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**Oncology Center of Excellence
for Baan Jai Sai
in Phuket, Thailand**

My role **BAAN JAI SAI** in Project

1. BJS Proposition - Mission
2. Thailand Cancer Analysis & Forecast
3. Global Cancer Trends
4. Global Audit Cancer Equipment
5. Thailand Audit Cancer Equipment
6. Benefits BJS bring to Thailand
7. Children's Program – Develop of
8. Local Employment Growth
9. Capital Investment
10. Target Consumers
11. Built a C.P.R Model (Cost, Pricing & Revenue)
11. Local Partnerships – Create
12. Global Partnerships - Create
13. Financials
14. Branding
15. Thai PM office strategy submission documents

BAAN JAI SAI

“We aim to provide the
BEST cancer care,
BEST treatments, in the
BEST facility,
translating to cures.”

We aim to create a center of oncology excellence in Phuket, Thailand

Dedicated to caring for people affected by cancer.

We will focus on INNOVATION in the DELIVERY of TREATMENT to achieve significantly better outcomes for patients

Empowering those affected by cancer with a sense of control.

GLOBAL CANCER OVERVIEW

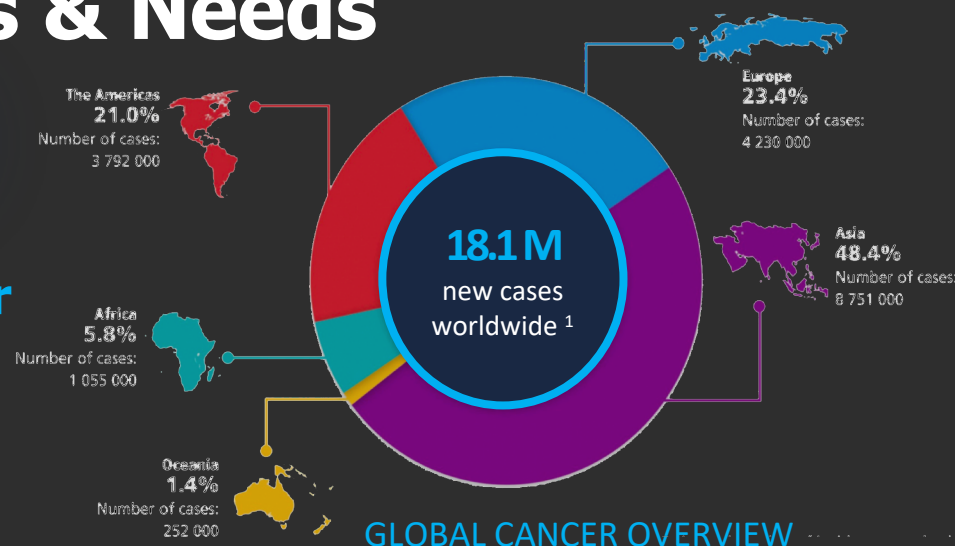
Oncology – Disease Problem, Trends & Needs

63% surge in cancer incidence expected in next 10 years

Number 2 killer:

1 in 5 men & 1 in 6 women worldwide will develop cancer during their lifetime

5-year Forecast 43.8 million, **2018: 18.1 million new cases**
9.6 million deaths



Trends Disruptors

Consumerism

- Increase in awareness. Demand for early Dx and genetic risk testing and wearables to monitor disease

Molecular technologies (3-5yr)

- Liquid biopsy (ct-DNA/RNA), low cost next generation sequencing, radiomics and Predictive Analytics

Explosive growth in therapies

- Targeted therapies (~\$28B, >100), I/O - \$60B, double by 2022; >4500 trials
- Radiation Therapy efficacy

Issues Unmet Needs

Patients

- Finding patients for clinical study, stratifying disease and optimizing treatment solutions
- Early access to Dx, specialty care and trials
- Predicting and monitoring patient response

Clinicians – Medical / Surgical / Radiation

- Data explosion : drugs, diagnostics, guidelines
- Multiple MDT meetings per/physician
- Targeting and predict Tumor / Ca progression
- Workflow, data management and integration

Therapy Innovators and Providers

- Late stage diagnosis driving metastatic disease
- Cost and reimbursement of immunotherapies
- Access to and affordability of Therapies
- Guiding effective Radiation Therapy

THAILAND Cancer Challenge & Trend

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170,495

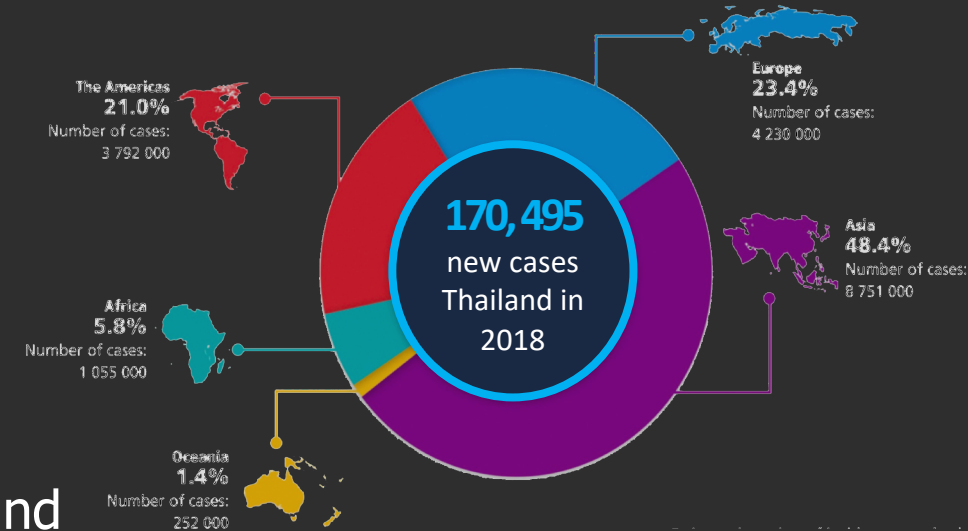
NEW CASES of cancer in Thailand 2018

114,199

DEATHS caused by cancer in Thailand 2018

330,716

2023 **FORECAST** cancer cases in Thailand



	Males	Females	Both Sexes
Population	33,713,602	35,469,571	69,183,175
#of new cancer cases	84,196	85,759	170,495
Age standardized incidence rate (World)	169.3	151.0	158.2
Risk of Developing cancer before age of 75	35.8	26.5	30.4
Number of cancer deaths	69,074	50,125	114,199
Age standardized incidence rate (World)	127.4	86.4	104.8
Risk of Developing cancer before age of 75	27.2	17.2	21.6
5-year prevalent cases	136,301	194,415	330,716

Top 5 most frequent cancers

Males	Females	Both Sexes
Liver	Breast	Lung
Lung	Cervix uteri	Liver
Colorectum	Colorectum	Breast
Prostate	Lung	Colorectum
Gallbladder	Liver	Gallbladder

BAAN JAI SAI - Proposition

“We focus on INNOVATION in the DIAGNOSIS & DELIVERY of Cancer TREATMENT to achieve significantly better outcomes for our patients – who we treat as our guests”

GLOBAL AUDIT

Cancer Diagnostic Equipment & Patient Treatments

Global Audit undertaken...

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9 Countries
11 Hospitals

2 Universities
7 Manufactures



How Global Audit of Cancer Care was undertaken...

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BJS intent is to bring the latest in Technology & Innovation for cancer Diagnosis & Treatments to Phuket Thailand

DIAGNOSTIC IMAGING

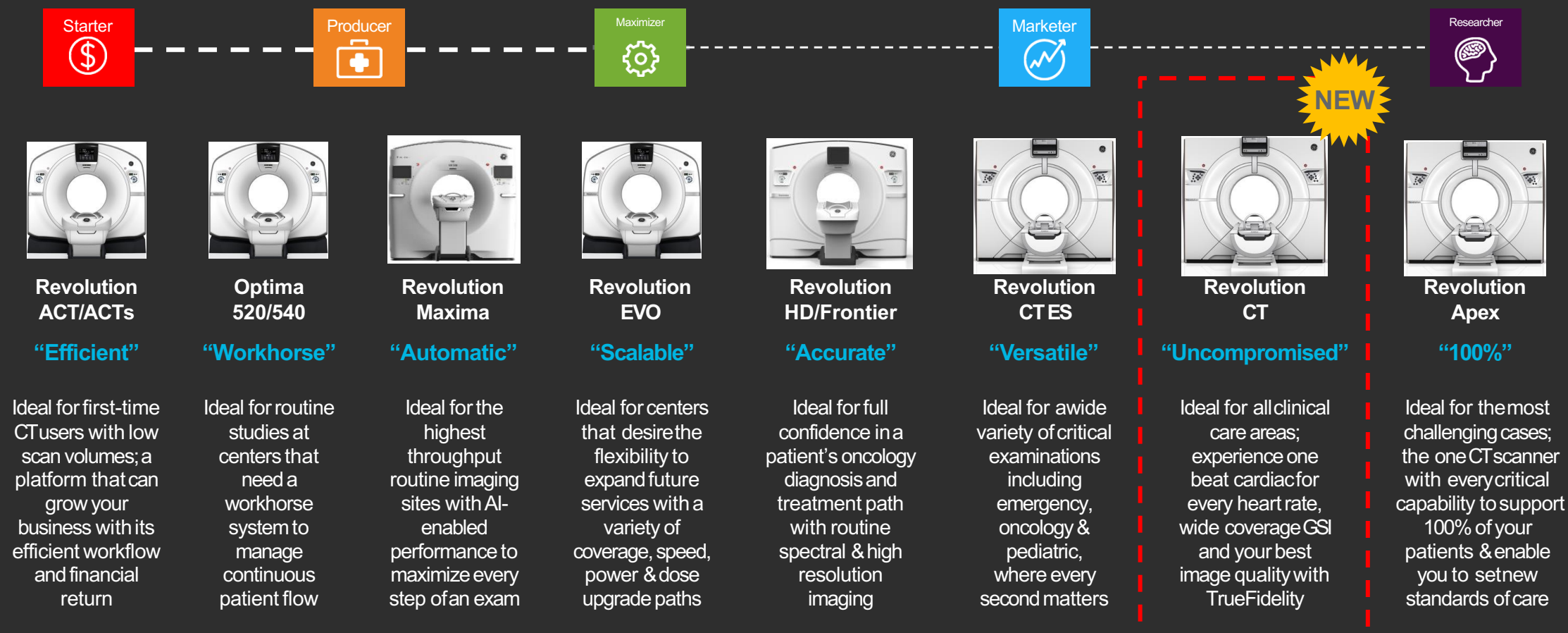
1. **CT Scanner** Computer Tomography
2. **SPECT/CT** Single Photon Emission
Computerized Tomography
3. **MRI** Magnetic Resonance Imaging
4. **PET/CT** Position Emission Tomography
5. **CT Sim** Computer Tomography Simulation
6. **Mammography**
7. **Ultrasound**
8. **X-Ray**

TREATMENTS

1. **Cyclotron Proton Radiation Therapy**
2. **Halcyon Treatment**
3. **CyberKnife Radiation Therapy**
4. **Lu 177 Isotope Treatment**
5. **Stem Cell Therapy**
6. **Chemotherapy**
7. **Isotope Production**
 - **FDG**
 - **Ga 68**
 - **Ammonia**

Global Audit: CT Scanners

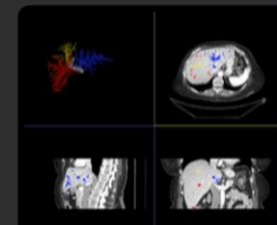
Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand



Recommendation: Revolution CT-EX Scanner

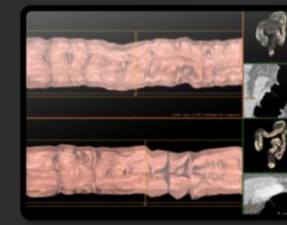
Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

- Low-dose, whole-organ diagnosis and follow-up for oncology patients
- Detailed bone imaging, even for patients with metal implants
- Sedation-free, low-dose scans for pediatric patients
- Cardiac exams in a single heartbeat, with or without beta blockers
- 16 cm coverage with ability to upgrade to Apex edition on-site
- Whole-brain imaging in less than a second
- Gemstone Spectral Dual-Energy Imaging
- Full Onco package including Lung Cancer, Colon, Perfusion Multi- Organ Imaging, Metal Artifact reduction, Liver, Onco Quant Analysis



Hepatic VCAR

Automated tools for liver segmentation, liver volumes, lesions, and changes overtime



Colonography

3D and dissection views and tools for CT colonography cases



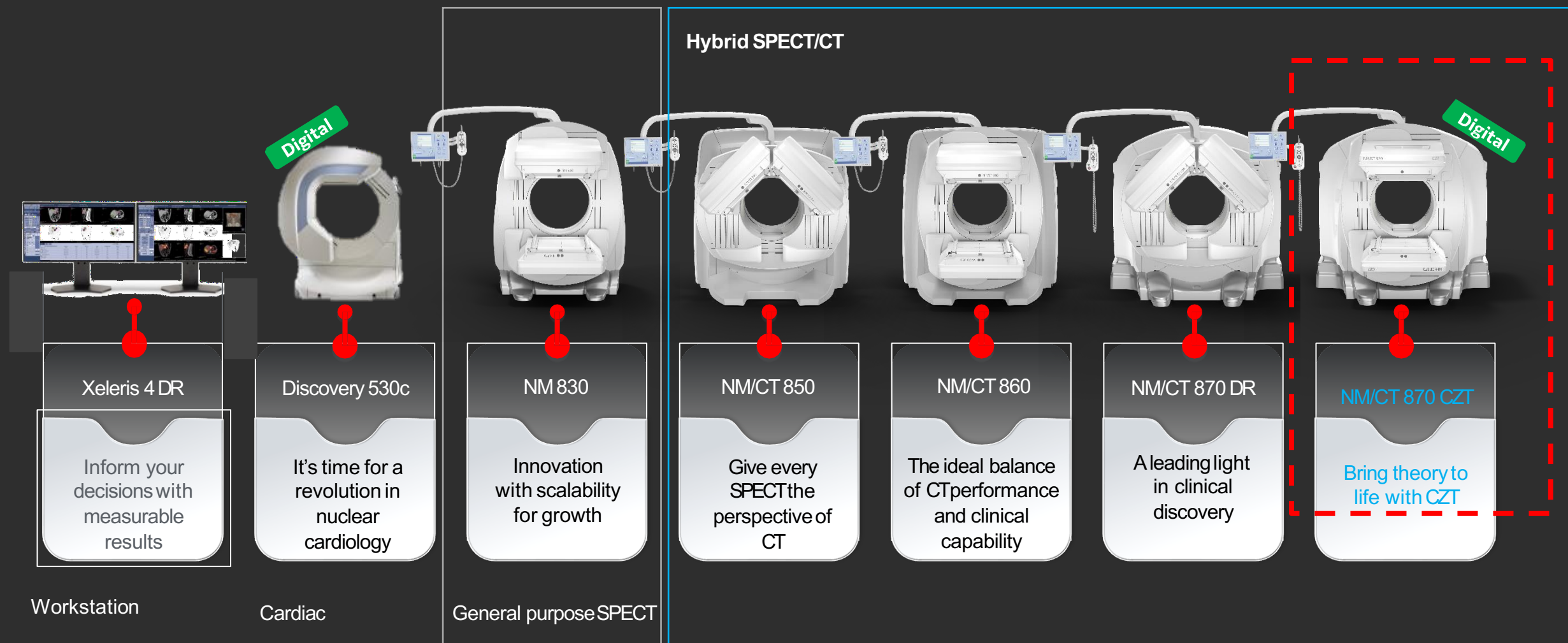
Lung VCAR

Nodule visualization, characterization, analysis and management

Global Audit: Nuclear Medicine SPECT/CT

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Bringing the latest in Technology & Innovation for cancer treatment to Phuket, Thailand



Medical Equipment Displayed

Recommendation: NMCT 870CZT – True Digital – **SPECT/CT** humanLAB

Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

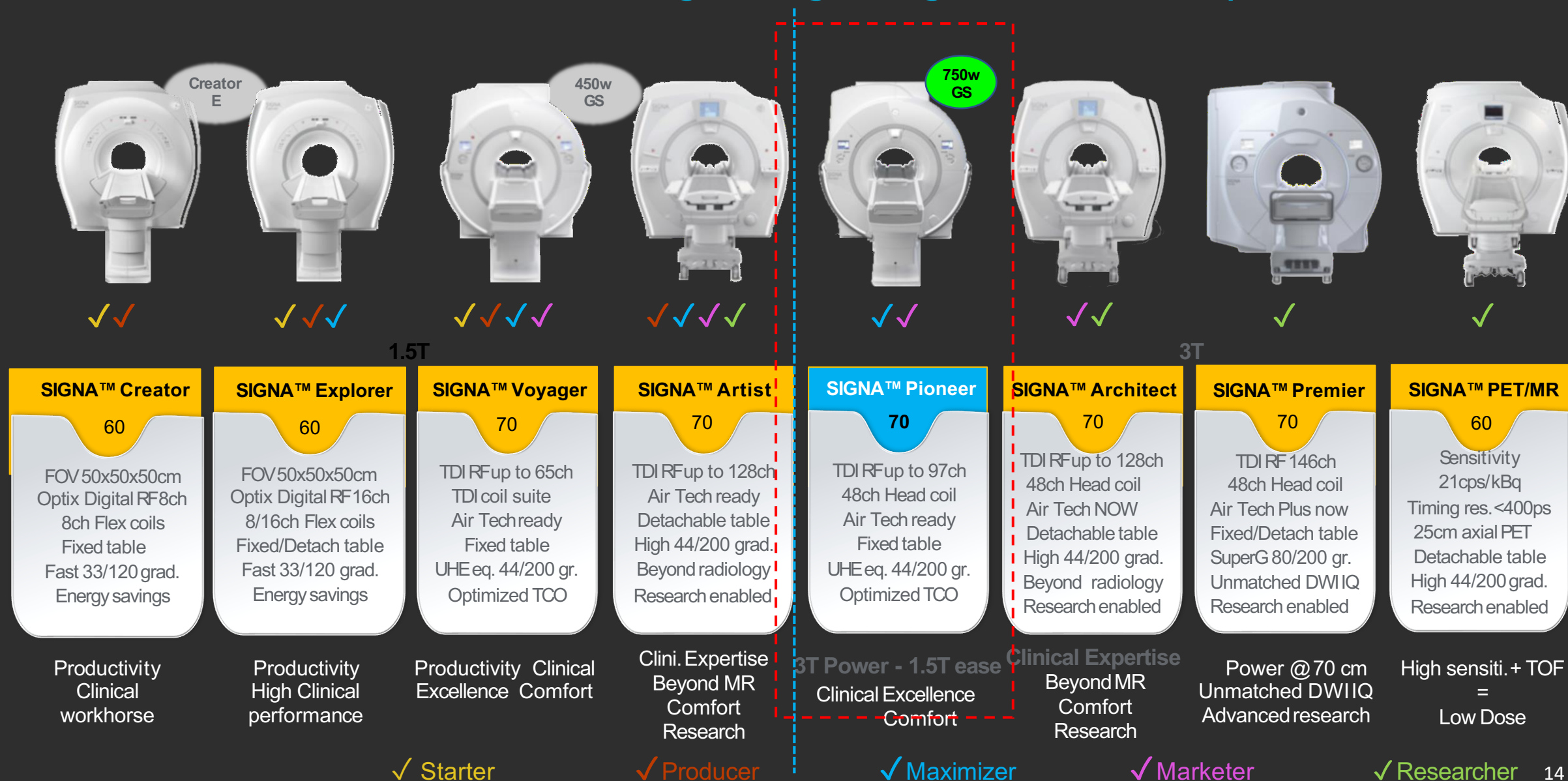
A **3rd generation CZT-based digital SPECT/CT** enables increased quantity & quality of research so :



- **Simultaneous dual-isotope imaging** (SDIS) through improved energy resolution of 6.3% versus 9.5% (Conventional)
- The Small Pixelated **CZT detector** (Digital)
- Diagnosis and treatment plan efficiencies
- **Low energy and Medium Energy** supported (eg., Tc99m and Lu177)
- Single breath-hold scans, 0.5-second rotation with high image quality
- Advance CT features, including **Smart MAR** and **ASiR**
- **Smart Console** workflow
- Effortless quantitation with **Q.Volumetrix**
- **Dosimetry tool** for Radio Isotope Treatment planning.

MR Global Portfolio - Reaching the right diagnosis, effortlessly

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Recommendation: MR SIGNA™ Pioneer 3.0T

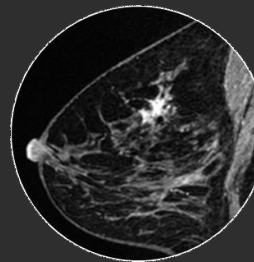
Bringing the latest in Technology for cancer treatment to Thailand

Key Features:

- Pioneering 97ch RF Technology
- Ultra High Efficiency Gradient Technology 45/200 Performance
- MAGiC FSE & MAGiC DWI
- DISCO, Turbo LAVA - Perfusion studies
- OncoQuant - for treatment follow up
- PROView, GenIQ - Multiparametric MRI

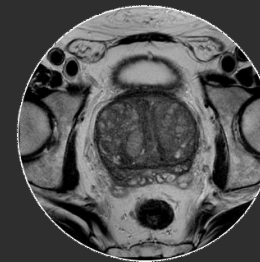
Oncology Package includes:

- AIR Coil & TDI Coil Suite
- AIRx, AIR Touch & AIR Recon
- SIGNA™ Works & OncoWorks
- HyperWorks package
- HyperSense, HyperCube, HyperBand



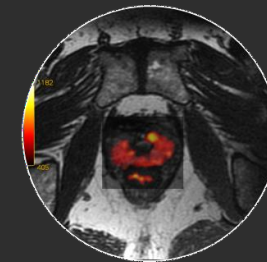
Dynamic T1

- DISCO
- LAVA
- VIBRANT



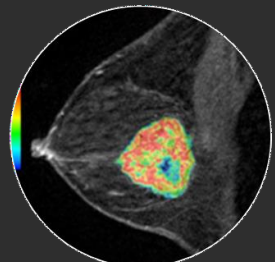
Motion Insensitive

- PROPELLER



Quantification

- FOCUS DWI
- MAGiC DWI
- eDWI
- GenIQ, Proview



Visualization

- READYView/ Body View
- OncoQuant
- CADstream

Global Audit: PET/CT Scanners

Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

Discovery IQ (3-5 Ring)

Image Quality. Intelligent Quantitation.



Clinical Excellence in PET/CT

Efficiency, productivity & profitability including revolutionary technologies which allow you to get the most out of your asset

Discovery MI-DR (3 Ring)

Digital Ready. Future Ready.



Ready for the Future

A premium TOF PET/CT system with the added flexibility of a standalone diagnostic CT and clinical versatility you need to expand your practice beyond FDG and oncology.

Discovery MI (3-5 Ring)

Molecular Imaging. Meaningful Insight.



True Discovery

Discovery MI is the only PET/CT system that brings together the sensitivity of digital detection with the most innovative reconstruction technology available, the combination of Time-of-Flight and Q.Clear.

Recommendation: Discovery MI 5 ring – PET/CT

Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

- Scalable design configured with AFOV 25cm
- Powerful 128 slice CT
- Compact Chiller for detector management
- GEUnique – Reconstruction algorithm Q-Clear for full convergence and MotionFree application for Integrated 4D PETCT



Medical Equipment Displayed

Oncology Package includes:

- CortexID – Neuro Application with MR fusion
- MotionFree protocols – Digital 4D gating for all patients
- PET VCAR
- RT Planning Segmentation Tool



PET VCAR

Quantitative monitoring of disease progression and response to treatment

CANCER DIAGNOSTIC IMAGING EQUIPMENT

What is available in
Thailand today?

Overview of DIAGNOSTIC IMAGING Equipment available in Thailand today.



SPEC/CT
NMCT 870CZT



PET/CT
Discovery MI - 5 Rings

11

3



117



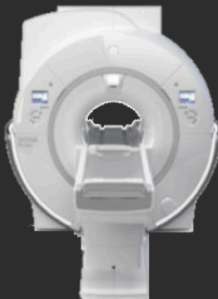
Discovery RT

118



CT SCANNER
Revolution CT
Mammography

29



MRI

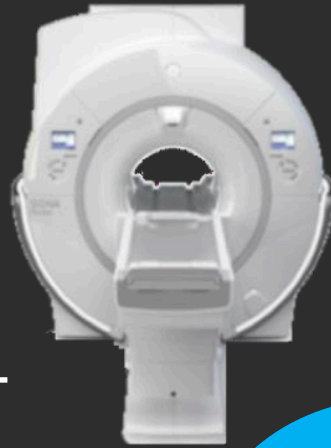
193



3D

RECOMMENDATION SUMMARY

MRI SIGNA™ Pioneer 3.0T



CT SIM- Revolution CTEX Scanner



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PET/CT –Discovery 5 Rings



BAAN JAI SAI
DIAGNOSTIC
RECOMMENDATIONS

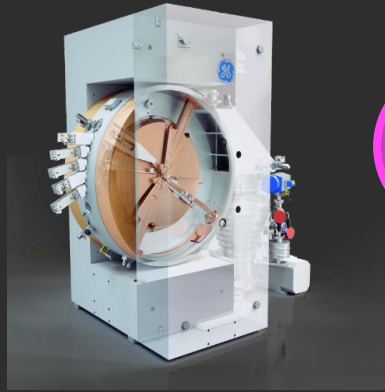
SPECT/CT -NMCT 870CZT – True Digital



CANCER TREATMENT EQUIPMENT

BJs propose to offer
THE MOST Innovative
treatments in Asia.

Overview of **Cancer TREATMENT** Equipment available in Thailand today.



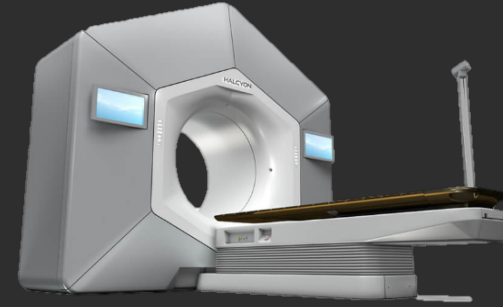
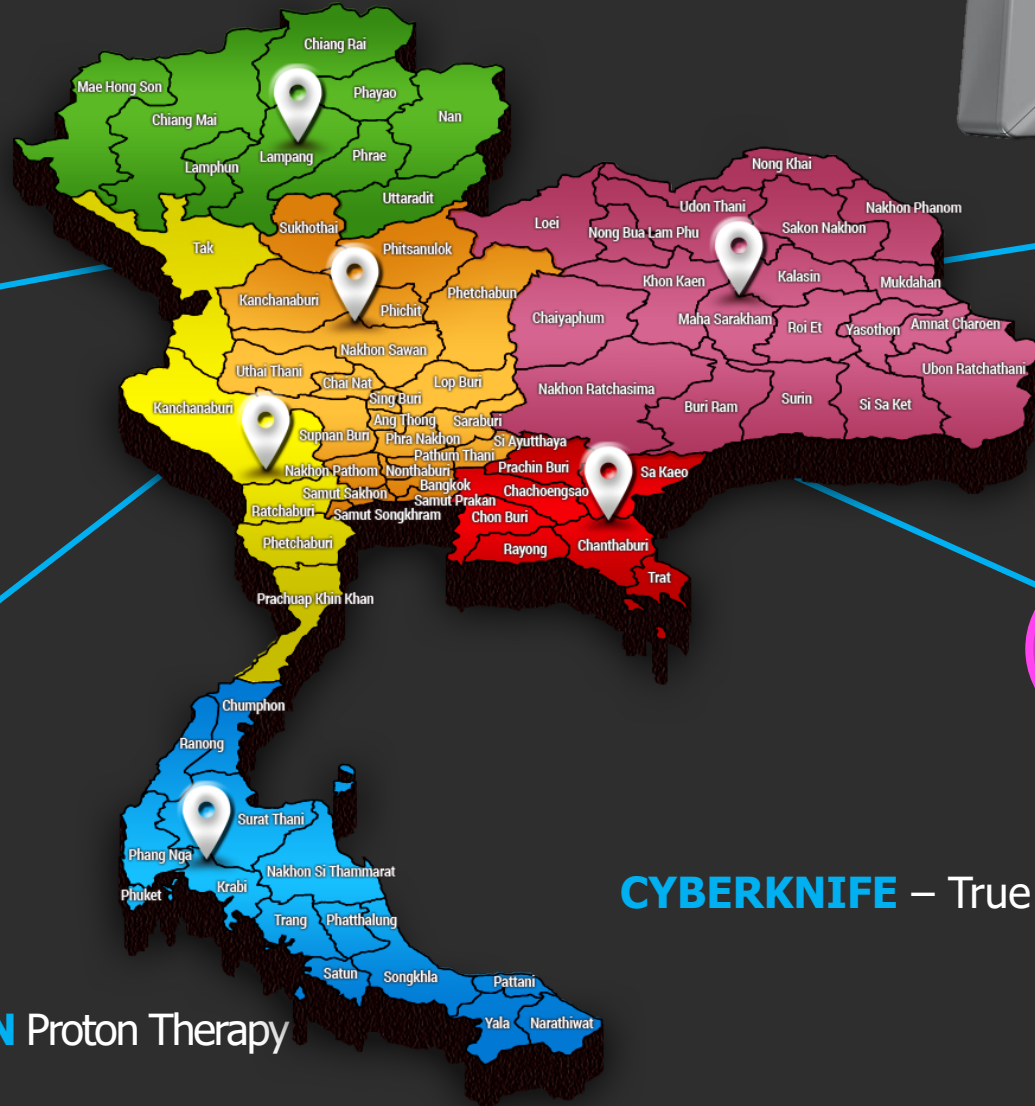
CYCLTRON – Mini Trace

NEW



IBA CYCLOTRON Proton Therapy

2



HALCYON by Varian

1

NEW

CYBERKNIFE – True Digital



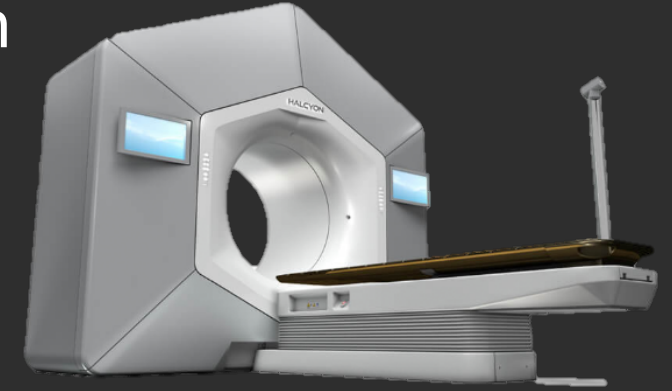
RECOMMENDATIONS for BJS:

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IBA CYCLTRON
— Proton Therapy



HALCYON - Varian



BAAN JAI SAI
TREATMENTS
RECOMMENDATIONS

CYCLTRON — Mini Trace



CYBERKNIFE — True Digital



Recommendation: Cyclotron Mini-Trace

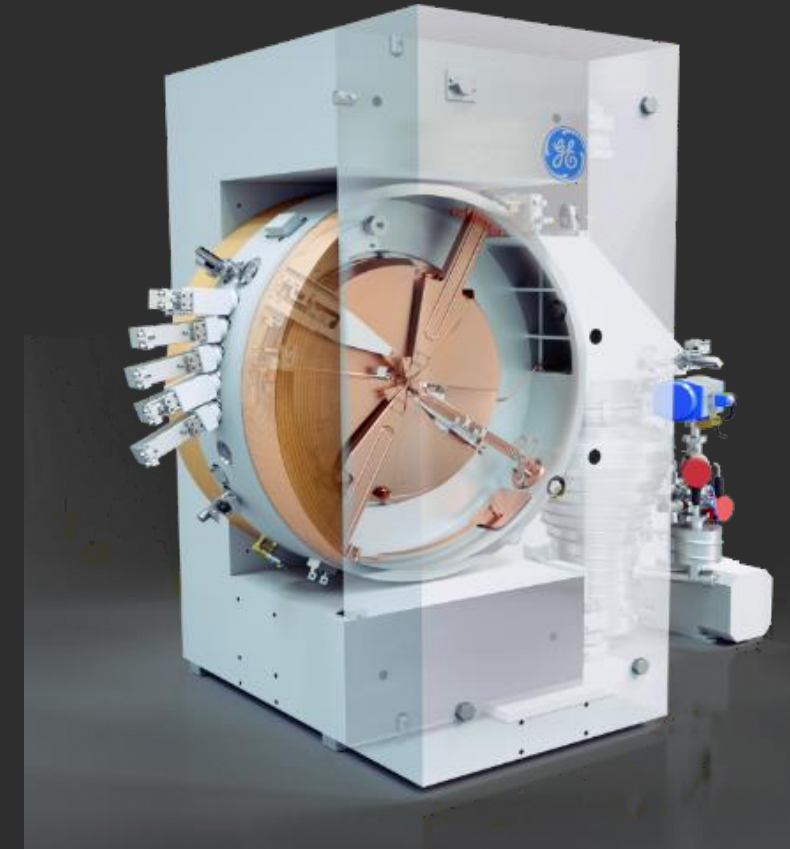
Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

Key Features

- All Major PET tracer production capability -F18, C11, N13, O15 & Ga68
- **Ability to Distribute 50 Patients dose (4-5 PETCT Centers in one full run – 2 Hours)**
- Scalable platform to additional targets depends on market demand (Cardiology and Neurology)
- GMP complied, self shielded cyclotron

Key Inclusions for Oncology Package

- **Configured with FDG and Ga68 with option to upgrade to Ammonia**



RECOMMENDATION: CyberKnife

Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

CyberKnife System is the only fully robotic radiotherapy device.



Uses an approach called stereotactic body radiation therapy (SRS SBRT), delivering precise doses of radiation with extreme accuracy while accounting for tumor and or patient movement in real-time.

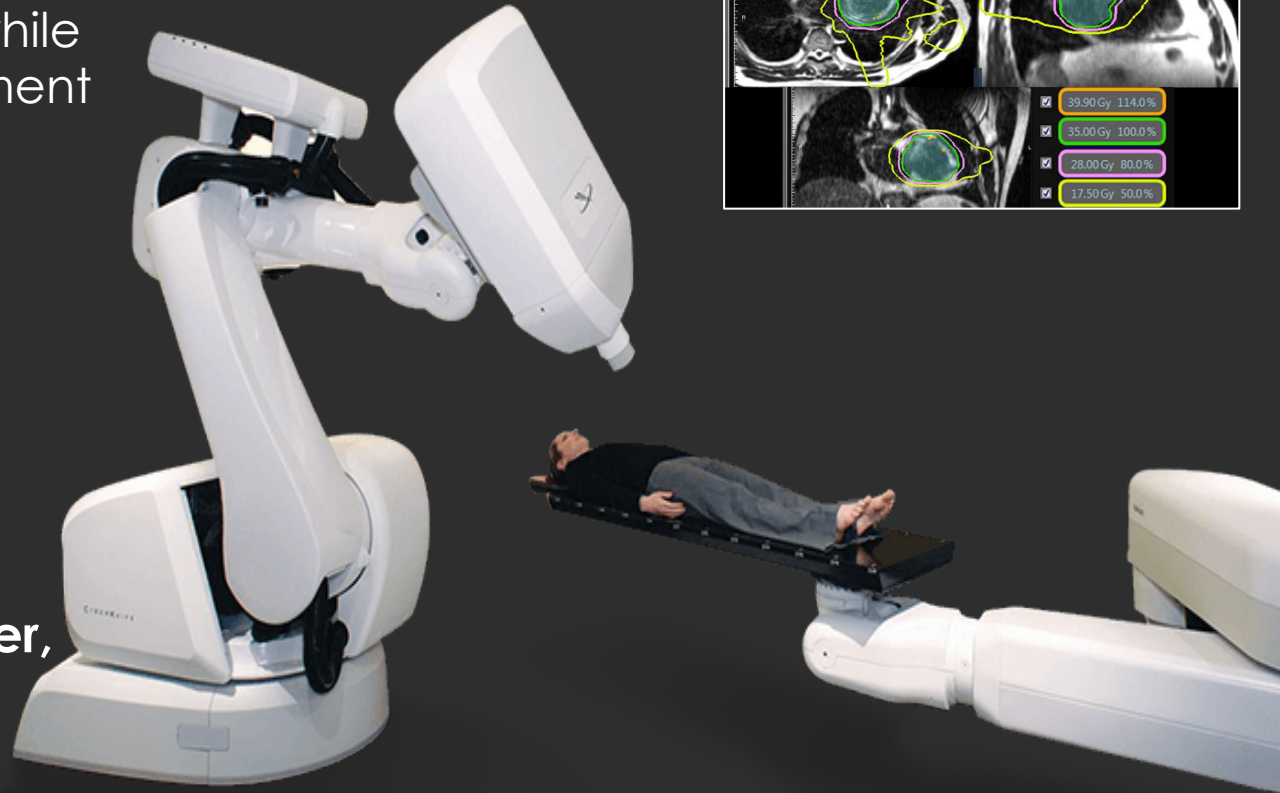
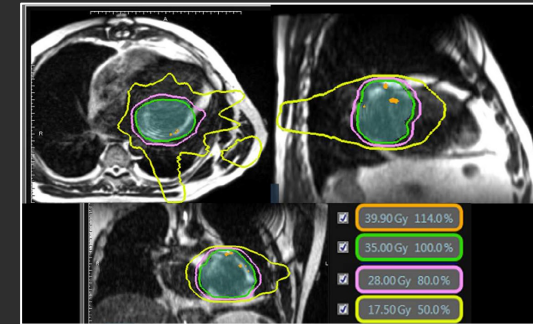


Patient Benefits:

- **non-invasive**
- **pain-free,**
- **no anaesthesia**
- **outpatient procedure**
- **no rehabilitation**



CyberKnife treats; **Brain tumors, breast, liver, lung, pancreatic & prostate cancer**



RECOMMENDATION: Cyclotron Proton Therapy humanLAB

Bringing the latest in Technology & Innovation for cancer treatment to Phuket Thailand

2nd

Proton radiation therapy treatment facility in Thailand. 1st in Phuket.



Why Proton therapy? It is safer than conventional radiation therapy. Delivering a high dose to a very specific area, with minimal impact on surrounding tissues. It destroys cancer cells causing less damage to surrounding healthy tissue.



Clinically proven to be the most effective treatment for children.



350-400 patients per year can ONLY be treated with Proton therapy. ฟีนฟู Children's Program



Additional benefits BJS propose to bring to Phuket, Thailand



ฟันฟู Children's Program





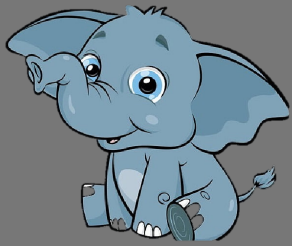
They ride scooters in the hallway, not in the
park.

They know the names of their chemo instead
of their classmates.

Nurses and doctors are their new family.
Their laughter will make a heart melt.

Their strength will make a grown person cry.

If you've ever seen a kid fight cancer, it will
change your life forever.



ฟันฟู Children's Program

We intend to establish an underprivileged children's program.

Working title: ฟันฟู

Whereby we treat - free of charge – Thai children who must battle cancer & cannot otherwise have access to treatment like Proton therapy.

We understand the strain & stress their fight has on parents & we aim to keep parents by their children's side during every moment of their fight against cancer.

A % of ALL Proton Therapy treatment will be free & allocated to children.



พินฟู Children's Program

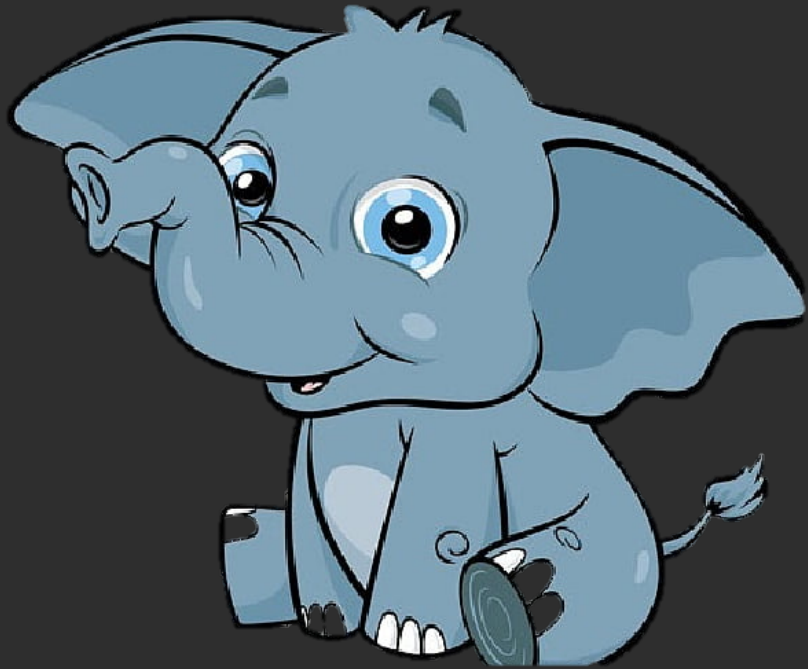
Our mascot พินฟู the elephant will support each child throughout their treatment program.

Every child selects their very own elephant & adopts them when they check-in. Wrist band, name & all.

พินฟู acts as their trusted friend & "security blanket."



National Competition to Drive Awareness



**What is the name
of our mascot?**

- Thai name required

Local Employment Growth

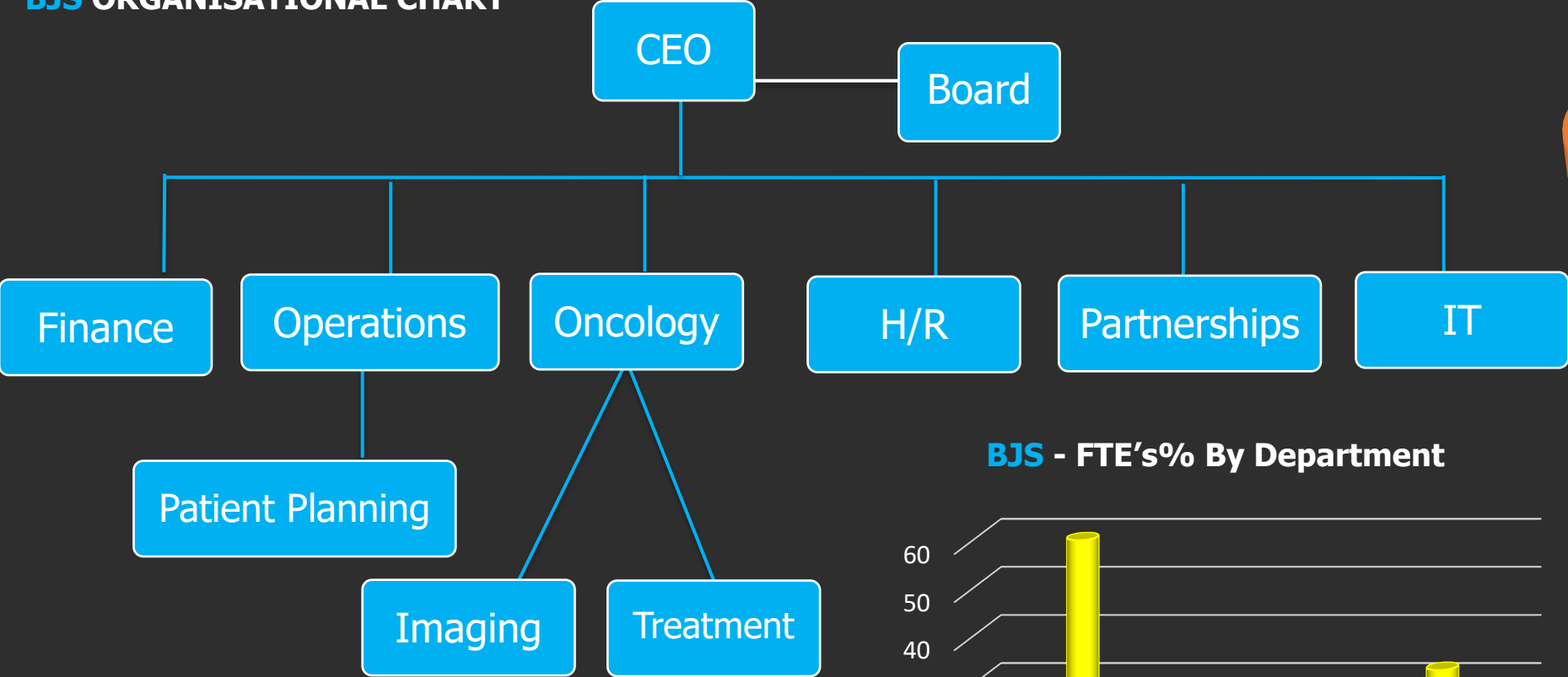
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We intend to employee, train & upgrade the skillsets of **90-100** new oncologists, surgeons, doctors & nurses throughout Thailand.

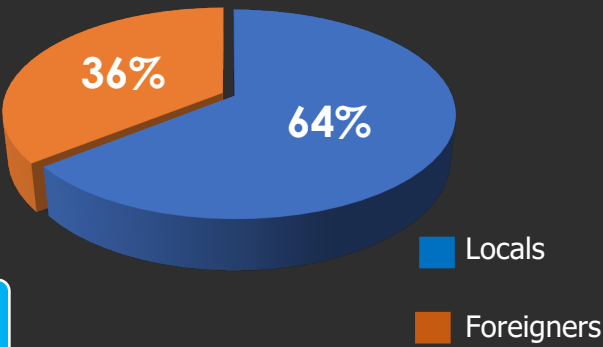


BJS - Human Resourcing Plan

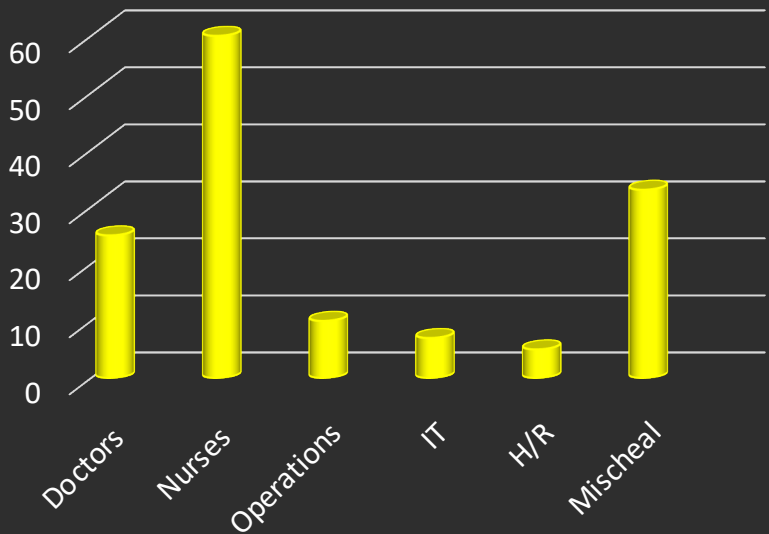
BJS ORGANISATIONAL CHART



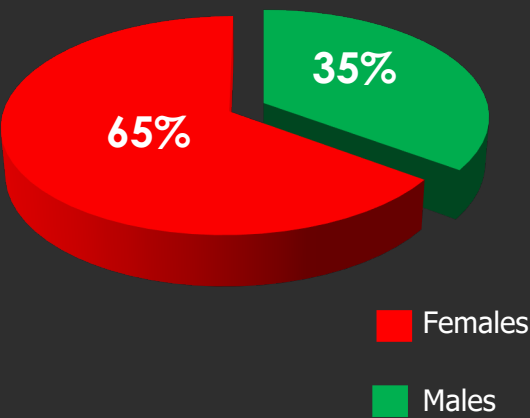
BJS - FTE's Locals vs. Foreigners



BJS - FTE's% By Department



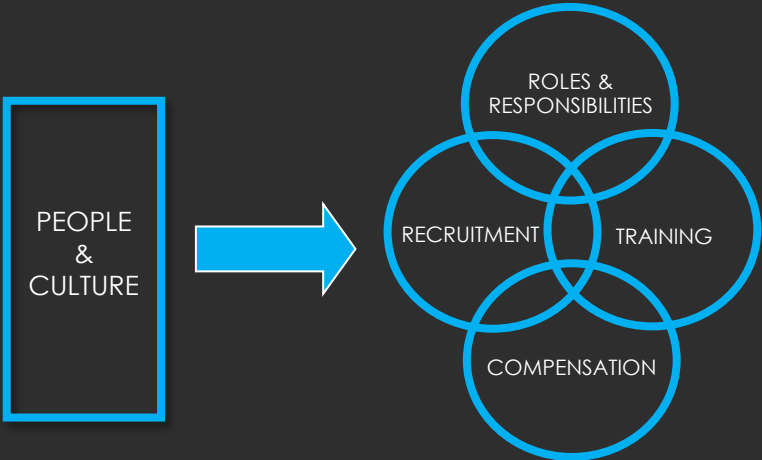
BJS - Gender Split %



BJS – Human Resourcing Plan

Building a World Class Oncology Center of Excellence in Phuket Thailand

BJS HIRING MODEL

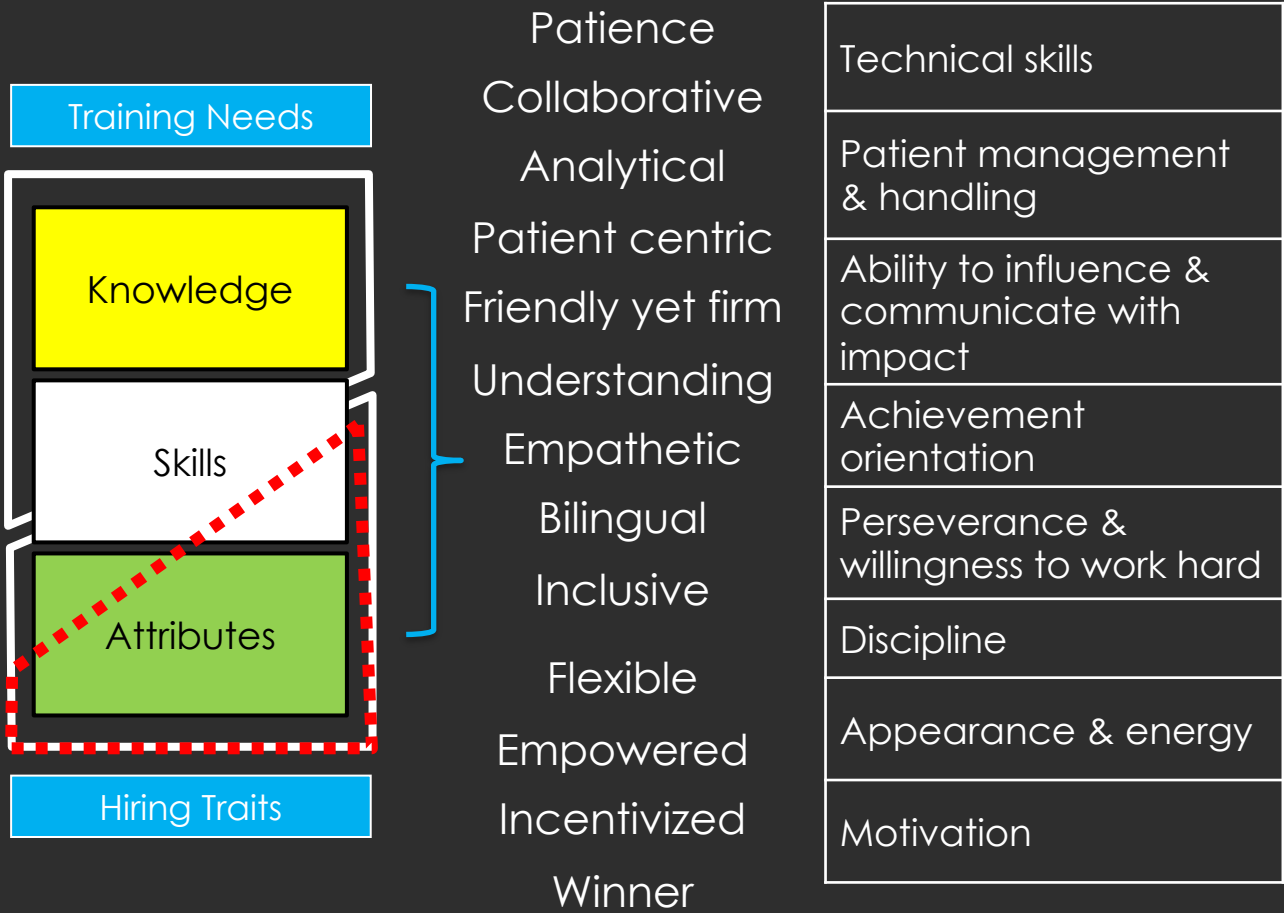


BJS BEHAVIOURAL TRAITS

CARES



BJS EMPLOYEE PROFILE



TARGET USER

Locals



International



**Under Privileged
Children**



CAPITAL INVESTMENT

Oncology Center of Excellence

Capital Investment on Cancer Care Equipment

BJS intent is to bring the latest in Technology & Innovation for cancer Diagnosis & Treatments to Phuket Thailand

DIAGNOSTIC IMAGING

1. CT Scanner
2. SPECT/CT
3. MRI
4. PET/CT
5. CT Sim
6. Mammography
7. Ultrasound
8. X-Ray

APPROX.
USD \$12.7 m

TREATMENT

1. Proton Radiation Therapy
2. Halcyon Treatment
3. CyberKnife Radiation Therapy
4. Lu 177 Isotope Treatment
5. Stem Cell Therapy
6. Chemotherapy
7. Isotope Production
 - FDG
 - Ga 68
 - Ammonia

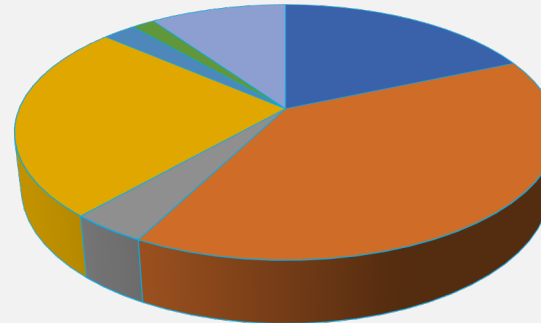
APPROX.
USD \$45.9 m

Capital Investment on Cancer Equipment

BJS - Technology & Innovation for cancer Diagnosis & Treatments to Phuket

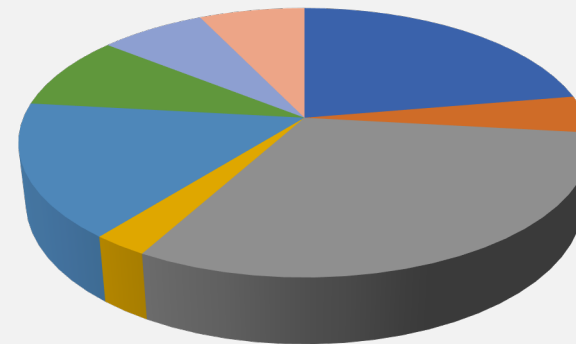
initial investment		฿ 2,578,651,551
capex		
	diagnostic equipment	฿ 478,128,971
	treatment equipment	฿ 1,008,000,000
	OIS/TPS software	฿ 100,000,000
	building	฿ 640,000,000
soft costs		
	development	฿ 60,000,000
	capitalized financial costs	฿ 42,522,579
	pre-operational & start up expenses	฿ 250,000,000
yearly operational expenditures (OPEX)		฿ 452,893,013
fixed opex		
	clinical staff	฿ 113,223,253.16
	training of staff	฿ 22,644,650.63
	equipment operation & maintenance	฿ 158,512,554.42
	building maintenace& cleaning	฿ 13,586,790.38
	property insurance	฿ 81,520,742.27
	general &administrative	฿ 45,289,301.26
variable opex		
	patients supplies	฿ 36,231,441.01
	power equipment	฿ 36,231,441.01

฿2,578,651,551



- diagnostic equipment
- treatment equipment
- OIS/TPS software
- building
- development
- capitalized financial costs
- pre-operational & start up expenses

฿452,893,013



- clinical staff
- training of staff
- equipment operation & maintenance
- building maintenace& cleaning
- property insurance
- general &administrative
- patients supplies
- power equipment

GLOBAL vs. LOCAL PARTNERSHIPS

Oncology Center of Excellence

Centro de Protonterapia

University Hospital Madrid, Spain

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**GLOBAL & LOCAL
PARTNERSHIPS**



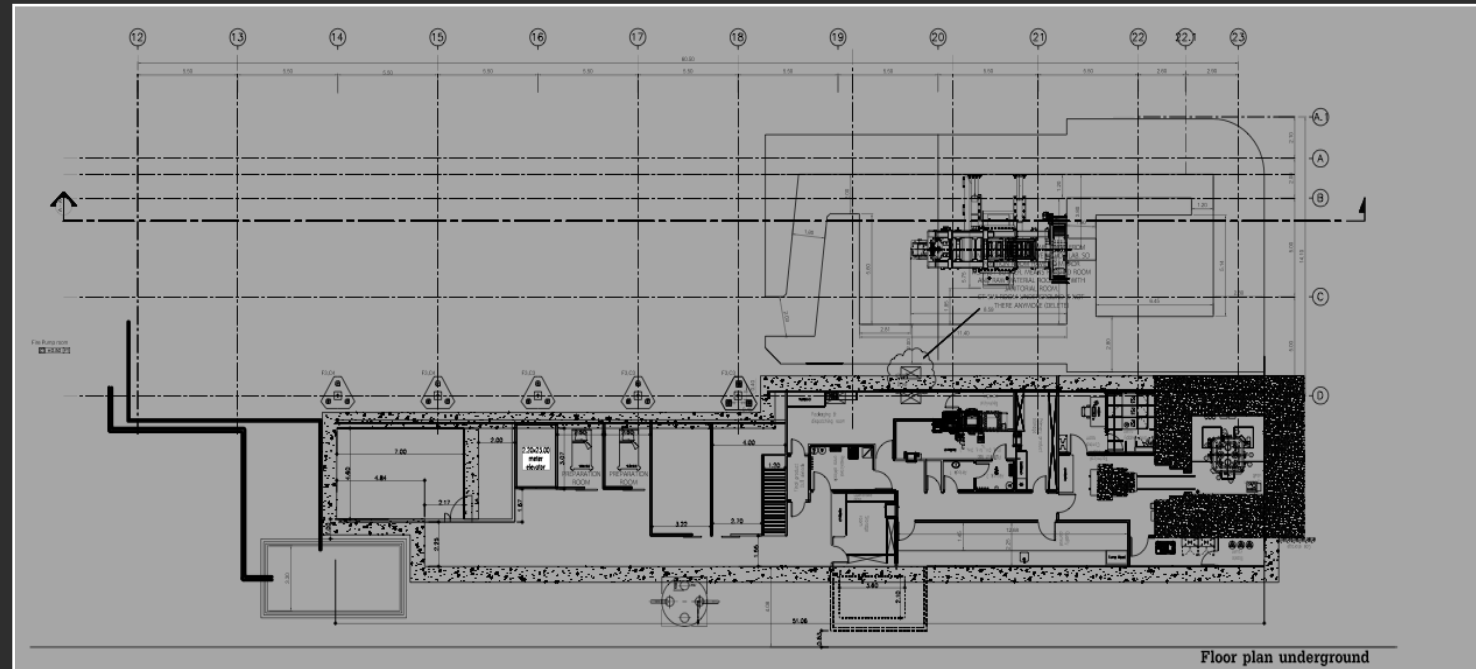
BAAN JAI SAI

Oncology Center of Excellence...

Baan Jai Sai Oncology Center of Excellence

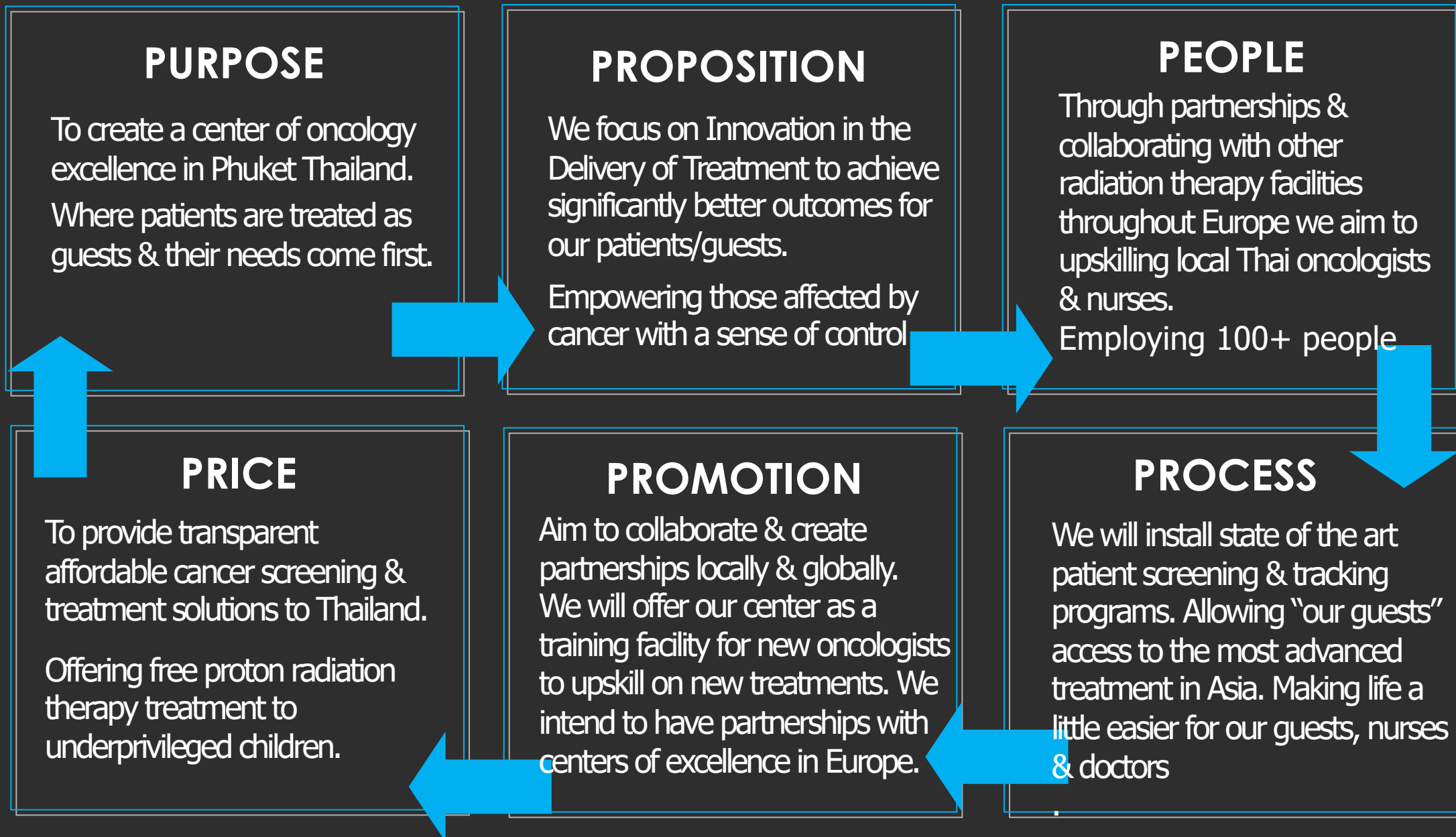
6 Floors of state-of-the-art Equipment:

- ❑ Cancer Screening
- ❑ Radiation Therapy
- ❑ Proton Radiation Therapy
- ❑ Cyber Knife Treatment
- ❑ Halcyon Treatment
- ❑ Chemotherapy
- ❑ Lu 177 Isotope Treatment
- ❑ Stem Cells Therapy
- ❑ Isotope Production



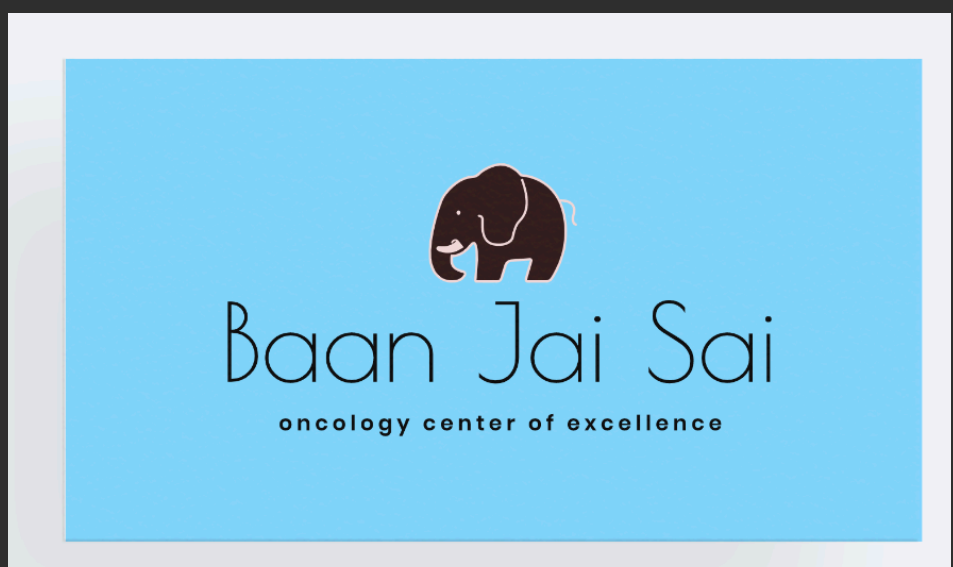
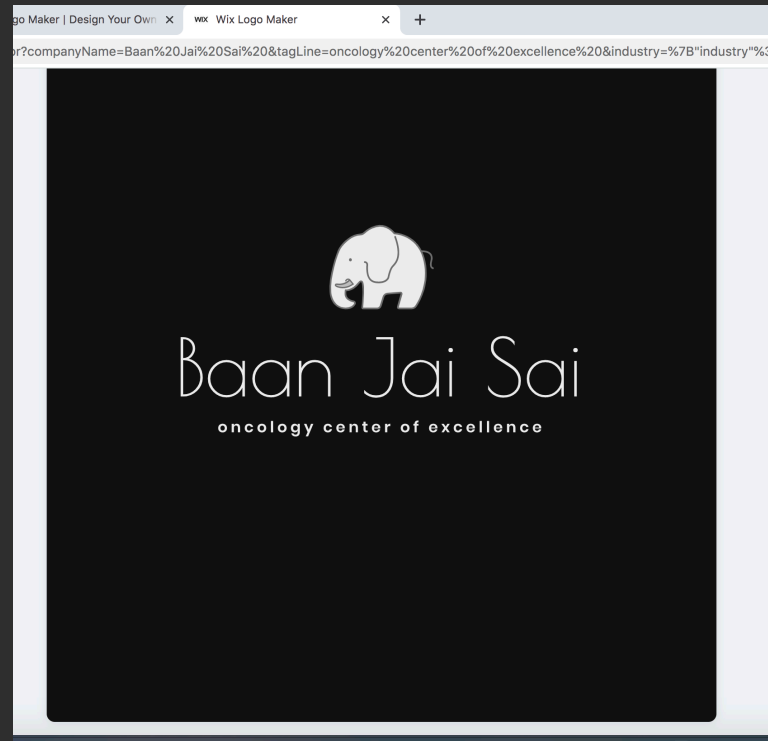
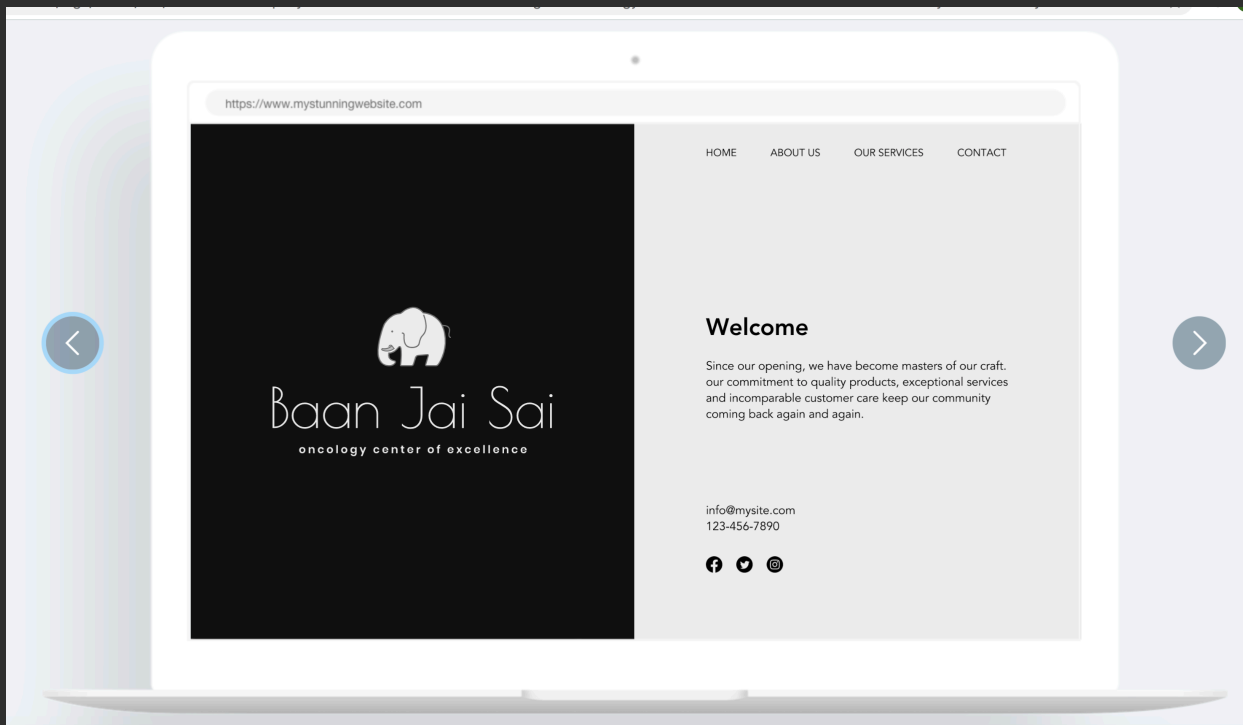
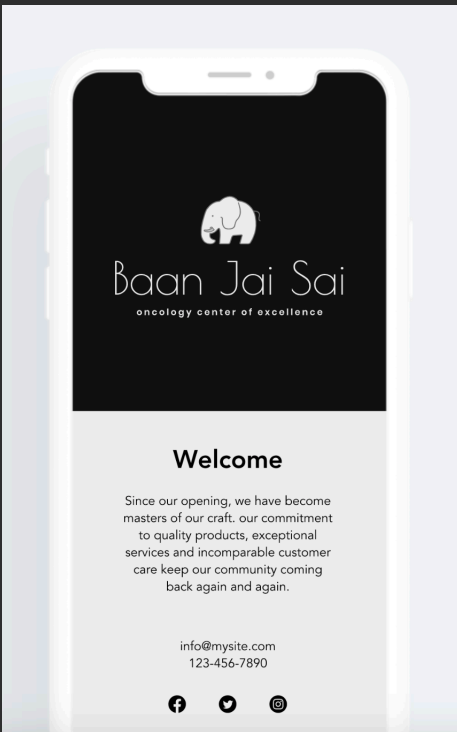
PARTNERSHIP PROGRAM MARKETING PLAN

Oncology Center of Excellence



BRANDING

Oncology Center of Excellence



Thank You

Oncology Center of Excellence



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Christopher Lyons

Retail Behavioral Strategist

+66-99-334-1108.

humanLAB.christopher@gmail.com

