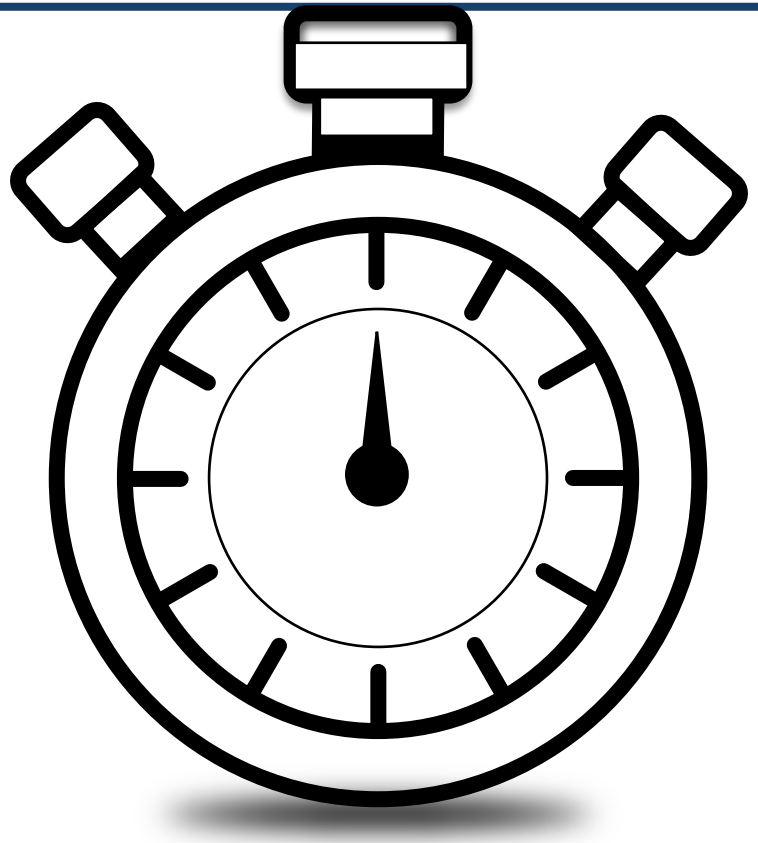
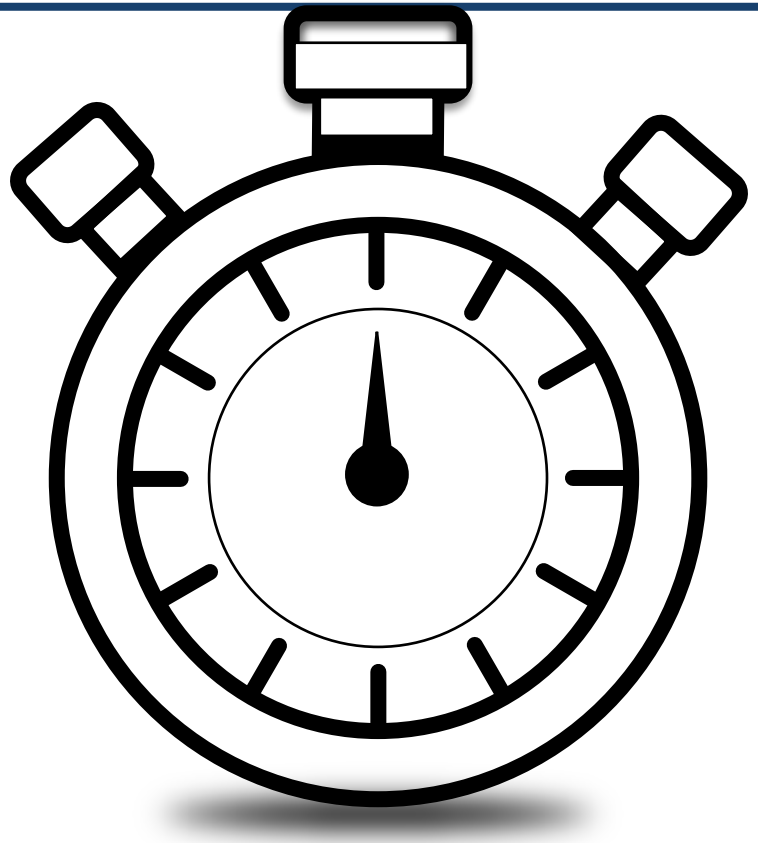
If you are planing a travel you often count down the time until you’re setting sails…



STOPWATCH

COUNDOWN

As a start up biotech you are down for the count!



STOPWATCH

COUNDOWN

You ask me why?

- You want to have the first mover advantage
- Patents are not infinit
- You’re most certainly on a low budget and Investors keep telling you, once you have data….
- You want to shorten the development timelines
- You want to stay ahead of competition
- Foremost, you think about the patients out there who could benefit from your treatment!

COUNDOWN

What I would like to show you, is how you can slow the count down!

- Set up your team
- Select your vendors wisely
- Plan you study
- Keep your study simple
- Timelines and budget
- Select the right sites
- Plan the regulatory submission
- Manage the risks

Set up your team

Do you think Roger Federer would have been as successful if he had only relied on himself?

And he as well….

I bet he had a team of experts:

- A tennis coach
- A fitness trainer
- A conditioning and strengh coach
- A physiotherapist and a massage therapist
- A communication specialist
- Etc.

And bet what…. He too

Absolutely mindblowing, isn’t it?

Is it just coincidence…

…or is there an underlying system at play?

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There is an underlying system at play!

You too need a team of specialists!

Medical Director/ Chief Medical Officer

Clinical Operations Manager

- Quality Assurance Manager
- Regulatory Manager

Statistician

Legal team

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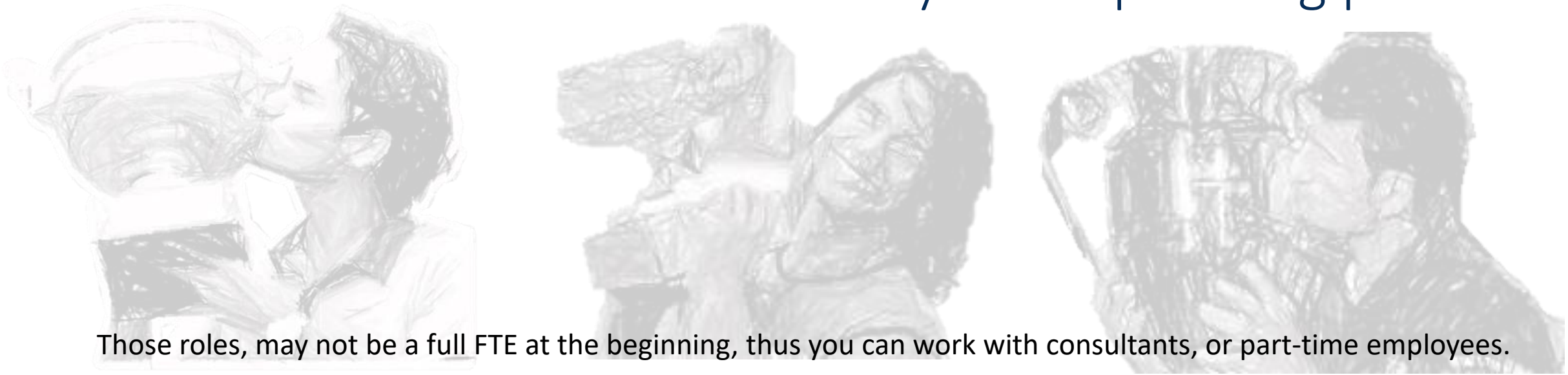
Onboard key players like..

Medical Director/ Chief Medical Officer

Clinical Operations Manager

…early in the planning phase!



Those roles, may not be a full FTE at the beginning, thus you can work with consultants, or part-time employees.

Key Responsibilities of a Chief Medical Officer (CMO)

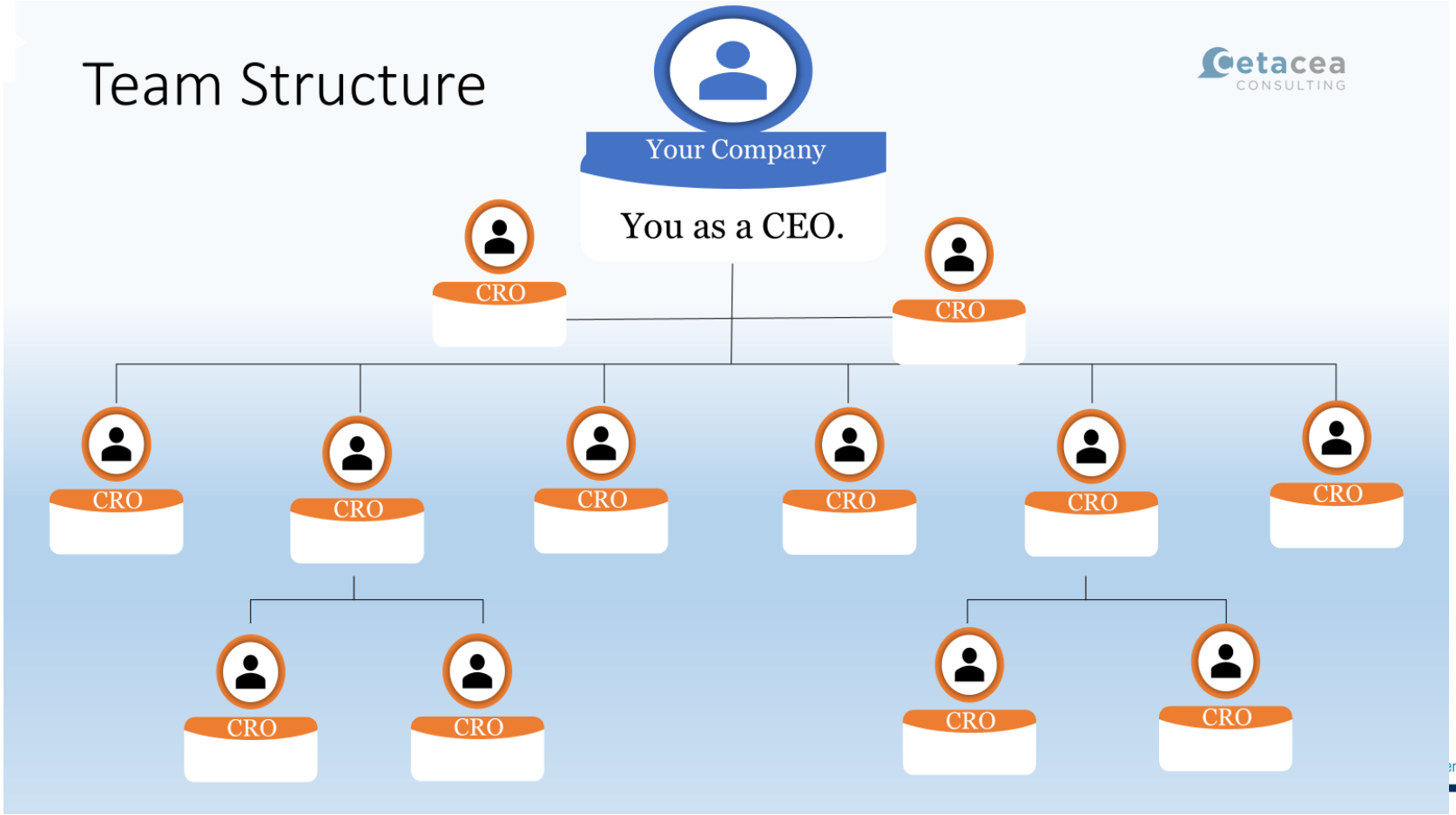
1. **Develops Clinical Strategy:**
    - Designs and implements the clinical strategy to support the company's drug development pipeline, ensuring alignment with corporate objectives and regulatory standards.
2. **Stakeholder Communications & Key Opinion Leader (KOL) Engagement:**
    - Builds and maintains a network of **Key Opinion Leaders** (KOLs), thought leaders, and scientific advisors to guide clinical programs.
    - Communicates effectively with **investors**, **regulatory bodies**, and **partner organizations** to foster collaborations and ensure transparency.
    - Presents research findings and clinical progress at **scientific congresses** and **medical conferences**, enhancing the company's visibility within the scientific and medical communities.
3. **Knowledge of Therapeutic Landscape:**
    - Maintains in-depth knowledge of the **therapeutic landscape**, including **competitive trials**, **standard-of-care therapies**, and ongoing developments in the relevant indications.
4. **Clinical Protocol Development:**
    - Authors or oversees the development of **clinical protocols**, ensuring scientific rigor, regulatory compliance, and alignment with clinical trial goals.
    - Defines **primary and secondary endpoints** as well as **study objectives** that are aligned with the regulatory and commercial strategies of the company.
5. **Clinical Operations Support:**
    - Works closely with the **Clinical Operations Manager**, providing expertise in study document development, clinical database set-up, and selecting and managing vendors, such as **CROs**, labs, and central services

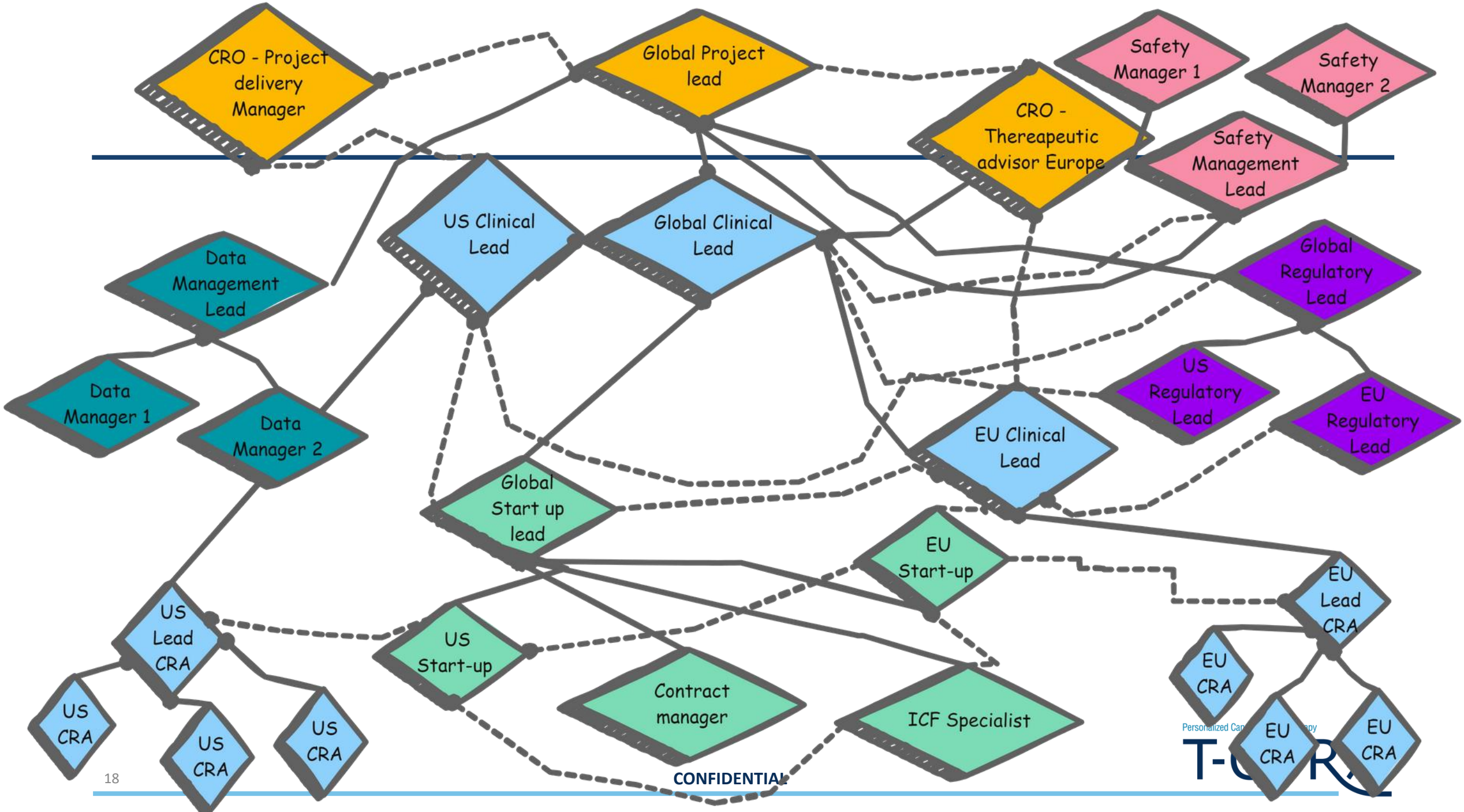
Key Responsibilities of a Clinical Operations Manager

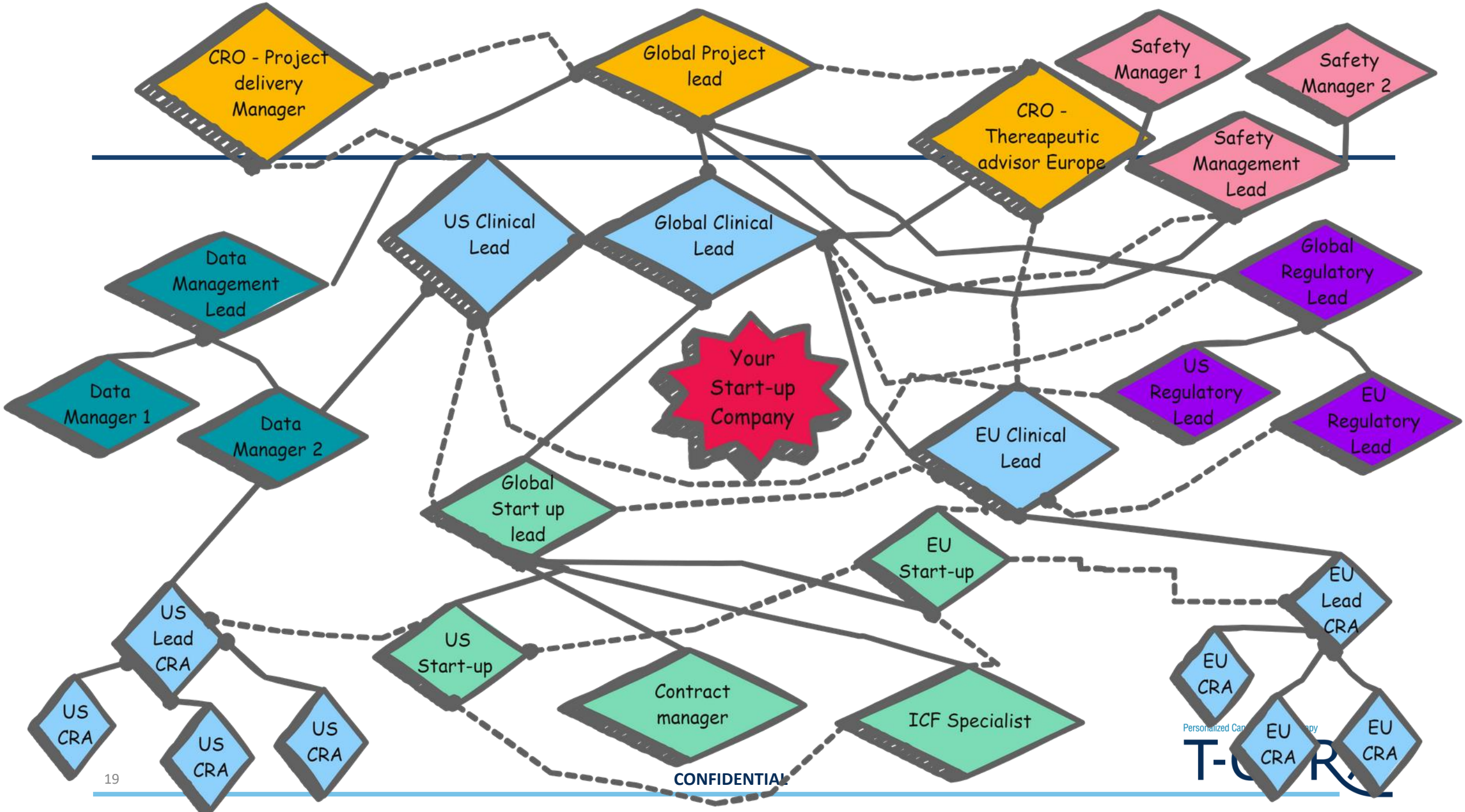
1. **Supports the Protocol Writing Process:**
   - Collaborates with the medical team to assist in the development and refinement of the clinical protocol, ensuring operational feasibility and alignment with regulatory requirements.
2. **CRO, Vendor and Site Selection:**
   - Leads or participates in the selection process of **Contract Research Organizations (CROs)** and other key vendors (e.g., labs, data management, logistics) based on their capabilities, expertise, and cost-effectiveness.
   - Identifies and evaluates potential clinical trial sites based on their experience, patient population, infrastructure, and previous performance in similar studies.
3. **Database Build:**
   - Oversees the development of the **electronic data capture (EDC)** system and ensures that the clinical database is designed and built in accordance with the study protocol and regulatory standards.
4. **Regulatory Submission Support:**
   - Works closely with the regulatory team to ensure all necessary documents (e.g., protocol, investigator's brochure, informed consent forms) are prepared for submission to regulatory authorities and ethics committees.
5. **Site and vendor Contracting:**
   - Coordinates the contracting process with clinical trial sites , ensuring that site agreements, budgets, and necessary documents are negotiated and finalized in a timely manner.
6. **Budgeting:**
   - Develops and manages the clinical trial budget, ensuring that all costs are accounted for and that spending is in line with financial expectations.
7. **Study oversight**

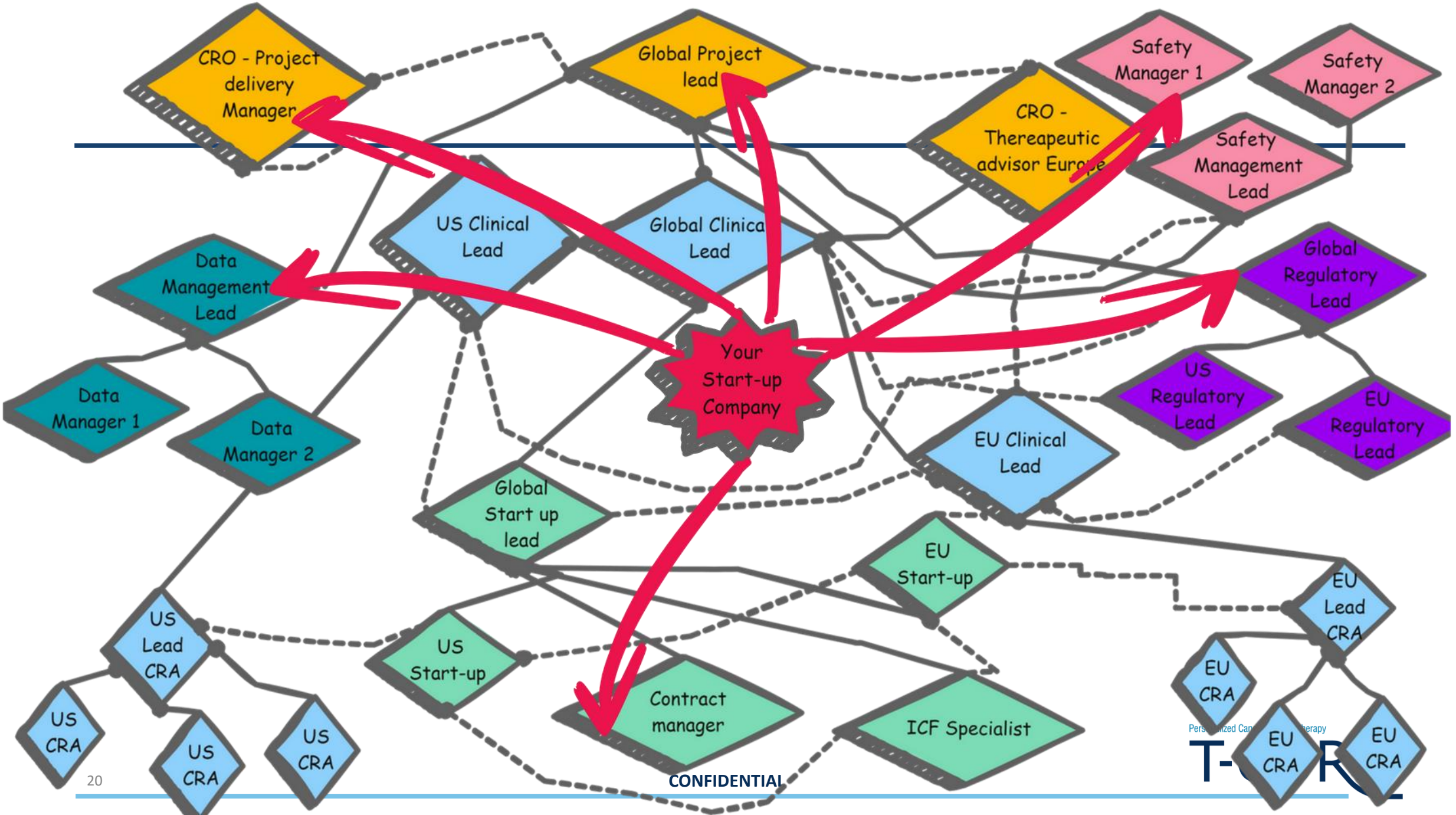
CRO/ Vendor selection

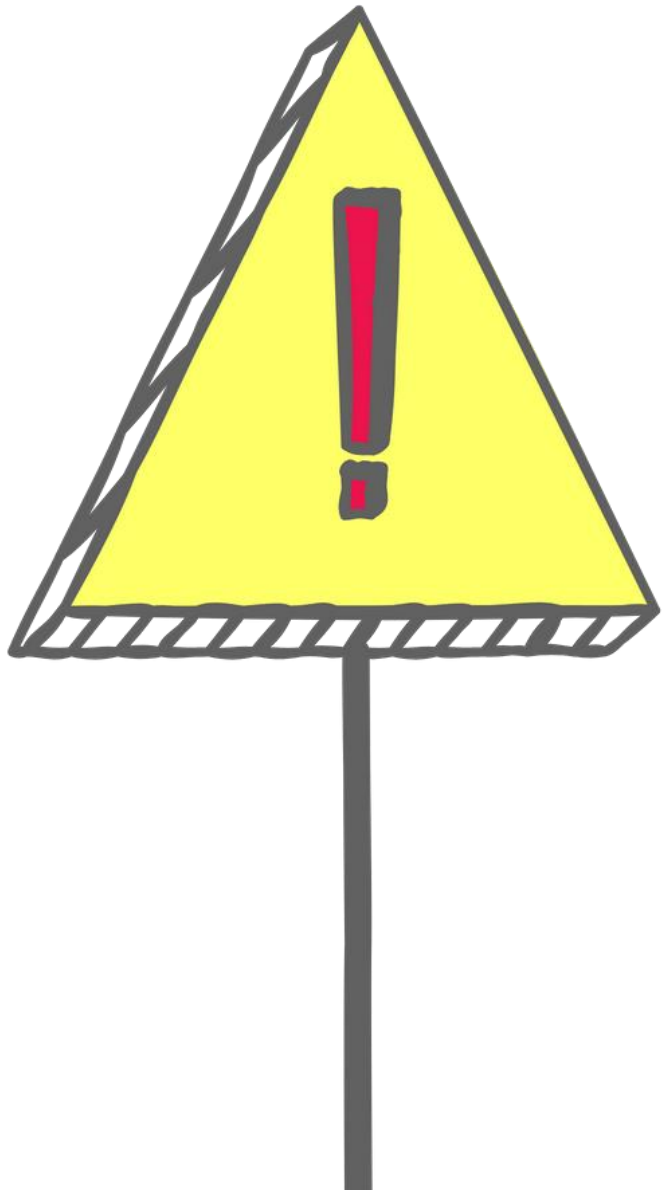
If you are still questioning, why you need an internal team, as you have a CRO!





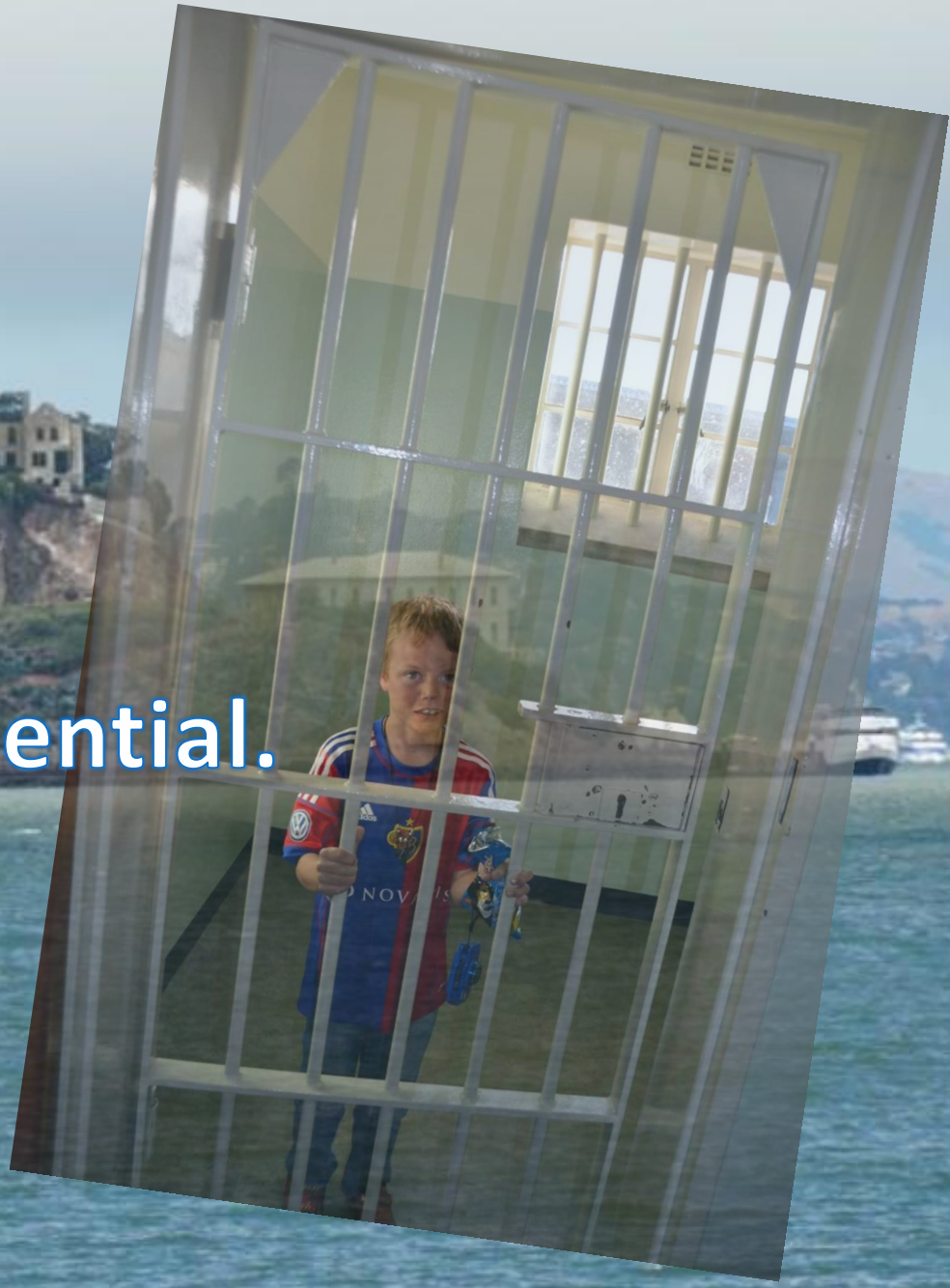






A sponsor may transfer any or all of the sponsor's trial-related duties and functions to a CRO, but the ultimate responsibility for the quality and integrity of the trial data always resides with the sponsor.

Regardless, having a CRO is essential.



However, a CRO might not always share the same priority of completing the study as quickly as you

Just consider their pricing models. There are fixed costs, such as:

- Monthly Project Management Fees'
- Database and License Fees'
- Administrative Fees'
- Medical Monitoring Fees'
- 24-hours EDC-Support or Safety coverage

Nevertheless, CRO's are the most important partners on your journey!
So let's select them wisely!

Choose your CRO/ vendors carefully

A selection Process in 4 steps

1. Preselect CRO's/ vendors according to your study needs!
   - Global reach/ footprint
   - Experience in the indication?
   - Your previous experience with the CRO
2. Create a request for proposal document, including:
   - A description of the company and the IMP
   - The study synopsis
   - Add what you expect from your vendors (task assumption list)
   - Add the study specification, like nr. of countries, sites, patients, nr. of visits, central lab needs, Imaging, ePRO, etc.
3. Compare the proposals
4. Have a bid defense meeting

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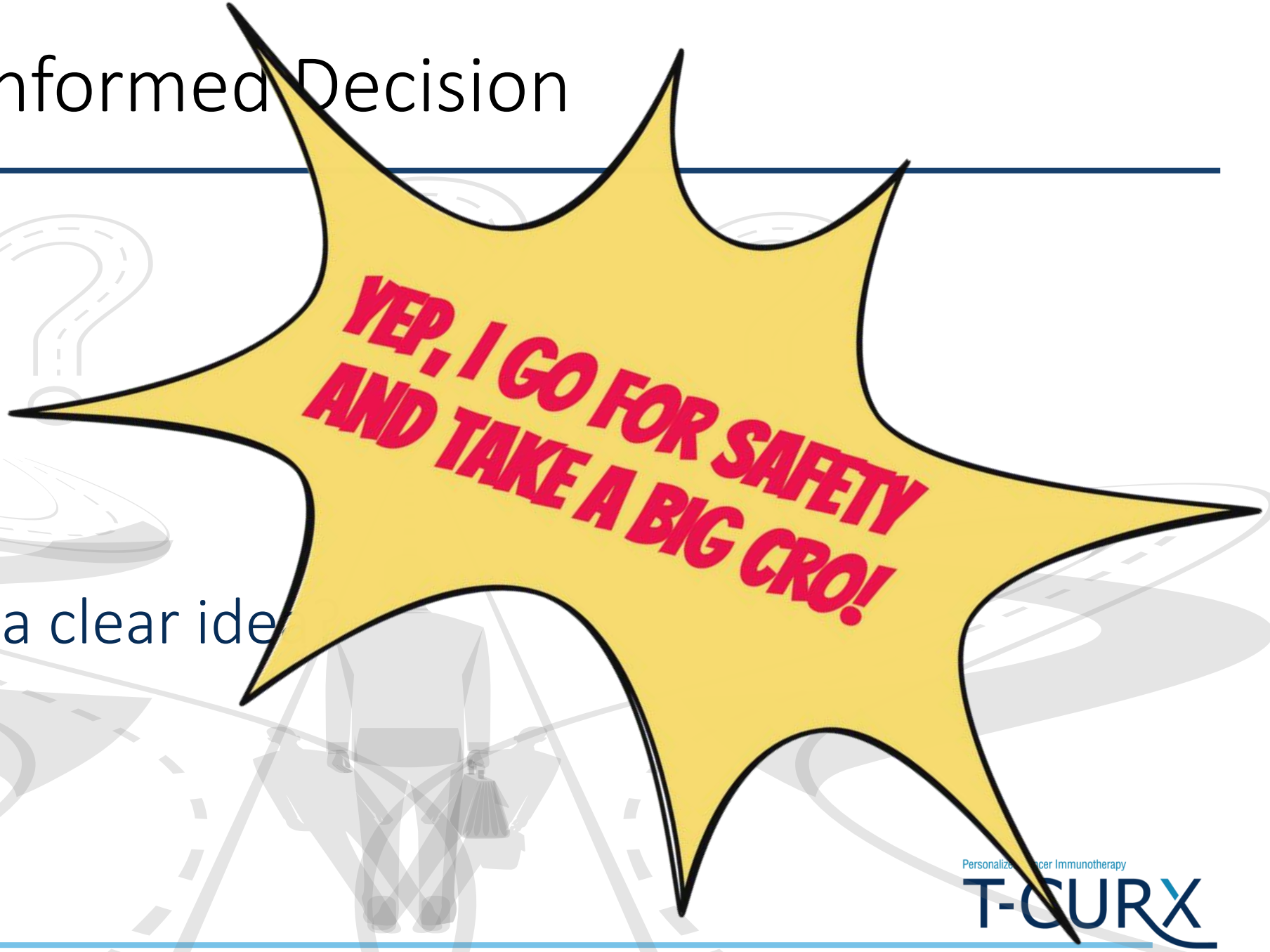
Making an Informed Decision



Do you have a clear idea

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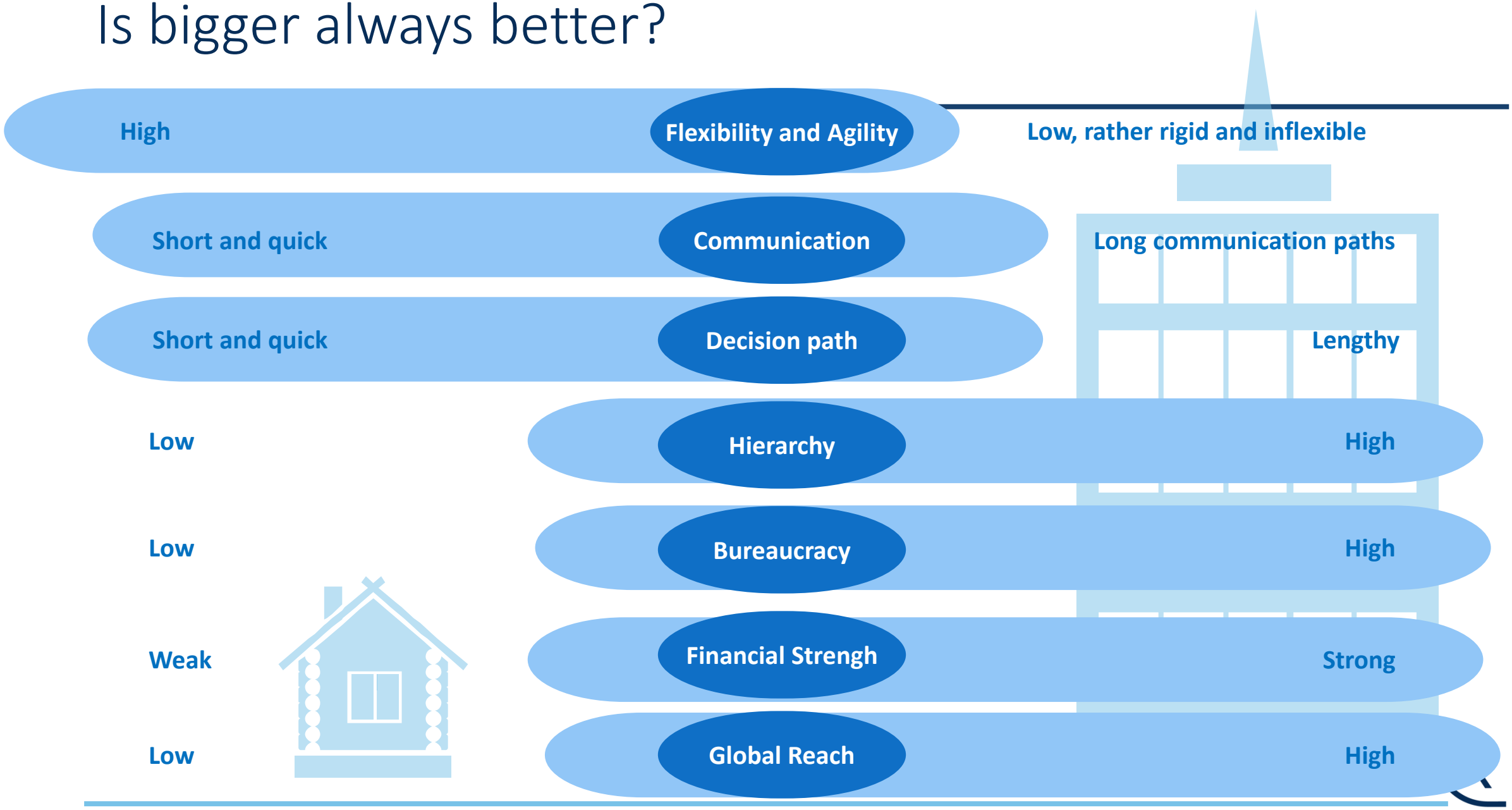
Is bigger always better?



Reflect on your strenghts and study needs!

Remember we are down to count…

To slow down the countdown

- We are seeking a partner aligned with our study needs and company structure!
- We need to choose a partner for today's needs, not for uncertain future studies!

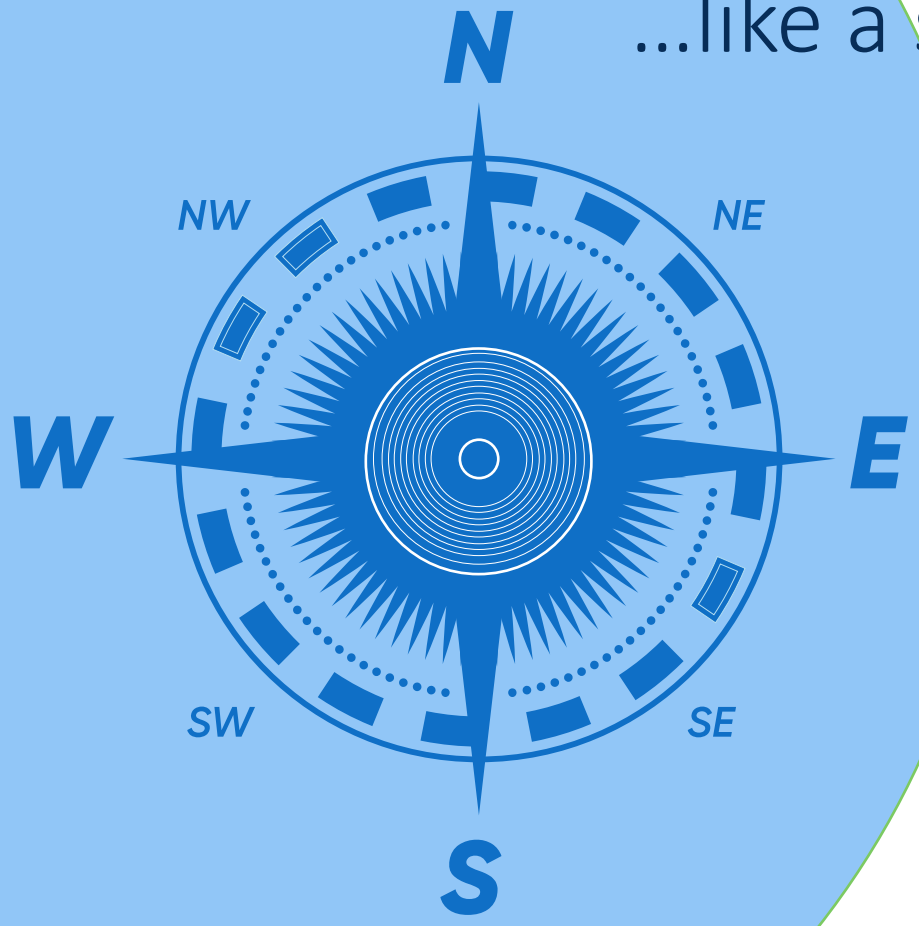
COUNDOWN

It Takes as much energy to wish as it does to plan!

Eleanor Roosevelt

Creating a realistic project plan and budget

Chart your course for the study and drug development…



…like a seasoned captain is navigating the seas!

- Start Early - Act don’t react
- Keep it simple
- Collect relevant data
- Set relevant endpoints and objectives
- Know your timelines
- Know your product and the competition

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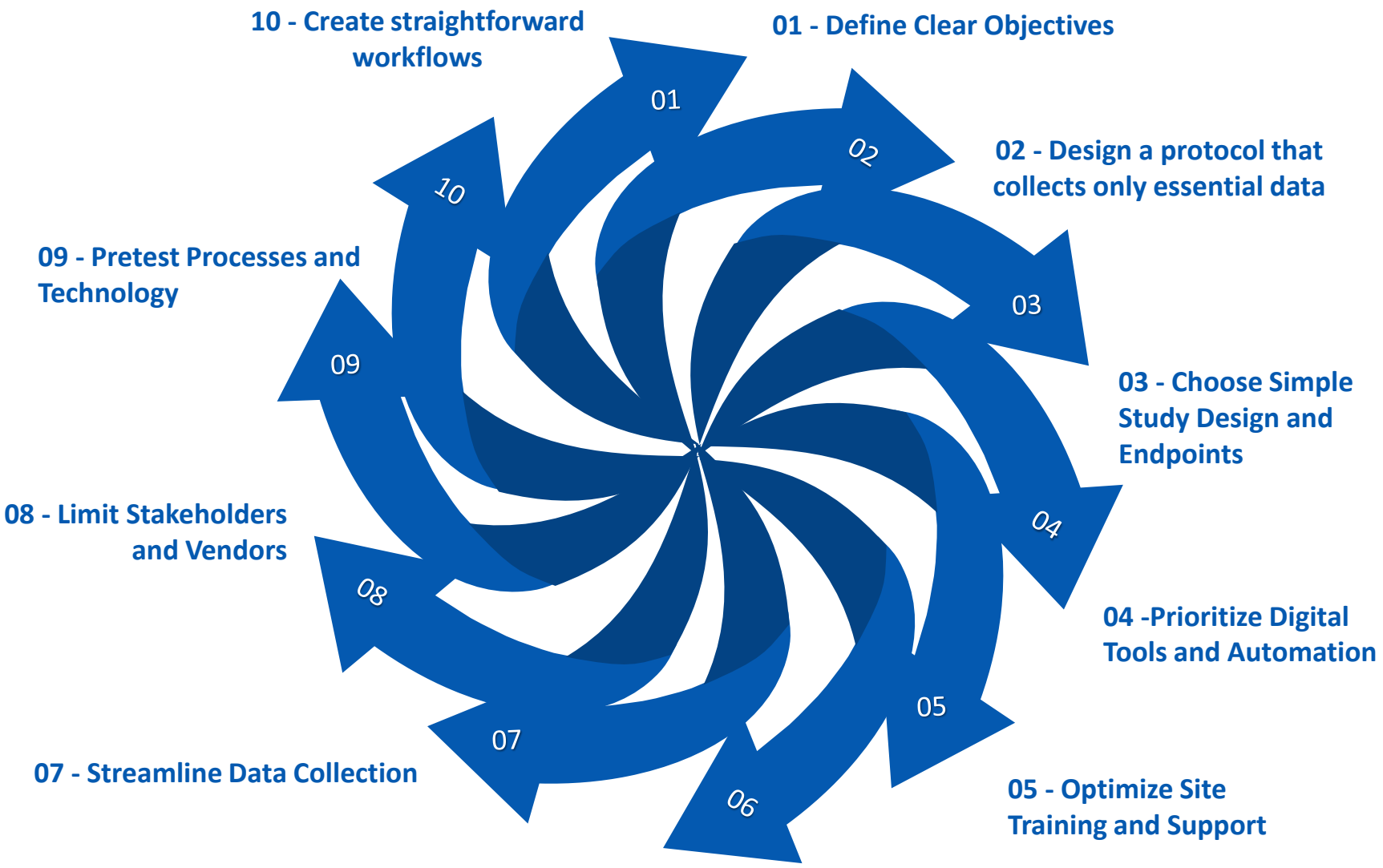
Simplicity wins



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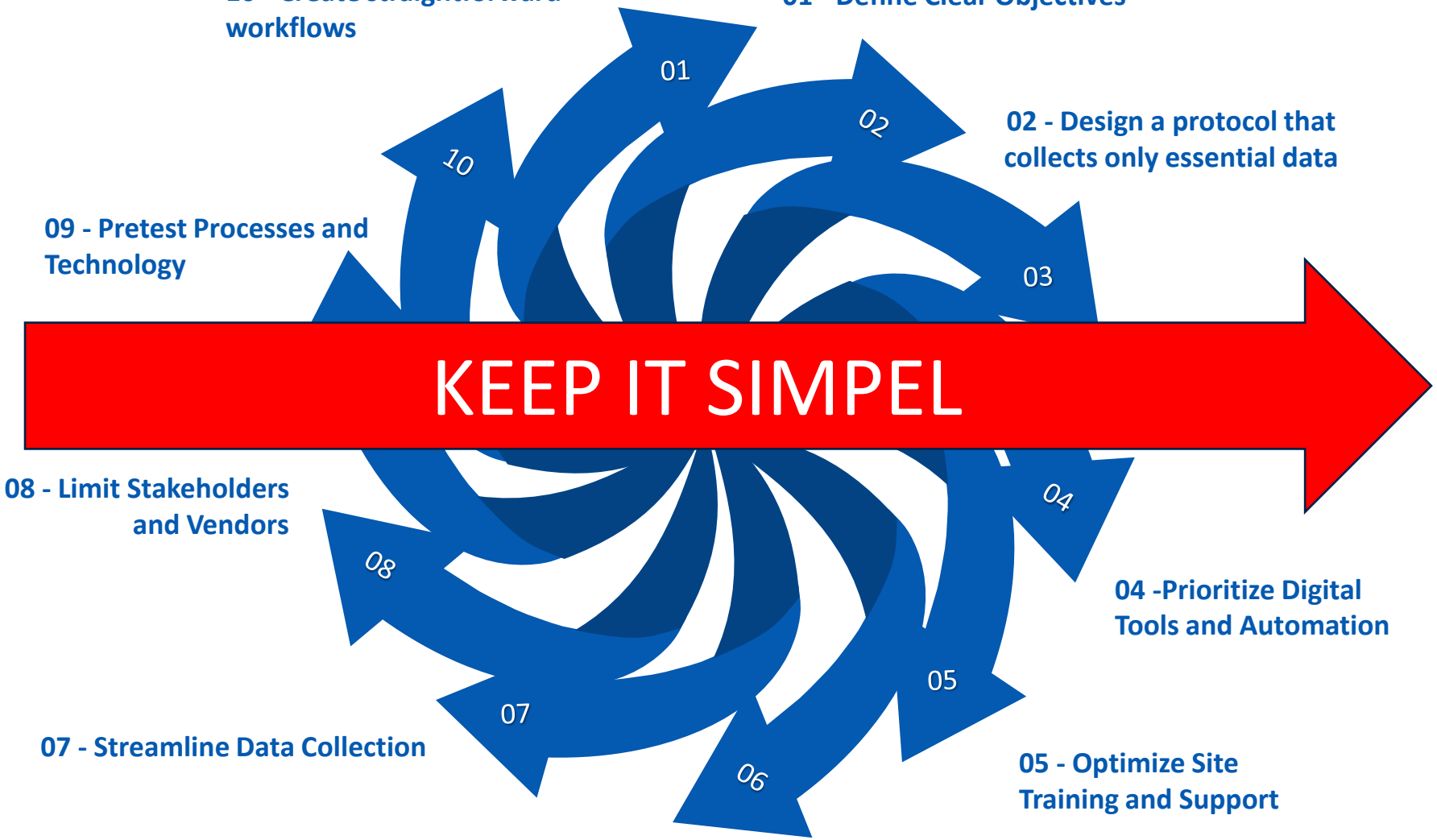
Simplicity wins



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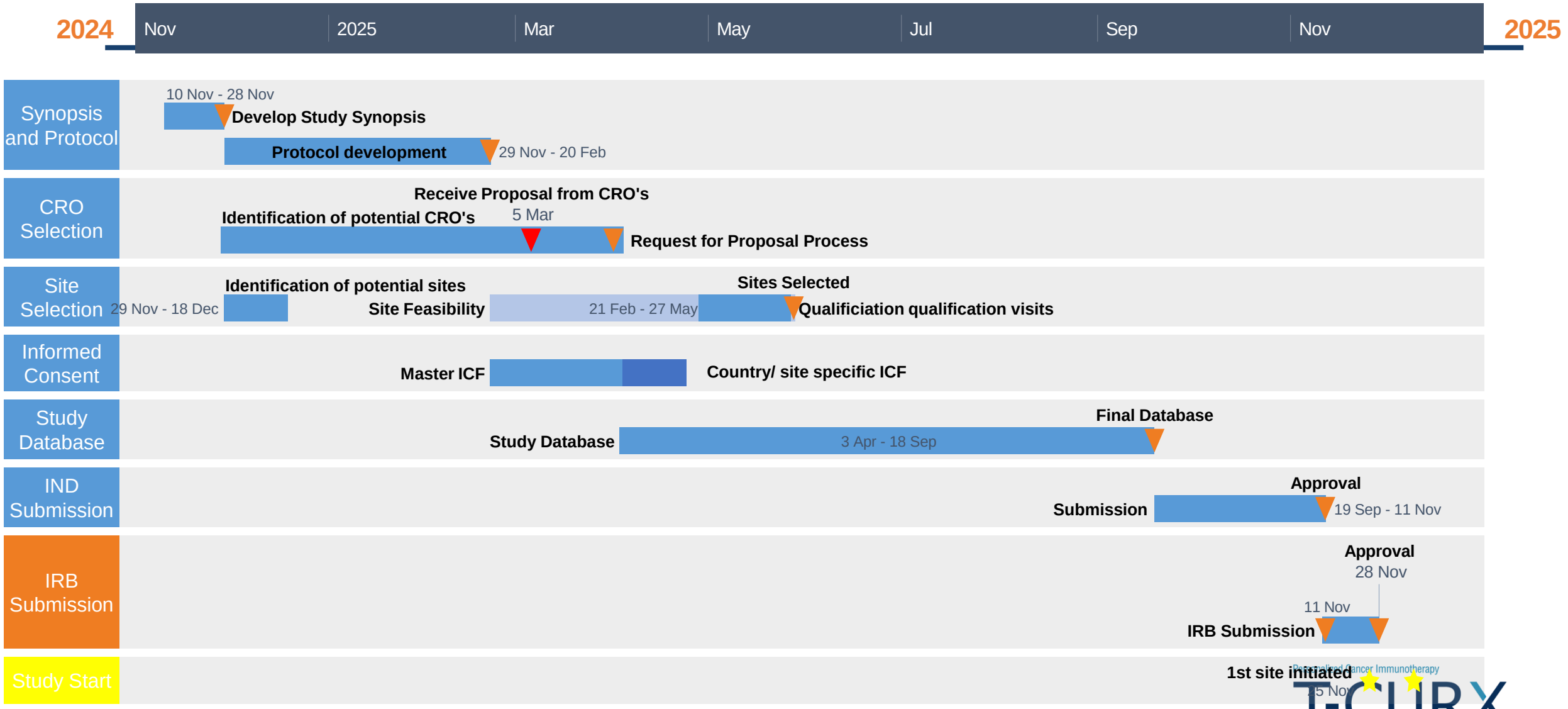
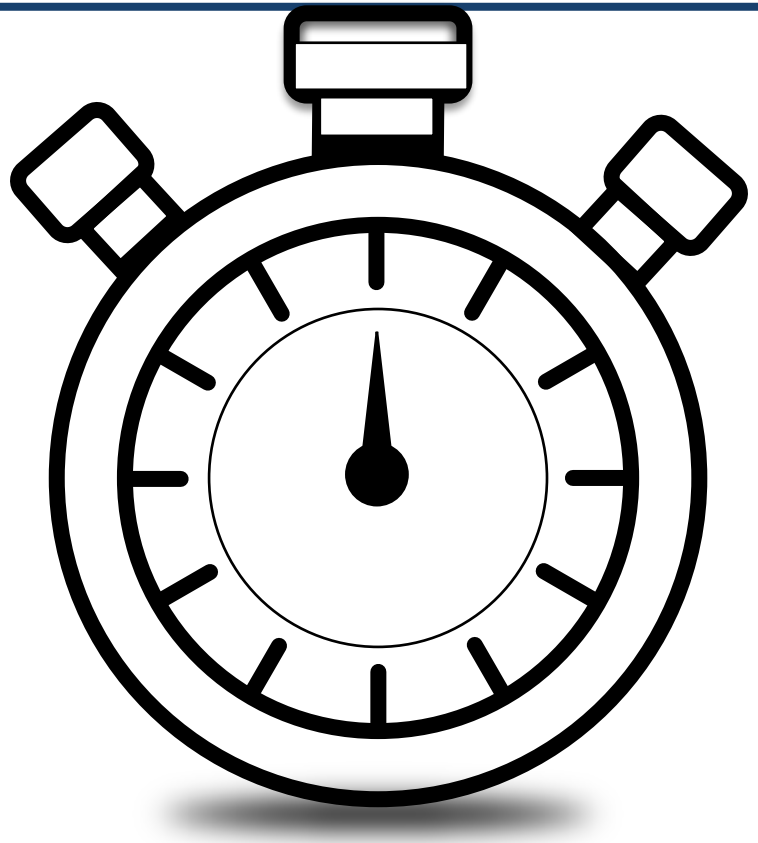
Timelines

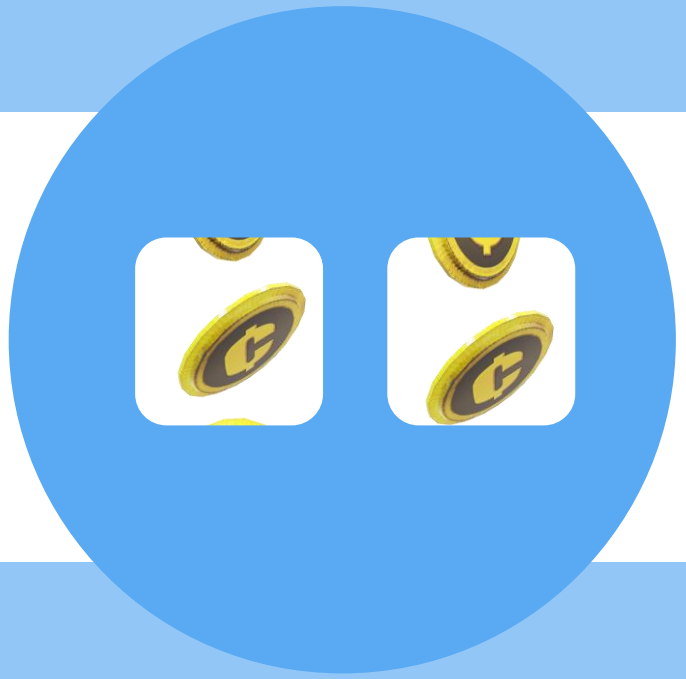
- Timelines are essential in in clinical trials, where managing multiple moving parts is crucial. Timelines help you:
  - Structuring your trial
  - Focusing on the tasks at hand
  - Resource management
  - Defines deadlines and deliverables
  - Help with efficient time management and communication
  - Help mitigate risks
  - Facilitates decision making
  - Gives you reason to celebrate!

How long does it take to set up a clinical trial?



Saving Time, Saving Money





Streamlining Clinical Trials for Efficiency

Cost-Saving Strategies in Clinical Trials

Invest in Efficient Vendor and Site Selection!

Choosing the right vendors, CRO and sites can safe significant time and money

Prioritize Patient Recruitment and Retention

Patient recruitment is a critical cost center

Implement Digital Solutions Early

Investing in technology can improve efficiency

Allocate Buffer for Unforeseen Costs

- Delays or complication
- 10-20% contingency budget

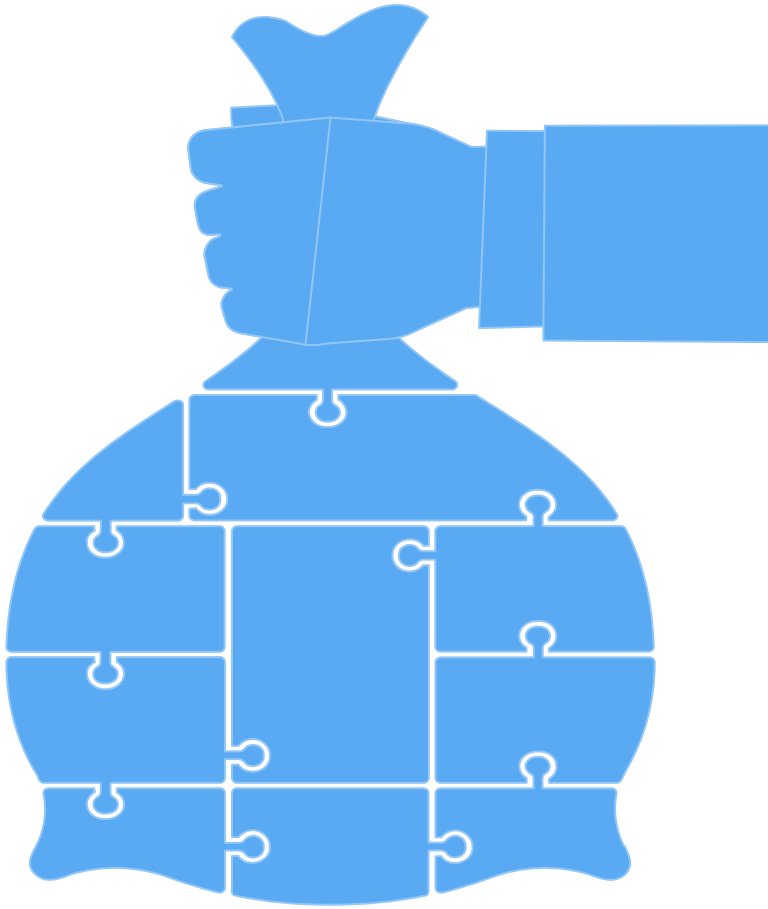
Understand Regulatory and Compliance Costs

– regulatory submissions, audits, and any compliance-related activities

– Underestimating these costs can lead to delays and extra expenses

Monitor Burn Rate Closely

– Know your cost driver



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Budget –Study Assumptions

Number of Sites	8
Number of Patients	50
Number of 1-day SMVs (one per patient)	50
Number of 2-day SMVs (one per patient)	50
Number of SAEs (1 SAE per patient)	50
Number of CRAs	4
Number of Countries	4
Number of Amendments	2
Investigator cost Per Pat in $	75’000
Number of Exploratory Labs	5
IMP Costs in $	0

Timelines in Months

Start-up	5
Enrollment	25
Treatment	3
Follow-up	1.0
Closeout	3.0
	37

0.25 pat/m/s

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CRO Budget

	Estimated Study Fees	Doubled the number of Sites	Doubled the timelines
Professional Fees (CRO)	**$ 4'541'786.20**	**$ 5'001'274.20**	**$ 7'235'726.20**
Study Protocol and Planning	$ 153'212.00	$ 230'844.00	$ 153'212.00
Regulatory Services	$ 137'240.00	$ 137'240.00	$ 137'240.00
Clinical Monitoring	$ 896'180.00	$ 1'099'380.00	$ 1'142'500.00
Project Management	$ 2'038'950.00	$ 2'165'190.00	$ 4'032'510.00
Safety Reporting and Medical Monitoring	$ 459'420.00	$ 459'420.00	$ 797'980.00
Data Management	$ 451'010.40	$ 451'010.40	$ 524'510.40
Electonic Data Capture	$ 99'246.00	$ 151'662.00	$ 141'246.00
Biostatistics and Programming	$ 233'407.80	$ 233'407.80	$ 233'407.80
Clinical Study Report and Addenda	$ 73'120.00	$ 73'120.00	$ 73'120.00
Pass-Through Costs (CRO)	**$ 147'500.00**	**$ 173'100.00**	**$ 160'700.00**
Investigator Fees	**$ 3'850'000.00**	**$ 3'950'000.00**	**$ 3'850'000.00**
Exploratory Lab Studies	**$ 1'250'000.00**	**$ 1'250'000.00**	**$ 1'250'000.00**
Total	**$ 9'789'286.20**	**$ 10'374'374.20**	**$ 12'496'426.20**
Difference		**$ 585'008.00**	**$ 2'707'140.00**

Where is the difference to the initial budget?

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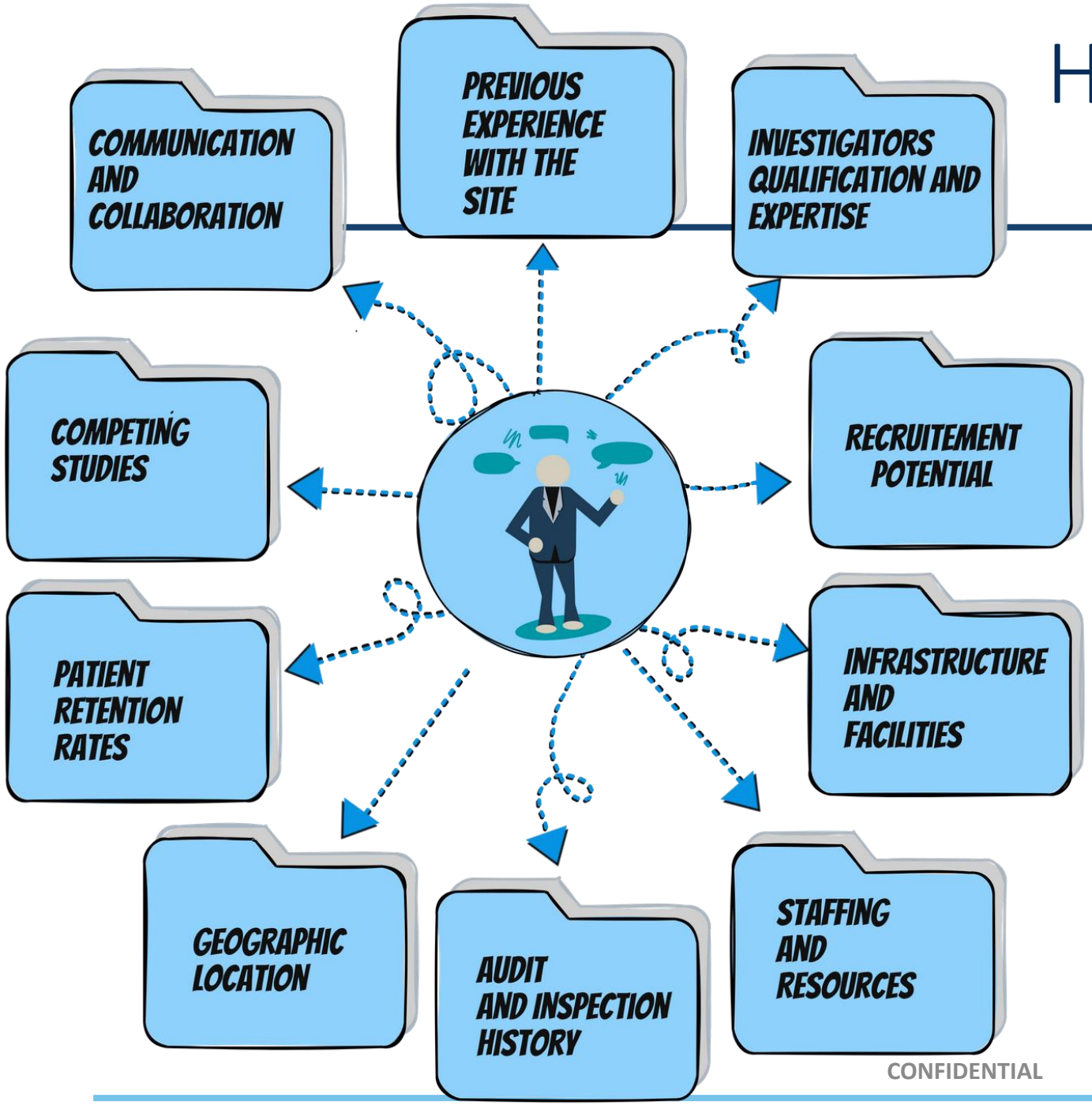
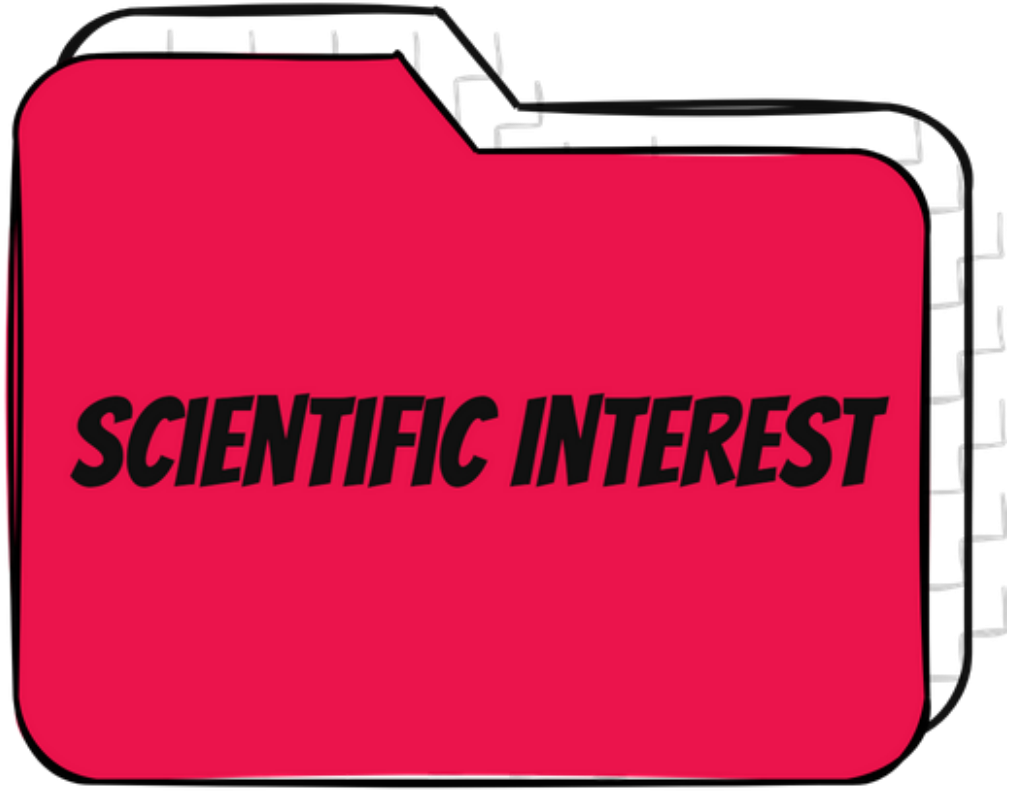
How to select the right site?

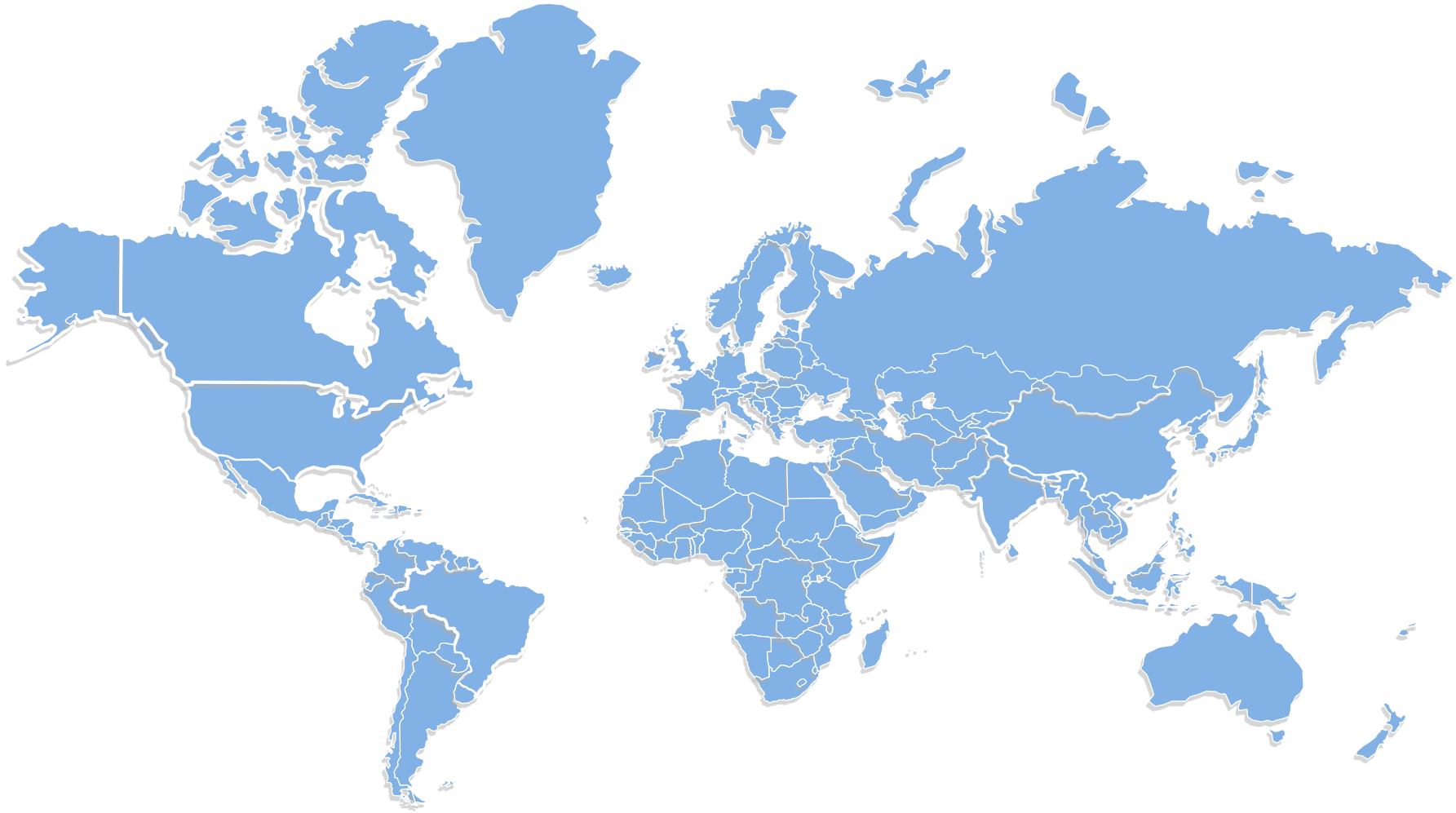




Plan your work and work your plan!

Napoleon Hill

Regulatory submission



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Regulatory Submission Plan

Study Award Oct-24

Final Protocol 29 Nov 2024

October 2024 – December 2024

Feasibility/ qualification and selection
Nov- 24 - Jan 25

Dossier/ submission prep
Nov -Mar 25

November 2024 – May 2025

Submissions
EU Feb-25
USA Jan 2025
Canada Mar 2025
Argentina Apr 2025
Australia Mar 2025

Approvals
EU Jun 2025
USA Mar 2025
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Argentina Nov 2025
Australia Jun 2025

March/May 2025

1st SIV
USA Apr 2025
EU Jun 2025
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Argentina Jan 2026
Australia Jun 2025

1st FPI
USA May 2025

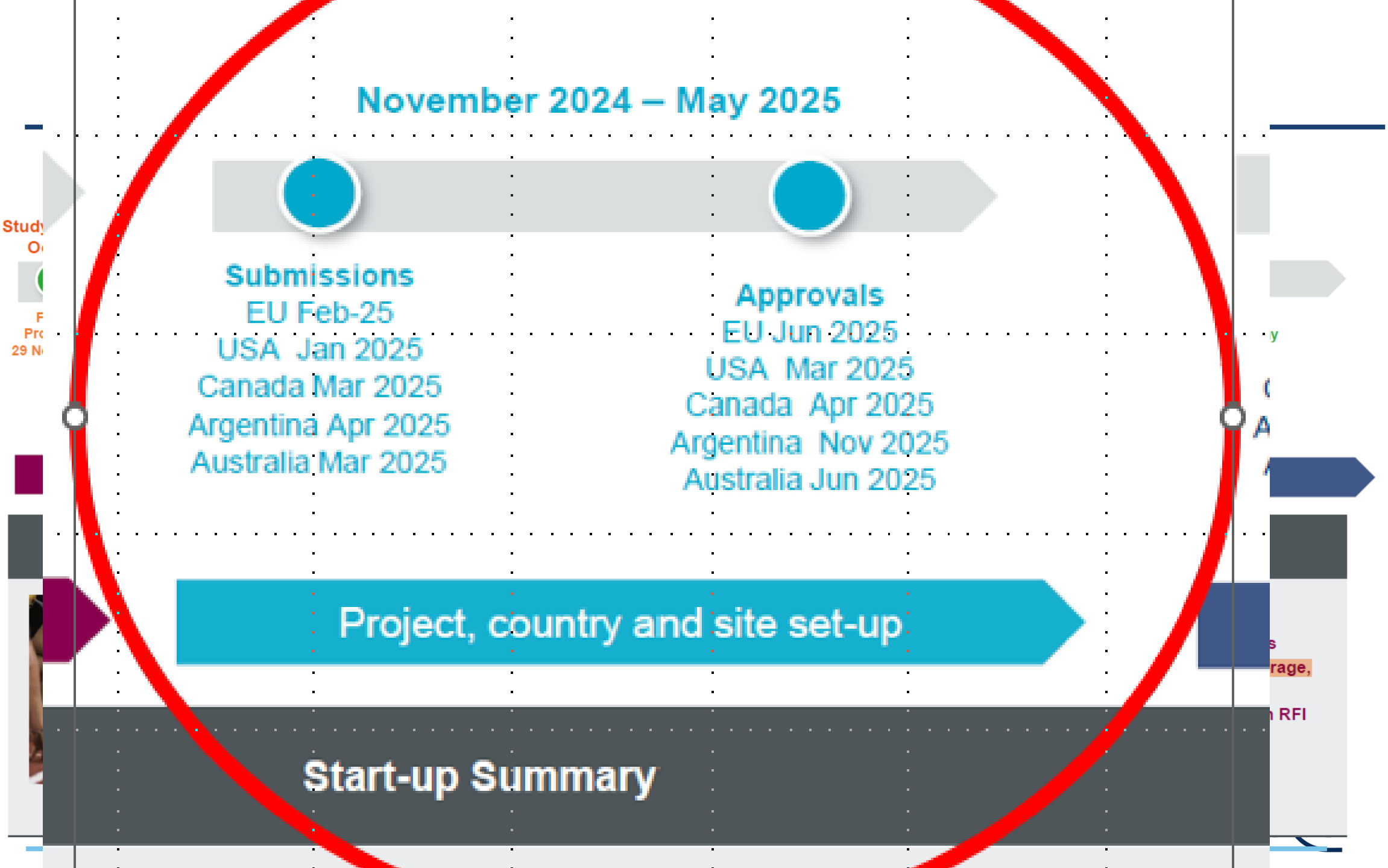
Project launch | **Project, country and site set-up** | **Project takeoff**

Start-up Summary

- ✓ **Country: 9**
  - ✓ USA 10, Canada 2, Argentina 1, Australia 2, Belgium 1, France 2, Spain 2, Italy 2, Netherlands 1
  - ✓ HHT Centers of Excellence for North America and ROW
- ✓ **EU CTR: parallel submission:** planned in parallel for part 1 and part 2
- ✓ **US and Canada: focus on Central IRB sites**

Critical path

- ✓ **Argentina may have prolonged activation timelines**
- ✓ **Canada, submission is sequential and has, on average, long contract negotiation timelines**
- ✓ **EU CTR timelines may be prolonged depending on RFI**
- ✓ **Delays in documents delivery**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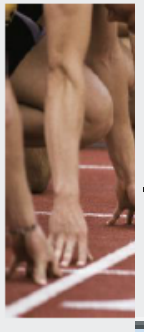
Re

Study Award
Oct-24

Final
Protocol
29 Nov 2024



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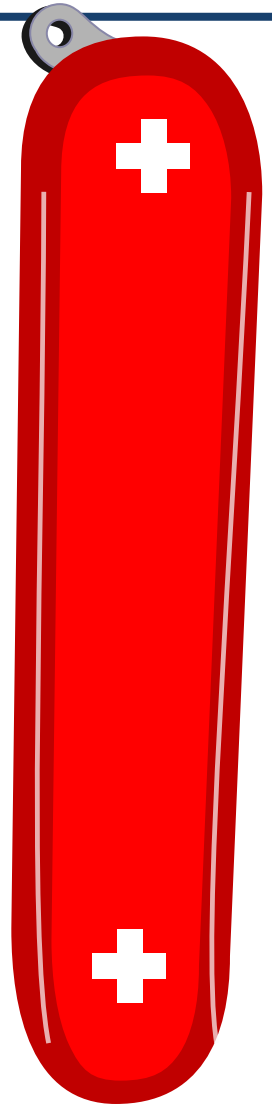
CITIS Submission

CITIS Submission	122T	25.03.25	10.09.25
CTIS Submission validation	**18T**	**25.03.25**	**17.04.25**
Submission to CTIS	0	25.03.25	25.03.25
Initial Validation	7T	26.03.25	03.04.25
Consolidate considerations	3T	25.03.25	27.03.25
submission of missing documents/ respond to RFI	10T	28.03.25	10.04.25
Assessment of RFI	5T	11.04.25	17.04.25
Part 1	**69T**	**25.03.25**	**27.06.25**
Document consideration	38T	25.03.25	15.05.25
Consolidate considerations and submit RFI	7T	16.05.25	26.05.25
Respond to RFI	12T	27.05.25	11.06.25
Assessment of RFI Response	12T	12.06.25	27.06.25
Consolidate RFI Review	7T	27.05.25	04.06.25
Part 2	**52T**	**26.03.25**	**05.06.25**
Request for information on assessment	32T	26.03.25	08.05.25
Sponsor Response	10T	09.05.25	22.05.25
Assessment report on Part 2	10T	23.05.25	05.06.25
Assess RFI Response	19T	06.06.25	02.07.25
Submit final Assessment Part 1 and 2	0	02.07.25	02.07.25

Manage your risks

Regulatory Compliance

Effective risk management helps meet regulatory requirements by identifying and mitigating non-compliance risks, avoiding costly delays or trial terminations.



Ensures Patient Safety

Risk management identifies potential hazards that could affect participants' health, ensuring prompt actions to minimize risks and maintain patient safety.

Maintains Data Integrity

By addressing risks early, it helps protect the quality and reliability of trial data, which is essential for regulatory approval and scientific validity.

Operational Efficiency

Identifying operational risks can prevent disruptions, such as recruitment challenges or site issues, leading to smoother trial execution and faster timelines.

Cost Control

Proactive risk management reduces the likelihood of unexpected costs due to protocol deviations, safety issues, or operational inefficiencies, ensuring more effective use of resources.

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A goal without a plan is just a wish!

Antoine de Saint-Exupéry

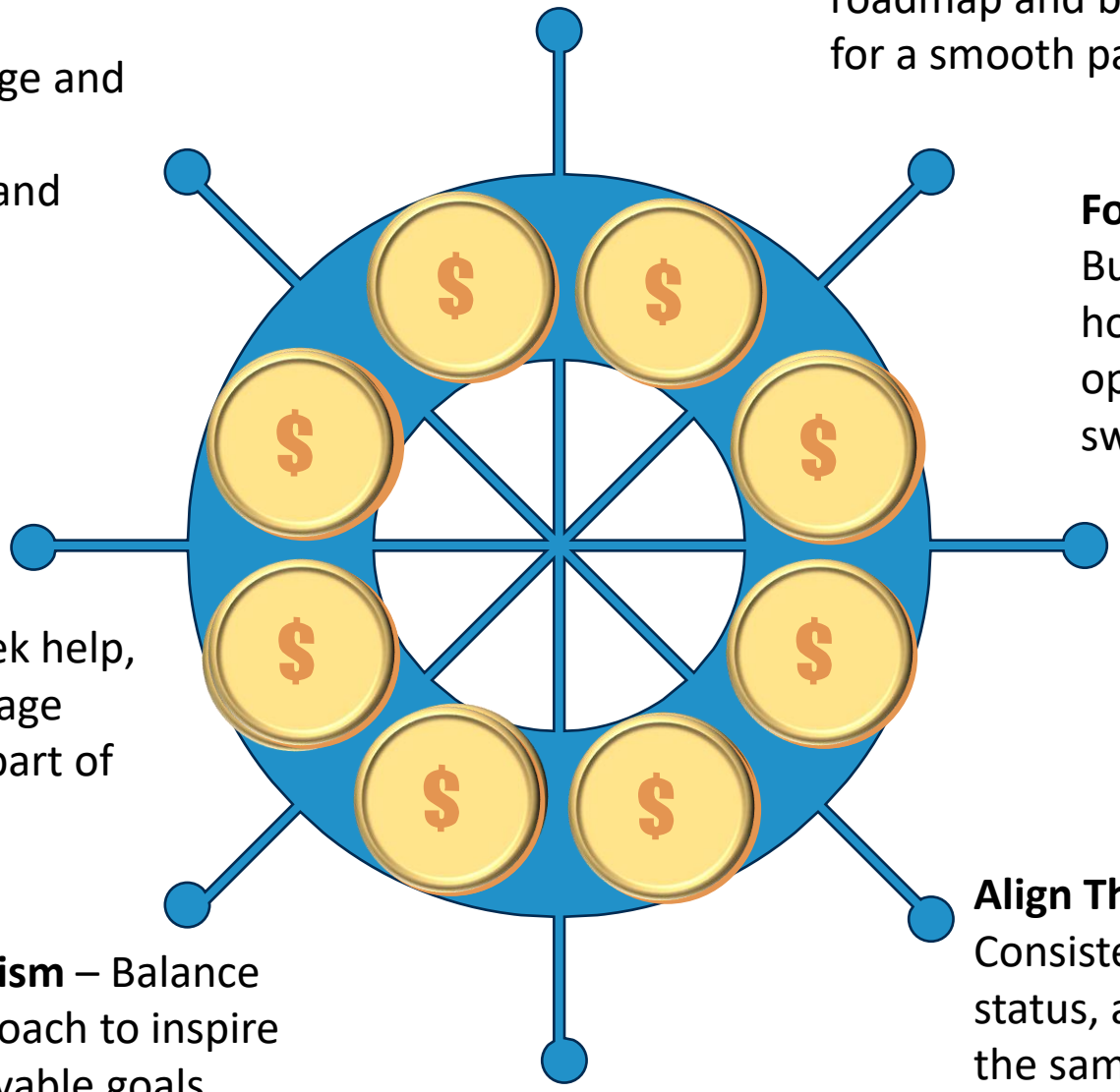
Take the Wheel of Fortune

Celebrate Success – Acknowledge and celebrate milestones and achievements to boost morale and maintain momentum

Simplicity Wins – Streamline processes to stay efficient and focused on what matters most.

Build a Powerhouse Team – Seek help, integrate consultants, and leverage functional service providers as part of your internal team.

Lead with Passion and Pragmatism – Balance enthusiasm with a realistic approach to inspire while staying grounded in achievable goals.



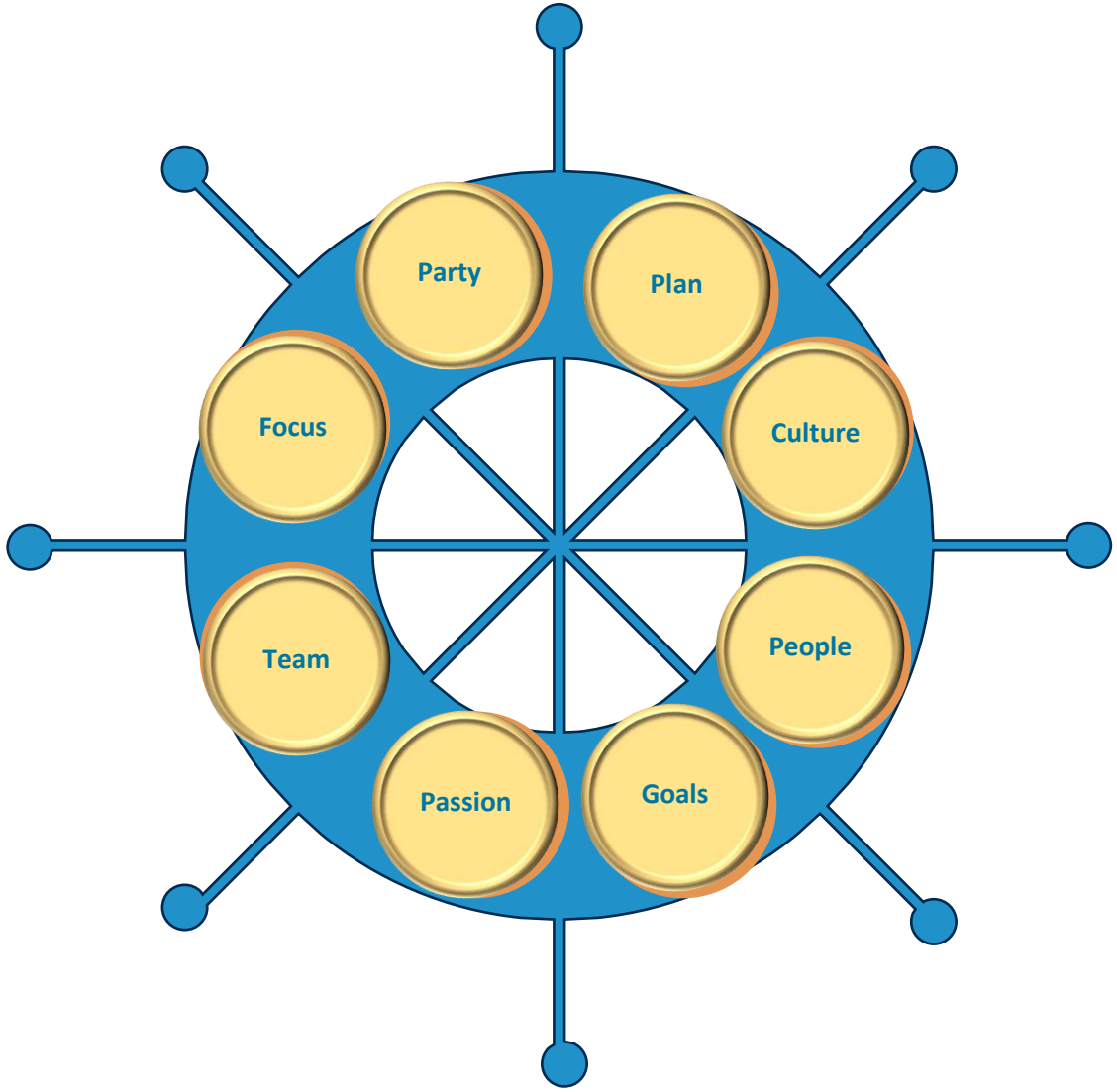
Map Your Success" – Develop a strategic roadmap and begin your study planning early for a smooth path to success.

Foster a Culture of Transparency Build an environment where honesty thrives, and mistakes are openly communicated and swiftly resolved.

Invest in People, Unlock Potential – Train and empower your team to drive success and innovation..

Align Through Clear Communication – Consistently share your goals, study status, and updates to keep everyone on the same page..

Personalized Cancer Immunotherapy
T-CURX



Personalized Cancer Immunotherapy
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Any questions?

Thank you for your attention!

Personalized Cancer Immunotherapy
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Introduction Cornelia

Cornelia at a glance:

- Over 20 years of experience in Clinical Research, specializing in Phase 1 and 2 clinical trials, with a primary focus on oncology and infectious diseases.
- Dedicated the last decade to effective management of clinical trials, demonstrating a comprehensive understanding of the field and a commitment to professional development.
- Progressed through various roles in clinical research, starting as a Clinical Research Associate and advancing to positions like Study Nurse, Study Manager, and Clinical Operations Manager.
- Completed a Diploma of Advanced Studies in Clinical Trial Practice and Management at the University of Basel in 2012, enhancing practical experience with a strong theoretical foundation.

Introduction T-CURX GmbH

T-CURX at a glance:

- **Company Profile:** T-CURX GmbH is a private German early-stage biopharmaceutical company specializing in next-generation CAR-T cell therapies for cancer, particularly in high medical need indications.
- **Technology Foundation:** A spin off from the Universitätsklinikum Würzburg
- **Development Pipeline:** T-CURX has a development pipeline comprising four programs. The first product candidate is currently in Phase I of clinical development, while the second CAR-T program, targeting novel indications in Acute Myeloid Leukemia (AML), is prepared for a clinical trial application.

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