### Past, Present, and Future of

# Radiation Therapy and Theranostics

PRESENTED BY

#### DR. KRISHNAN SUTHANTHIRAN







































# Welcome to Our World

### **TeamBest Global**

www.teambest.com

Ready to serve all your needs globally

#### **NON-PROFIT**

- Best Cure Foundation www.bestcure.md
- Brachytherapy Research & Educational Foundation www.brachytherapy.org
- Global Best Cure Foundation www.globalbestcure.org

#### **FOR-PROFIT**

- Arplay Medical www.arplay.com
- Best ABT www.bestabt.com
- Best Automation & Robotics www.teambestautomation.com

- Best Cyclotron Systems, Inc. www.bestcyclotron.com
- Best Dosimetry Services www.bestdosimetry.com
- Best Entertainment www.bestentertainment.ca
- Best Medical Canada www.bestmedical.ca or www.mosfet.ca
- Best Medical Capital, Inc. www.teambest.com
- Best Medical International www.bestmedical.com
- Best NOMOS www.nomos.com

- Best Particle Therapy www.bestproton.com
- Best Theratronics www.theratronics.com
- Best Vascular (Novoste) www.bestvascular.com or www.novoste.com
- CNMC Company www.cnmcco.com
- Huestis Medical www.huestis.com
- Kitsault Energy www.kitsaultenergy.com



#### Best GammaBeam™ 100/300 Equinox™ Teletherapy System with Avanza™ 6D Patient Positioning Table

With **NEW** Multi-Leaf Collimator for 80 and 100 cm SAD units—IMRT, IGRT, SRS, SBRT and Tomotherapy capable with ActiveRx





Best™ Raycell Mk2 Blood & Research Irradiator



UPGRADE KIT for all old Theratron units. 80 or 100 cm

including IMRT capabilities w/built in or external MLC



#### **Upgrade includes:**

- Removing all old controls, electronics and installing a new control system and covers
- Replacing the old collimator system with the new Equinox collimator
- Replacing the old treatment table with the new Avanza™
   Table
- Retaining the head rotation capability is optional

#### **Upgrade features:**

- Calculated Arc Speed
- Graphical Control System
- Asymmetric Jaws (optional)
- R&V System Ready (optional)
- Service Log Files
- On-Board Verification
- Motorized Wedge (optional)
- Collision Detection (optional)

Best™ Raycell X40 X-ray Research Irradiator



Best Theratronics, Ltd.



# Best medical international Best nomos

# **Best<sup>™</sup> Integrated Brachytherapy Solutions**

You don't go to a shoe store and cut your feet to fit the shoe they have in stock—then why compromise when it comes to improving the clinical outcome for your patient?

Best Medical is the <u>only</u> company that makes custom seeds and strands to meet your exact specifications—shipped within 24 hours,
7 days a week, sterile and non-sterile!



Best™ Model BG-95

SUB-COMPACT SELF-SHIELDED CYCLOTRON FOR PRODUCTION OF: 18FDG, NA<sup>18</sup>F, 18F-MISO, 18FLT, 18F-CHOLINE, 18F-DOPA, 18F-PSMA, 13N AND 88GA



Best™ Model 15p COMPACT HIGH CURRENT/VARIABLE ENERGY PROTON CYCLOTRON



CYCLOTRON



Best™ Model B35ADP

ALPHA/DEUTERON/PROTON

CYCLOTRON

#### **Cyclotrons of Varying Energies** Capable of producing: 18FDG and Na18F • Single or batch dose B100 production • Integrated self-shielded cyclotron, chemistry 7.5 MeV CYCLOTRON module and FDG QC module . Complete pro-duction lab in a Low energy, self-shielded compact system capable of BG-95 1-9.5 producing: 18FDG, Na18F, 18F-MISO, 18FLT, 18F-Choline, CYCLOTRON MeV 18F-DOPA, 18F-PSMA, 13N and 68Ga 1-3 MeV Deuterons for materials analysis\* Best 70-200 MeV For Proton Therapy\* B6-15 Proton only, capable of high current up to 1000 Micro Amps, for 1-15 MeV medical radioisotopes CYCLOTRON B25 20.15-25 Proton only, capable of high current up to 1000 Micro Amps, for CYCLOTRON medical radioisotopes B25u-35adp 25-35 Proton or alpha/deuteron/proton, capable of high current up to CYCLOTRON 1000 Micro Amps, for medical radioisotopes **B35** CYCLOTRON 35 MeV 35-70 B70/70adp Proton only or alpha/deurotron/proton systems, capable of high current up to 1000 Micro Amps, for medical radioisotopes CYCLOTRON

Some products are under development and not available for sale currently

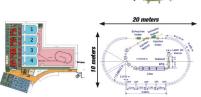






lon Rapid Cycling Medical Synchrotron (iRCMS) 200-400 MeV Variable Energy for Proton to Carbon Heavy Ion Radiation Therapy





# Best Cyclotron Systems Best Theratronics, Ltd.

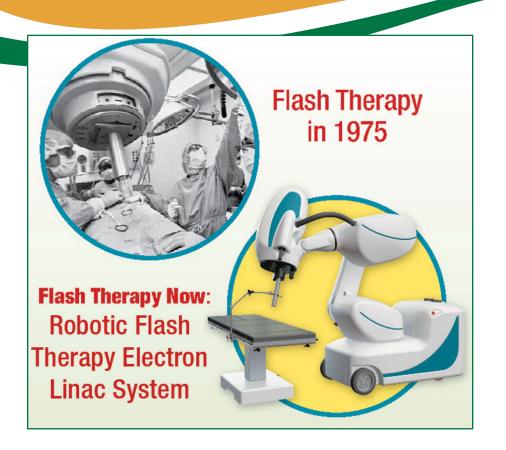
TEAMBEST GLOBAL COMPANIES

Turnkey solutions for radioisotope production in nuclear medicine

# Best Teletherapy Solutions









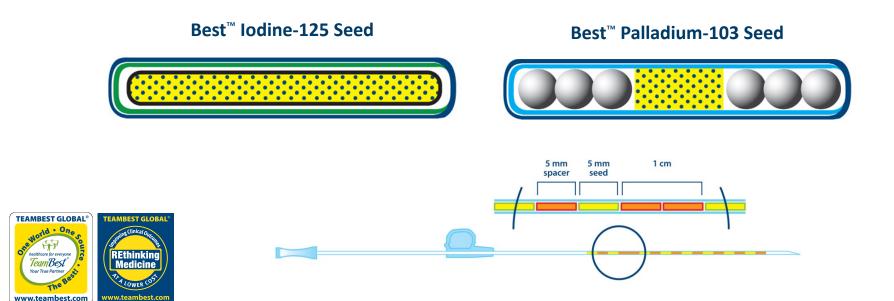


# Best Brachytherapy Solutions





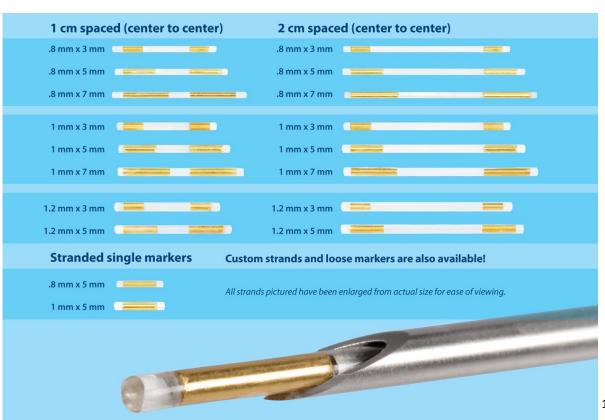
### **Best<sup>™</sup> Seeds for Brachytherapy**



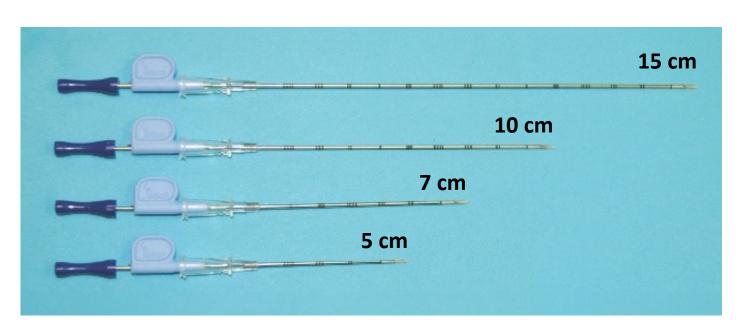
# Best<sup>™</sup> Radiopaque Gold Marker Strands





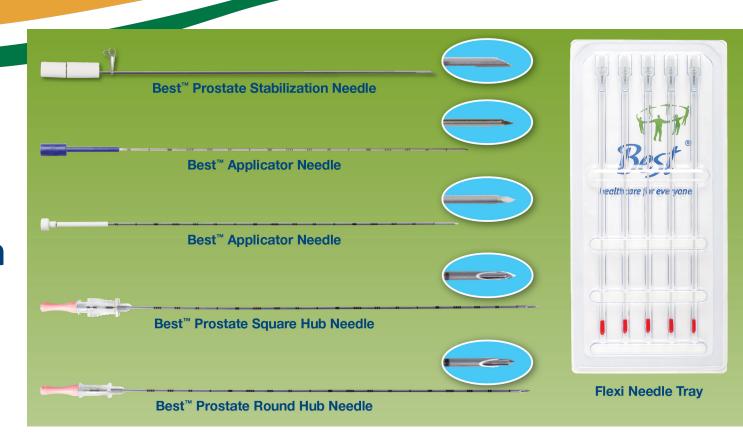


### **Best<sup>™</sup> Localization Needles**

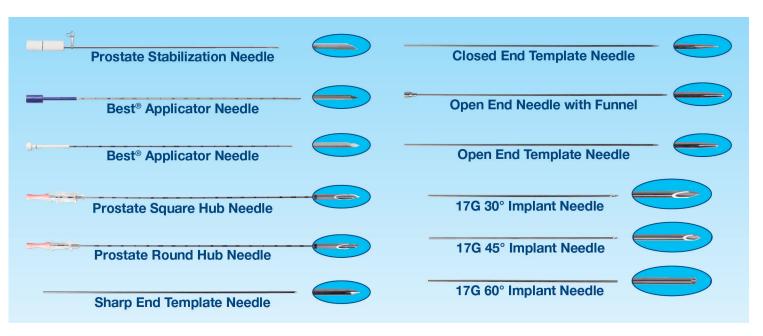


### Best<sup>™</sup> Flexi and Localization Needles

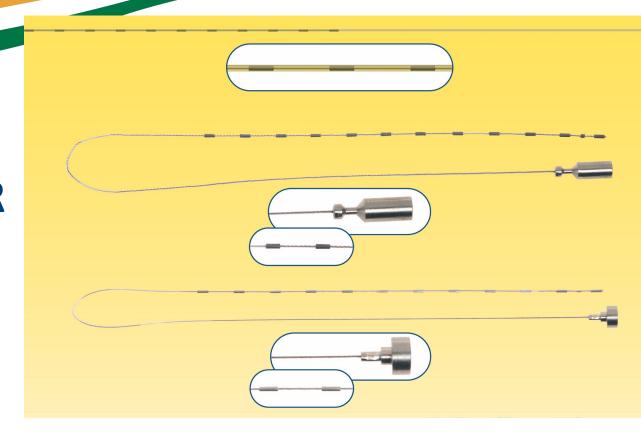




### **Best<sup>™</sup> Brachytherapy Needles**



## Best<sup>™</sup> LDR/HDR Accessories







Best<sup>™</sup> **Brachytherapy** Kit for Interstitial **Applications** 





**5 Stylets with Hubs** 



5 Half Moon Buttons\*\*





\*\* Half Moon Buttons are available in radiopaque (pictured) or clear nylon.

#### **5 Single Leader Catheters\***

\* Catheter tubes are available in 5 colors (purple, green, yellow, clear or blue) with either radiopaque or clear nylon buttons.

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### INTRACAVITARY AND INTERSTITIAL RADIATION THERAPY IN THE MANAGEMENT OF NASOPHARYNGEAL CANCERS

Ulrich K. Henschke MD, PhD 420 East 66th Street New York, N.Y. 10021

Invited paper and exhibit presented at the XII International Congress of Radiology in Tokyo, Japan, October 6-11, 1969. Based on clinical and experimental work carried out in cooperation with Basil S. Hilaris MD, John S. Lewis MD, David G. Mahan BA, and Felix W. Mick and supported in part by PHS grant CS 9369.

#### INTRACAVITARY APPLICATIONS

We have used intracavitary applications routinely in combination with external supervoltage radiation-therapy for the primary treatment of all nasopharyngeal cancers.

As in the treatment of cancer of the uterine cervix, this combination of intracavitary and external radiation results in a better dose distribution and permits a higher tumor dose. And only with the help of an intracavitary applicator is it possible to deliver to the cancerbearing portions of the nasopharynx a higher dose than to the normal portions.

Intracavitary applications have been greatly facilitated by the remote afterloader, which we first described in 1964. It has three small cobalt-60 sources, each one millimeter in diameter and 500 to 1000 millicuries. During the treatment, the patient remains in a well shielded room, and the sources are inserted by remote control from a separate control room into the previously positioned nasopharynx applicator.

For the patient, the remote afterloader provides greater comfort due to the short treatment times of 10 to 20 minutes. For the physicians and the technicians, it completely eliminates radiationexposure.

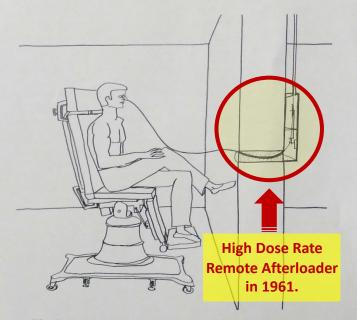


Fig. 1. Remote afterloading of intracavitary nasopharynx applicator.



### Best<sup>™</sup> High Dose Rate Remote Afterloader in 2025





Best<sup>™</sup> Kobold Tandem and **Ring Applicator** 

## **Best<sup>™</sup> Kobold High Dose Rate Applicators**



Best<sup>™</sup> Kobold Henschke Tandem and Ovoid Applicator



**Best<sup>™</sup> Kobold Fletcher Tandem** and Ovoid Applicator





# **External Beam Cobalt-60 Gamma Beam Radiation Therapy Unit in 1951**

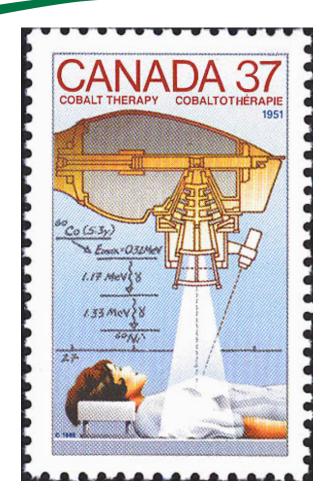


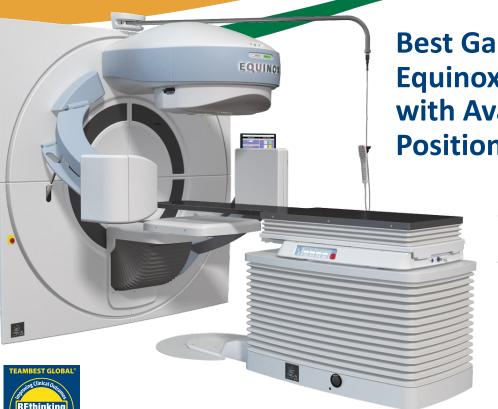


The Eldorado A at Victoria Hospital in London, Ontario in 1951.

The Canada Post issued a stamp commemorating the invention of the Cobalt-60 machine for External Beam Radiation Therapy for Cancer in Ottawa in 1951.





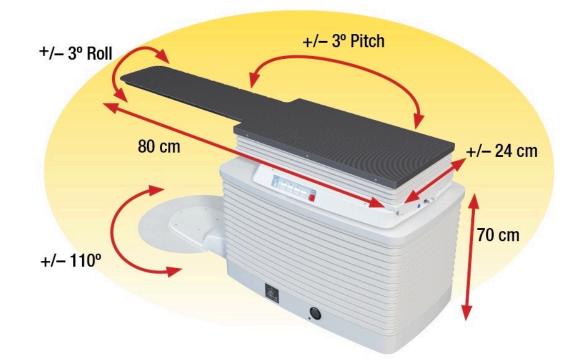


Best GammaBeam™ 300-100 CM Equinox™ Teletherapy System with Avanza™ 6D Patient Positioning Table

With **NEW** Multi-Leaf Collimator for 80 and 100 cm SAD units— IMRT, IGRT, SRS, SBRT and Tomotherapy capable with ActiveRx

# **Avanza<sup>™</sup> Patient Positioning Table**

The Avanza™ Patient Positioning
Table demonstrates a high level
of stability and accuracy for
treatment techniques that
require precision.







#### **UPGRADE** Kit

for all old Theratron units, 80 or 100 cm including IMRT capabilities w/built in or external MLC







#### **UPGRADE** includes:

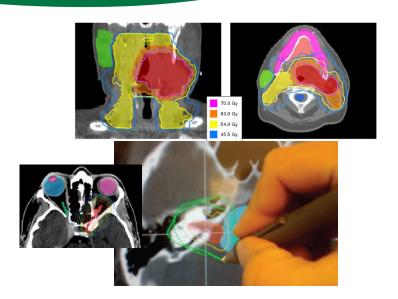
- Removing all old controls, electronics and installing a new control system and covers
- Replacing the old collimator system w/the new Equinox collimator
- Replacing the old treatment table w/the new Avanza™ Table
- Retaining the head rotation capability is optional

#### **UPGRADE** features:

- Calculated Arc Speed
- Graphical Control System
- Asymmetric Jaws (optional)
- R&V System Ready (optional)
- Service Log Files
- On-Board Verification
- Motorized Wedge (optional)
- Collision Detection (optional)



**Best<sup>™</sup> NOMOS Treatment Planning** System (TPS) for **Teletherapy and Brachytherapy** 



# **CORVUS® Treatment Planning System**







The Integrated External Beam Treatment Planning
System for LINAC and COBALT-60

# Best nomos ®

### Accomplishments from 1992 to ...

PEACOCK® World's First Commercial IMRT System introduced at ASTRO

First IMRT Inverse
Tx Planning System
– PEACOCK Plan

CORVUS® IMRT Treatment Planning System released nomosSTAT™ the only add-on Tomotherapy system introduced Sonalis® Simul-View™
Ultrasound Solution
for Prostate
Brachytherapy
introduced

Gamma Tomotherapy Cobalt-60 based Serial Tomotherapy introduced

1992

1997

1998

2004

2006

2007

2010

2012

2015

2017 and beyond

BAT® World's First Ultrasound based Patient Positioning System for External Beam Radiation Therapy introduced

ActiveRx<sup>™</sup> real-time, GUI based dose manipulation tools introduced in CORVUS BATCAM® Bat Multiprobe Solution Introduced for multi-organ positioning TargetScan®
Ultrasound based
Biopsy Guidance
Solution
introduced

Particle Therapy (Carbon & Proton) Solution

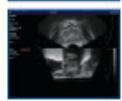
**R**obotic Radiosurgery Solution

# **Best<sup>™</sup> Ultrasound Imaging System**













# Best<sup>™</sup> Cyber Sonalis Ultrasound Imaging System

- Patented probe design with simultaneous imaging of sagittal and transverse planes
- Longitudinal array provides for 140 mm length of view encompassing the bladder, prostate and perineum
- Superior HD Image resolution for improved implant accuracy, speed and physician confidence level

- Advanced drawing and editing tools which include user-defined line widths and colors for fiducial and anatomical markers
- Advanced modular software design provides for future upgrade path via in-house and independently developed technologies
- System converts from stand-based to desktop without losing any functionality
- Supports more than 20 probes of various geometries and use locations

For more information please visit: http://www.teambest.com/videos/Best-Nomos-Compact-Sonalis.mp4







### Sonalis® transducers

#### **8L2A Linear Array**

Applications: Arterial, Carotid, Vascular Access, Venous



#### 12L5A Linear Array

Applications: Arterial, Breast, Carotid, Dialysis Access, Lung, Neonatal Hip, Nerve Block, Opthalmic, Testes, Thyroid, Vascular Access, Venous



#### 14L3 Linear Array

Applications: Arterial, Breast, Carotid, Dialysis Access, Lung, MSK, Neonatal Hip, Nerve Block, Opthalmic, Testes, Thyroid, Vascular Access, Venous



#### 15LW4 Linear Array

Applications: Arterial, Breast, Carotid, Dialysis Access, Lung, MSK, Neonatal Hip, Nerve Block, Opthalmic, Testes, Thyroid, Vascular Access, Venous

**Biopsy Kit Available** 



Applications: Arterial, Breast, Carotid, Dialysis Access, Lung, MSK, Neonatal Hip, Nerve Block, Opthalmic, Testes, Thyroid, Vascular Access, Venous

**Biopsy Kit Available** 



#### 15L4A Linear Array

Applications: Arterial, Breast, Carotid, Dialysis Access, Lung, MSK, Neonatal Hip, Nerve Block, Opthalmic, Thyroid, Vascular Access, Venous



#### 16L5 Linear Array

**Applications:** Breast, Lung, MSK, Nerve Block, Vascular Access

VET Biopsy Kit Available



#### 8V3 Phased Array Applications: Cardiac

Applications: Cardiac



#### 4V2A Phased Array

Applications: Cardiac, FAST, TCD



#### 5C2A Curved Array

Applications: Abdominal, FAST, Fetal Cardiac, MSK, OB/GYN, Renal, Thyroid, Visceral Biopsy Kit Available



#### 9MC3 Curved Array

**Applications:** Abdominal, Cardiac, Neonatal Head, Small Parts, Thyroid, Vascular Access



#### **8EC4A Endocavity**

Applications: OB/GYN, Prostate Biopsy Kit Available



#### XY-BI-Plane Phased Array

Applications: Cardiac, Vascular, Lung



#### 10EC4A Endocavity

Applications: OB/GYN, Prostate Biopsy Kit Available



#### 10BP4 Bi-Plane

Applications: Prostate



#### 8TE3 Trans-esophageal

Applications: Motorized Adult Multiplane TEE Probe



#### Pedoff

Applications: Cardiac



#### 16HL7 High Frequency Linear Array

Applications: MSK, Venous







**TEAMBEST GLOBAL®** 







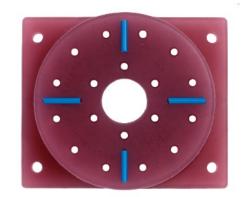








# **Best**<sup>™</sup> **Medical HDR/LDR GYN Template** (Disposable)









# **Best**<sup>™</sup> **Medical Central Rod** (Modified)















### Best<sup>™</sup> Dosimetry Services Personnel Radiation Monitoring









**Best<sup>™</sup> NOMOS Precision Stepper-Stabilizer** 









- Electronic
  - Variable Height Control
  - Variable Back Support
  - Variable Foot Support
  - Horizontal Tilt 12 Degrees Head or Foot
- 4-Function Hand-Held Pendant (Control)
- Removable Stainless Steel IV Pole
- Removable Foot Rest



### **AccuBoost® Partial Breast Radiotherapy**





## Best Cyclotron Systems

Turnkey solutions for radioisotope production in nuclear medicine





Best™ Model BG-95
Sub-Compact Self-Shielded
Cyclotron with Optional
Second Chemistry Module
and Novel Target









B15p PET 15 MeV 400 μA + Targets Radiochemistry B20u/25p 20/15-25 MeV 400 μA + Targets Radiochemistry

B30/35adp 30/15-35 MeV 400/1000 μA Targets Radiochemistry

35-70 MeV 1000 μA

B70p

Targets Radiochemistry





Each cyclotron allows production access to special radioisotopes.

B100 Cyclotron	7.5 MeV	<ul> <li>Capable of producing: ¹8 FDG and Na¹8 F</li> <li>Single or batch dose production</li> <li>Integrated self-shielded cyclotron, chemistry module and FDG QC module</li> <li>Complete production lab in a 5 x 5 meter area</li> </ul>
BG-95 Cyclotron	1-9.5 MeV	<ul> <li>Low energy, self-shielded compact system capable of producing: <sup>18</sup>FDG, Na<sup>18</sup>F, <sup>18</sup>F-MISO, <sup>18</sup>FLT, <sup>18</sup>F-Choline, <sup>18</sup>F-DOPA, <sup>18</sup>F-PSMA, <sup>13</sup>N and <sup>68</sup>Ga</li> </ul>
Best Cyclotrons	1-3 MeV	Deuterons for materials analysis*
	70-200 MeV	● For Proton Therapy*
	3-90 MeV	<ul> <li>High current proton beams for neutron production and delivery*</li> </ul>
B6-15 Cyclotron	1–15 MeV	<ul> <li>Proton only, capable of high current up to 1000 Micro Amps, for medical radioisotopes</li> </ul>
B25 Cyclotron	20, 15–25 MeV	<ul> <li>Proton only, capable of high current up to 1000 Micro Amps, for medical radioisotopes</li> </ul>
B25u-35adp Cyclotron	25–35 MeV	<ul> <li>Proton or alpha/deuteron/proton, capable of high current up to 1000 Micro Amps, for medical radioisotopes</li> </ul>
B35 Cyclotron	15–35 MeV	Proton only system for medical radioisotopes production
B70/70adp Cyclotron	35-70 MeV	Proton only or alpha/deurotron/proton systems, capable of high current up to 1000 Micro Amps, for medical radioisotopes

<sup>\*</sup>Some products are under development and not available for sale currently.



## **Best<sup>™</sup> 6–15 MeV Compact High Current/Variable Energy Proton Cyclotron**

- 1–1000 μA extracted beam current
- Capable of producing the following isotopes: <sup>18</sup>F, <sup>68</sup>Ga, <sup>89</sup>Zr, <sup>99m</sup>Tc, <sup>11</sup>C, <sup>13</sup>N, <sup>15</sup>O, <sup>64</sup>Cu, <sup>67</sup>Ga, <sup>111</sup>In, <sup>124</sup>I, <sup>225</sup>Ac and <sup>103</sup>Pd
- Up to 5 x 10<sup>13</sup> neutrons per second from external target
- 21 stripping foils at each stripping port for 2-minute rapid change







#### **Best**<sup>™</sup> **15-25p MeV Cyclotron**

- 400 μA extracted beam current
- The cyclotron is supplied with two <sup>18</sup>F production targets complete with loading and routing to the production hot cell.
- Targets for <sup>18</sup>F, <sup>11</sup>C, <sup>13</sup>N, <sup>15</sup>O, <sup>64</sup>Cu, <sup>124</sup>I, <sup>103</sup>Pd and <sup>99m</sup>Tc are available.
- High current solid target stations (10 kW) and high current gas target stations (4 kW) are available upon request.





#### Best<sup>™</sup> Model B35adp Alpha/ Deuteron/Proton Cyclotron for Medical Radioisotope Production & Other Applications

- **Proton Particle Beam:** 1000 μA Beam Current up to 35 MeV Energy
- **Deuteron Particle Beam:** 500 μA Beam Current up to 15 MeV Energy
- Alpha Particle Beam: 200 μA Beam Current up to 35 MeV Energy



#### Best<sup>™</sup> 70 MeV Cyclotron Ideal for Sr-82/Rb-82 Supply and Research

- 70-35 MeV variable energy H- cyclotron
- 700 μA extracted beam current (upgradable to 1000 μA)
- 2 simultaneous extracted beams
- Multiple independent beam lines and target positions





#### **Installation of 70 MeV Cyclotron**

May 2015 - Legnaro, Padova, Italy



#### **Installation of 70 MeV Cyclotron**

May 2015 - Legnaro, Padova, Italy



#### **Inauguration of 70 MeV Cyclotron at INFN**

December 2016 - Legnaro, Padova, Italy

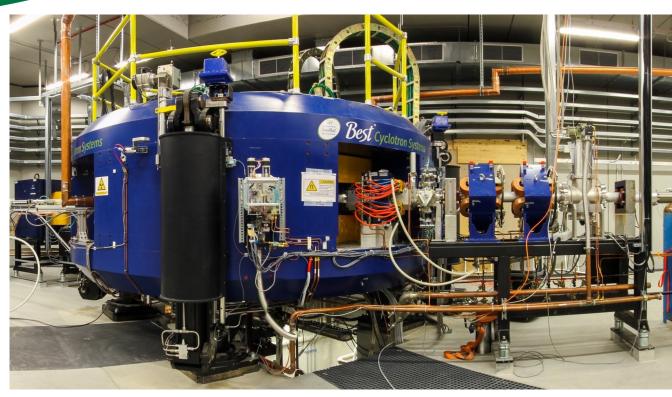


#### Front Page News in Padova, Italy



#### Best<sup>™</sup> 70 MeV Cyclotron at INFN





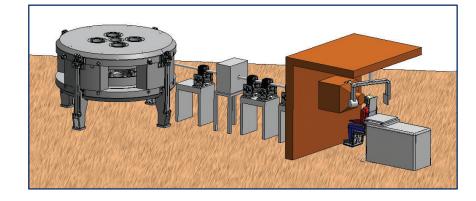
### Best Particle Therapy





#### Best<sup>™</sup> Model 200p Variable Energy Cyclotron for Proton Therapy

(Patent Pending)



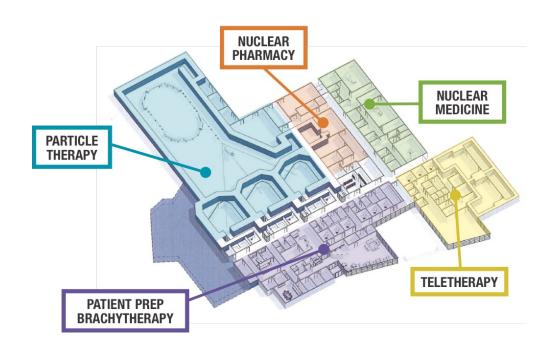
- From 70 MeV up to 200 MeV Variable Energy
- Dedicated for Proton Therapy with two beam lines and two treatment rooms
- For all Medical Treatments including: Benign and Malignant Tumors, Neurological, Eye, Head/Neck, Pediatric, Lung Cancers, Vascular/Cardiac/Stenosis/Ablation, etc.





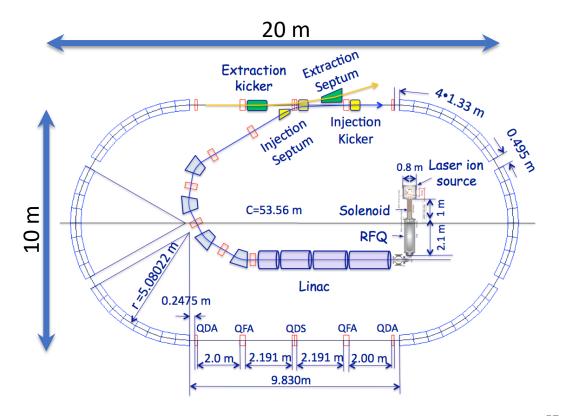


**Best Particle Therapy** 200-400 MeV ion Rapid **Cycling Medical** Synchrotron (iRCMS) for Proton-to-Carbon, **Variable Energy Heavy Ion Therapy** 



Single and Multi-Room Solutions

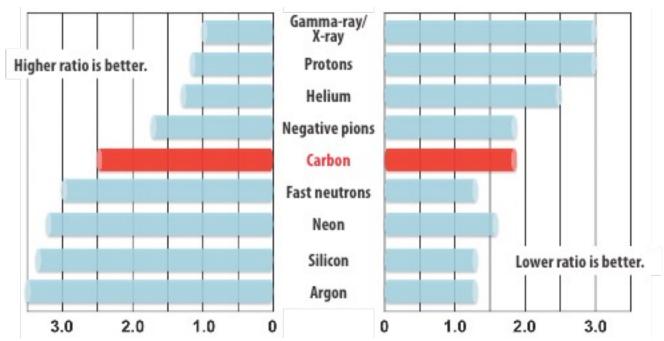
# BEST/BNL iRCMS Much Smaller Footprint







### RBE: Relative Biological Effectiveness OER: Oxygen Enhancement Ratio

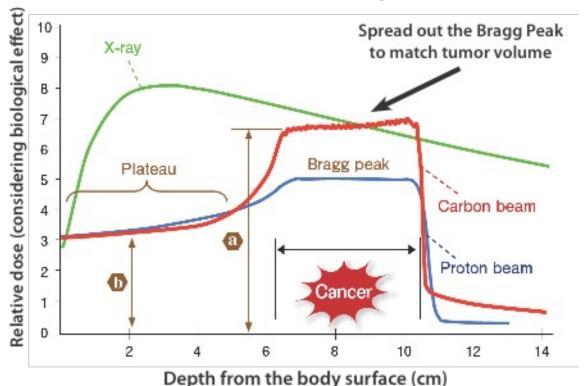


RBE represents the biological effectiveness of radiation in the living body. The larger the RBE, the greater the therapeutic effect on the cancer lesion.

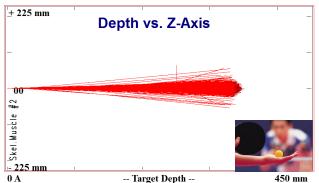
OER represents the degree of sensitivity of hypoxic cancer cells to radiation. The smaller the OER, the more effective the therapy for intractable cancer cells with low oxygen concentration.

#### Clinical Comparison: X-rays vs. Protons vs. Carbon lons

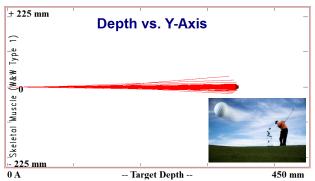
Peak-to-Plateau ratio of the RBE (a/b) is larger in carbon ion beams than for proton beams.



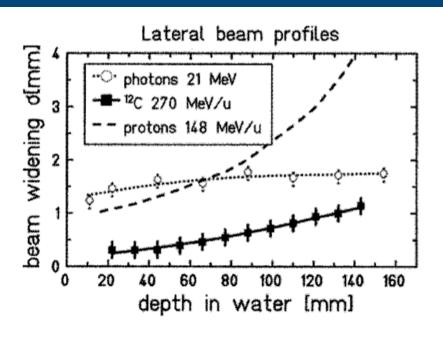
#### Carbon lons are more precise than Protons



The intrinsic spot width for ~206 MeV/u protons is  $2\sigma = 11.4 \text{ mm}$ 



The intrinsic spot width for ~400 MeV/u carbon ions is  $2\sigma = 2.93$  mm



"Lines to guide the eye"
U. Weber GSI (1996)

### Cost of facilities construction and operation

#### Radiobiological considerations

- Hypoxia
- α/β ratio
- Metabolism
- Micro-environment
- Cancer stem cells

#### Therapeutic gain for specific histologies

- Local control and survival
- Historical responsiveness to current radiotherapy

### Superior dose depth distribution

#### Considerations for implementing new carbon ion therapy facilities

#### Physical beam characteristics

- Higher LET
- Superior RBE
- Lower OER
- Narrow penumbra

#### Relationship to critical structures

- Dose limitations
- Toxicity

Dosage and treatment planning

**Patient convenience** 

### Medical Advantage

- Deliver 20 times the cancer killing power of protons
- Cure the patient 4 to 10 times faster

### Benefit to Patient

- Shorter treatment times potentially 4 to 10 times less
- Less stress for the patient physically, emotionally & financially
- Less unnecessary radiation exposure

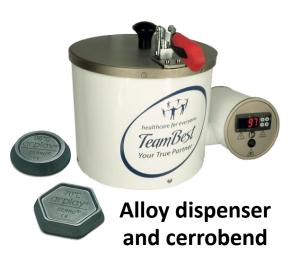
### Benefit to Society

 A Heavy Ion Center will provide maximum advantage to the general public by having the capability to treat many more patients than a Proton Center with the same number of treatment rooms

## Best Mold room supplies













Brachytherapy emergency container

## Best QA/QC applications





#### **MOSFET Systems**





Photos clockwise from top: actual (small) size of the microMOSFET; the Linear 5ive Array for use in brachytherapy; and a high-sensitivity MOSFET being used to measure scatter dose to the thyroid.



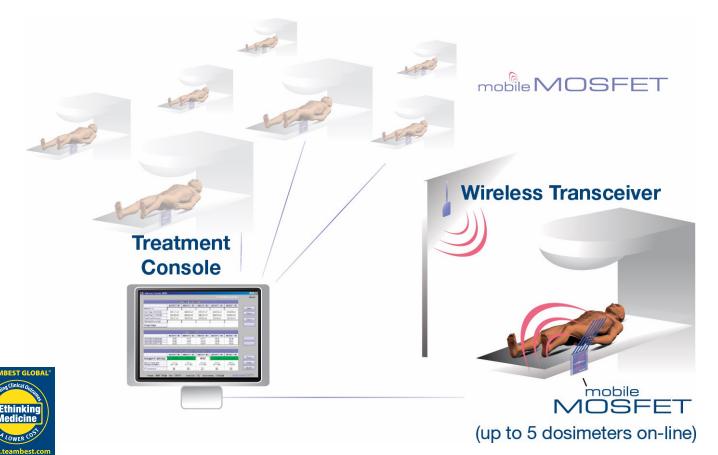








#### **MOSFET System Configuration**



www.teambest.com

#### **Electrometer**

### Radiation Dosimetry and QA













#### **Extension Cables**

# **GP-3000 Gamma**probe breast **localization system**







### Water Phantoms and Ion Chambers









## Fixed Red or Green Diode Lasers







#### **CVO-2000 Warming Oven for Thermoplastics**



#### Huestis · Cascade Simulator







## Affordable solutions for your radiotherapy and industrial needs



X-ray Collimators





Compu-cutter III



Custom Machines & Equipment from Huestis Industrial



# Model SF 319-3

300 Sprokensor O 11

#### Styro•former®

#### The Original Radiotherapy Shielding Block Mold Cutter

- Accurate Cutting with manual tracing produces smooth, accurate cuts with minimal training.
- Rigid Box Frame ensuring that cutting wire is precisely aligned between the source point and block tray.
- Quick, Smooth Operation with springloaded, Teflon tracing stylus moving freely in X and Y axes.



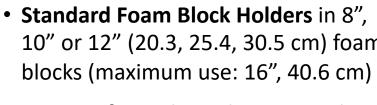


#### Styro•former®

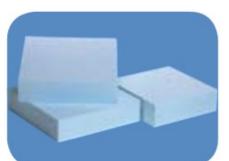
- 10" or 12" (20.3, 25.4, 30.5 cm) foam blocks (maximum use: 16", 40.6 cm)
- Power Lift LT where drive controls are panel mounted for quick, push-button height adjustments.
- Auto Boost Options to automatically boost wire temperature to adjust for wire deflection.















#### **Mobile Digital X-Ray Systems**

#### **MX 50**

- Advanced Technology with Superior Design
- Higher Power Exposure
- Compact Body and better usability







## **KITSAULT ENERGY:** *Where We Stand Today*

KRISHNAN SUTHANTHIRAN, FOUNDER & PRESIDENT OF KITSAULT ENERGY









Kitsault Energy will utilize its dedicated export port and terminal at Observatory Inlet to facilitate the transport of Canadian energy to Asian markets. This strategically located infrastructure is designed to unlock new international trade opportunities, generating billions of dollars in tax revenue for Alberta, British Columbia and the federal government. In addition to creating thousands of high-paying jobs, the project is expected to significantly enhance the competitiveness of Canadian energy producers. By reducing shipping distances and associated costs, the project will help minimize the discount on Canadian energy exports, thereby boosting revenues and enabling long-term growth and innovation across the industry.





#### **CALL TO ACTION!**

**Kitsault Energy** is open to partnerships with engineering firms, energy producers, governments, and communities to realize this shared vision.





#### **QUICK FACTS**

- KE features a deep-water port at Observatory Inlet, BC—an optimal location for floating LNG, bitumen and methanol facilities.
- The site offers the shortest transportation route to northeastern BC's natural gas fields and northwestern Alberta's oil and gas reserves, resulting in projected cost savings exceeding \$3 billion.
- Located in Canada's Pacific Northwest, Kitsault serves as a strategic gateway to Asia, aligning with over \$60 billion in planned energy projects across the region.





#### **QUICK FACTS** continued

- The Kitsault townsite is easily accessible by road, water, air and floatplane.
- The Kitsault Energy Training and Employment Network will deliver targeted, practical skills training to support workforce development.
- KE places strong emphasis on Indigenous engagement and consultation, and prioritizes economic empowerment for First Nations through employment, education, healthcare, housing, and business development opportunities.
- The National Energy Board has previously granted KE a 20-year LNG export permit for up to 20 million tonnes per year, recognizing the project's strategic importance to Canada's energy sector.







#### WWW.KITSAULTENERGY.COM





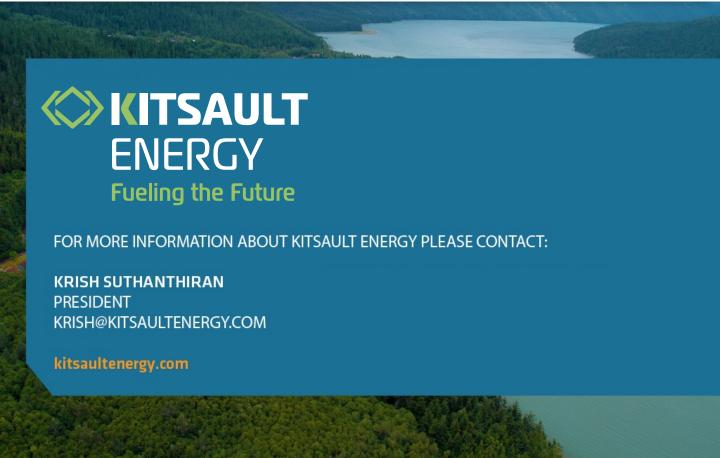






#### WWW.KITSAULTENERGY.COM











**Best Cure Foundation, Inc.** was founded in the Commonwealth of Virginia, USA, in 2007 as a 501(c)(3) nonprofit organization dedicated to promoting healthcare and education worldwide. The foundation aims to collaborate with citizens, medical professionals, government and non-government organizations, educational institutions, and charitable groups around the globe to eliminate contagious diseases, malnutrition, and poverty, while providing high-quality healthcare at affordable costs. Everyone deserves access to the best healthcare. Education is the most effective way to eradicate poverty and foster global understanding and peace.

Please visit the TeamBest Global website at <a href="www.teambest.com">www.teambest.com</a>
to review this presentation.

### Thank You!



































