Commercial Naviguide

Partnering Your Innovation Journey

SingHealth DukeNUS ACADEMIC MEDICAL CENTRE

Alice Lee Innovation Centre of Excellence

SGH CAMPUS

Preface

Welcome to our world of healthcare commercial partnerships, where collaboration meets innovation. At A.L.I.C.E, we believe in forging strong alliances with like-minded partners to revolutionise the healthcare landscape. The innovation journey resembles that of a seed to fruit process. It is a long and arduous process where large amounts of patience and effort are required in order to succeed.

Besides serving our internal community, we also support the wider innovation ecosystem in furthering their solutions, leveraging on our strength as the largest healthcare cluster in Singapore. A.L.I.C.E is well-positioned to enable meaningful partnerships and advance healthcare innovations that are beneficial to the Singapore healthcare ecosystem and beyond.

This Commercial Naviguide is produced to assist partners like yourself in navigating the healthcare innovation landscape within SingHealth. This simple and interactive Naviguide contains different roadmaps that cover a comprehensive set of topics that may arise in your innovation journey from **Ideation, Co-Development and Test-bedding** towards **Impact Creation.** We hope that this Naviguide will encourage the formation of many more symbiotic collaborations.

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Icons Glossary

Hello!
I'm A.L.I.C.E

I represent A.L.I.C.E @ SGH Campus and you'll see me throughout this guidebook, together with the icons to the right!

SingHealth

Company

Glossary

Alice Lee Innovation Centre of Excellence

Introducing the Alice Lee Innovation Centre of Excellence (A.L.I.C.E) - a healthcare innovation hub nestled within the heart of Singapore's largest healthcare cluster at the Singapore General Hospital (SGH) Campus. As part of the SingHealth Duke-NUS Academic Medicine Innovation Institute (AMII) and SingHealth Division of Innovation and Transformation (Do-IT), A.L.I.C.E serves as your gateway to impactful healthcare innovations.

Imagine a place where world-class experts from diverse clinical specialties unite to reimagine the entire care continuum, from primary to quaternary care. A.L.I.C.E is the hub that sparks collaboration between commercial partners and healthcare clinicians, thereby securing a pipeline of co-developed and validated high-impact healthcare innovations.

A.L.I.C.E will be the key platform in SingHealth Duke-NUS Academic Medical Centre (AMC) to deepen innovations, forge comprehensive partnerships, and empower innovators to propel the future of healthcare. Join us on this transformative journey, where innovation meets compassion, and together, we can create an impactful healthcare system for tomorrow.

Purpose

To provide a platform that facilitates collaborations between healthcare professionals and commercial partners to transform the healthcare industry. We partner with various companies, by supporting the curation of new insights, creation of impactful technologies, solutions and development of advanced workflow and expertise.

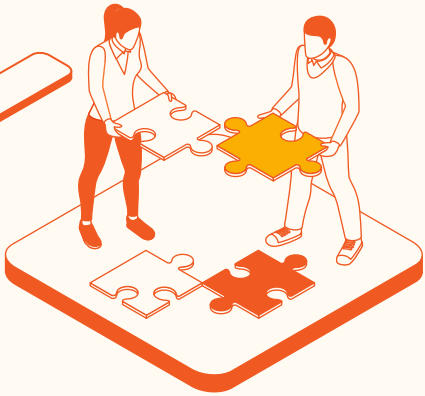
This Commercial Naviguide is produced to assist partners in navigating the healthcare innovation landscape within SingHealth. Together, let's create a lasting impact on our patients and communities we serve.

Vision

To be the leading translation platform in transforming healthcare delivery through impactful innovations.

Values

A.L.I.C.E is the hub that sparks collaboration between commercial partners and healthcare clinicians, in securing a pipeline of co-developed and validated high-impact healthcare innovations. We aspire to be a catalyst for positive change in healthcare through the alignment of your needs with our value propositions.



Your partnership journey begins here, and A.L.I.C.E is here to help.

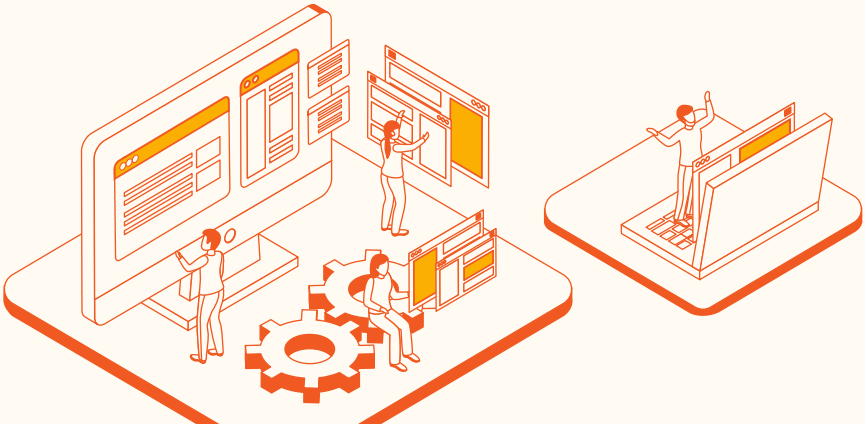
Click on any of the topics below to begin.

I would like to showcase/advance awareness of my product

I would like to co-develop new healthcare solutions

I would like to consult healthcare experts

I would like to commercialise SingHealth's technologies



I would like to showcase/advance awareness of my product

Product Evaluation or Test-bedding

Product Showcase or End-User Engagement

I would like to co-develop new healthcare solutions

- Solution Validation
- Co-Development of New Solutions
- Establishing Thematic Partnerships

I would like to consult healthcare experts

Consultation with Domain Experts

Appointing of Domain Experts as Company Advisors

I would like to commercialise SingHealth Technologies

Licensing of SingHealth's Technologies

Exploring Early Involvement with SingHealth's Projects

Solution Validation

- Pre-Clinical Validation
- Clinical Validation - Healthy Volunteers
- Clinical Validation - Patients
- Regulatory Validation Support

PRODUCT EVALUATION OR TEST-BEDDING

Plans to increase product awareness via product evaluation or test-bedding in SingHealth's institutions

1 First contact with

- Signing of mutual NDA
- Working Discussions

2

Seek company's confirmation on products for evaluation

Identify/link up internal experts and form up investigation team

Assist investigators to review company's submitted plans

3

WITH PLANS

NO PLANS

Assist investigators to develop customised plans in accordance to company's needs

4

Assist investigators to confirm their plans and align internally with relevant offices

5

Support putting the relevant agreements in place

Support investigators during product evaluation or test-bedding

6

Follow up with company after conclusion of product evaluation

PRODUCT SHOWCASE OR END-USER ENGAGEMENT

Plans a product showcase and gathers domain feedback to generate greater awareness

First contact with

- Signing of mutual NDA
- Working Discussions

1

2

Guide company in the submission of Risk Assessment Form and support them during the approval process

Assist company to develop targeted engagement survey forms

NO PLANS

3

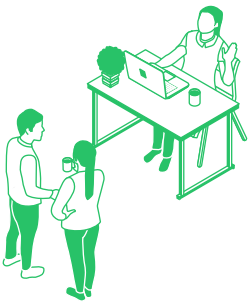
WITH PLANS

Review engagement survey forms submitted by the company and, where necessary, enhance the context of the survey forms and advice accordingly

4

Publicise the showcase and engage targeted internal stakeholders

Support company during the on-site engagement



5

Follow up with company after conclusion of on-site engagement

USEFUL SUPPLEMENTARY INFORMATION

- Workplace Safety Guideline

CO-DEVELOPMENT OF NEW SOLUTIONS

Plans to seek SingHealth's support to co-develop new solutions

1 First contact with

- Signing of mutual NDA
- Working Discussions

2

Confirm company's co-development requirements

Identify and connect internal multidisciplinary experts to company, and form co-development team

Assist co-development team in crafting the company's production and commercialisation roadmaps

3

NO PLANS

WITH PLANS

Assist co-development team in reviewing the company's plans

4

Assist co-development team to develop product development plans and align internally with relevant offices

Facilitate the relevant agreements

5

Support co-development team in achieving committed deliverables

Follow up on next phase co-development eg. validation, funding

USEFUL SUPPLEMENTARY INFORMATION

- Emergency Care Research Institute (ECRI) Device Evaluation Program
- European Standards
- Food and Drug Administration (FDA)
- Health Science Authority (HSA)
- International Electrotechnical Commission (IEC)
- International Organization for Standardization (ISO) standards
- SingHealth Duke-NUS Medical Technology Office (MTO)

ESTABLISHING THEMATIC PARTNERSHIPS

Intends to explore and establish mutually beneficial thematic programme with SingHealth

1

First contact with

- Signing of mutual NDA
- Working Discussions

2

Seek company's requirements on thematic partnership

Determine if company has identified collaboration domain, including the required plans/resources

Match internal experts to company for alignment and to form collaboration team

3

WITH PLANS

NO PLANS

Assist collaboration team in reviewing joint program master plan

Assist collaboration team on formulating joint program master plan aligned with company's commercialisation roadmap

4

Assist collaboration team in seeking needed resources through grant application

Facilitate the collaboration agreements in alignment with the respective internal offices

5

Follow up with company's development plans for the next phase

PRE-CLINICAL VALIDATION

Has developed a novel technology and plans to conduct a pre-clinical validation study to evaluate the safety and/or performance of the newly developed technology

1

First contact with

- Signing of mutual NDA
- Working Discussions

2

Confirm the validation model eg. wet or dry bench, cadaver or animal, with the company

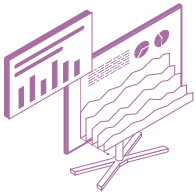
Match internal domain experts to company and form validation study team

Assist validation study team on reviewing the validation plan

3

WITH PLANS

NO PLANS



Assist validation study team in developing customised plan

4

Assist validation study team in creating plans and align internally with relevant offices

5

Facilitate the relevant agreements

Provide internal support to validation study team

6

Follow up with company to plan the next phase of development

USEFUL SUPPLEMENTARY INFORMATION

- SingHealth Experimental Medicine Centre – For animal studies
- SingHealth Office of Research Integrity, Compliance and Ethics (RICE)

CLINICAL VALIDATION - HEALTHY VOLUNTEERS

Has developed a novel technology and plans to conduct a first-in-man clinical validation study on healthy volunteers to evaluate the safety of the newly developed technology

1 First contact with

- Signing of mutual NDA
- Working Discussions

2 Seek company's confirmation on clinical validation for healthy volunteers

Match internal domain experts to company and form validation study team

Assist validation study team in developing clinical validation plan

3

NO PLANS

WITH PLANS

Assist validation study team to review clinical validation plan

4 Assist validation study team in finalising plans and align internally with relevant offices

5 Provide support to put the relevant agreements in place

Follow up with company on the development of next phase plans

6 Facilitate the relevant agreements

Follow up on the development of next phase plans

USEFUL SUPPLEMENTARY INFORMATION

- CE Mark
- Food and Drug Administration (FDA)
- Health Science Authority (HSA)
- Integrated System in Healthcare for Research (iSHaRe)
- SingHealth Duke-NUS Medical Technology Office (MTO)
- SingHealth Office of Research Integrity, Compliance and Ethics (RICE)

CLINICAL VALIDATION - PATIENTS

Has developed a novel technology and plans to conduct a first-in-man clinical validation study on patients to evaluate the performance and safety of the newly developed technology

First contact with
- Signing of mutual NDA
- Working Discussions

1

2

Seek company's confirmation on clinical validation plan

Match internal domain experts to company and form validation study team

Assist validation study team to review clinical validation plan

3

WITH PLANS

NO PLANS

Assist validation study team in developing clinical validation plan

4

Assist validation study team in finalising plans and align internally with relevant offices

5

Facilitate the relevant agreements

Provide internal support to validation study team

6

Follow up with company on the development of next phase plans

USEFUL SUPPLEMENTARY INFORMATION

- Food and Drug Administration (FDA)
- Health Science Authority (HSA)
- Integrated System in Healthcare for Research (iSHaRe)
- SingHealth Duke-NUS Medical Technology Office (MTO)
- SingHealth Office of Research Integrity, Compliance and Ethics (RICE)

REGULATORY VALIDATION SUPPORT

Has developed a product and plans to seek SingHealth support to conduct a regulatory validation study

1

First contact with

- Signing of mutual NDA
- Working Discussions

2

Seek company's confirmation on requested regulatory validation

Match internal domain experts to company and form validation study team with advice from company's appointed CRO

Help validation study team to develop clinical validation plan with input from CRO

3

NO PLANS

WITH PLANS

Assist validation study team on reviewing clinical validation plan submitted by CRO

4

Assist validation study team in firming up plans and align internally with relevant offices

5

Facilitate the relevant agreements

Provide internal support to validation study team

6

Follow up with company after the conclusion of regulatory validation

USEFUL SUPPLEMENTARY INFORMATION

- Food and Drug Administration (FDA)
- Health Science Authority (HSA)
- Integrated System in Healthcare for Research (iSHaRe)
- SingHealth Duke-NUS Medical Technology Office (MTO)
- SingHealth Office of Research Integrity, Compliance and Ethics (RICE)

CONSULTATION WITH DOMAIN EXPERTS

Intends to consult SingHealth clinical and/or operation experts

1

First contact with

- Signing of mutual NDA
- Working Discussions

2

Seek company confirmation on requested expert consultation

Identify and link up internal domain experts to company

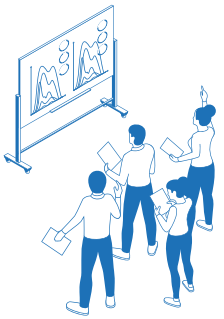
Firm up consultation format with company and finalise the relevant questionnaire

3

WITH PLANS

NO PLANS

Assist company to develop a targeted consultation questionnaire



4

Collate findings/results of the consultation questionnaire

Support appointed SingHealth experts to get internal approval and assist Company during the period of consultation

APPOINTING OF DOMAIN EXPERTS AS COMPANY ADVISORS

Plans to engage SingHealth clinical and/or operational experts as advisors to company

1

First contact with

- Signing of mutual NDA
- Working Discussions

2

Confirm company's request to appoint SingHealth domain experts as company advisors

Identify and link up internal domain experts to company

Assist identified experts on reviewing ToR submitted by company

3

WITH PLANS

NO PLANS

Assist identified experts on developing the ToR with input from company

4

Support appointed SingHealth experts to get internal approval and assist Company during the period of consultation

LICENSING OF SINGHEALTH TECHNOLOGIES

Intends to explore licensing of SingHealth technologies

SingHealth Intellectual Property (SHIP)

First contact with

Working discussion and linking with SingHealth Intellectual Property Office (SHIP)

1

2

Sharing of non-confidential descriptions

SingHealth IP to assess areas of interest and determine availability of suitable IP

3

IP SUITABLE

keen to explore opportunities

Signing of mutual NDA for further information sharing

4

SingHealth IP to confirm company's interest in licensing

5

SingHealth

Terms are negotiated and shared on a non-binding termsheet

Definitive license agreement is drafted upon agreement of terms

License is executed when acceptable to all parties

6

SingHealth IP will check in on progress of commercialisation activities and ensure that obligations are met

SingHealth

Suitable IP is **NOT** identified

Explore future opportunities

USEFUL SUPPLEMENTARY INFORMATION

- Intellectual Property Office of Singapore (IPOS)

EXPLORING EARLY INVOLVEMENT WITH SINGHEALTH'S PROJECTS

Seeking investment opportunities or highly promising R&D projects at SingHealth

1

Link up to Incubator Team

- Signing of mutual NDA

2

SingHealth Incubator team engages with companies /investors to share information on pipeline projects

3

SingHealth Incubator team to match and connect companies/investors with relevant projects of interest

Innovating Onward!

Next step towards innovation

We hope that this Commercial NaviGuide will become a useful companion on your path towards innovation and excellence in healthcare.

This is but a sketch of what to expect when you partner with us - do approach us so that we can meet your needs, and together, forge transformative solutions for healthcare.

Innovation and healthcare are not solitary pursuits but collective endeavours that require collaboration, dedication, and an unyielding commitment to excellence. Our staff at A.L.I.C.E will work with you so that we can bring to bear top-notch healthcare professionals with market players, and **revolutionise healthcare for a healthier world.**

> "Everyone has a role to play in innovation."
>
> - Assoc Prof Henry Ho, Director
> Alice Lee Innovation Centre of Excellence

Acknowledgements

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