



OEL(HOLDINGS)LIMITED

FAIRNESS | TRANSPARENCY | PROFESSIONAL | INTEGRITY

WE ARE COMMITTED TO OUR GOAL OF BUILDING A PAN-ASIAN HIGH-TECH HEALTHCARE COMPANY
AS ITS CORE

PHILLIP SECURITIES
GUEST PRESENTATION
29 OCTOBER 2020

01

INTRODUCTION TO OEL

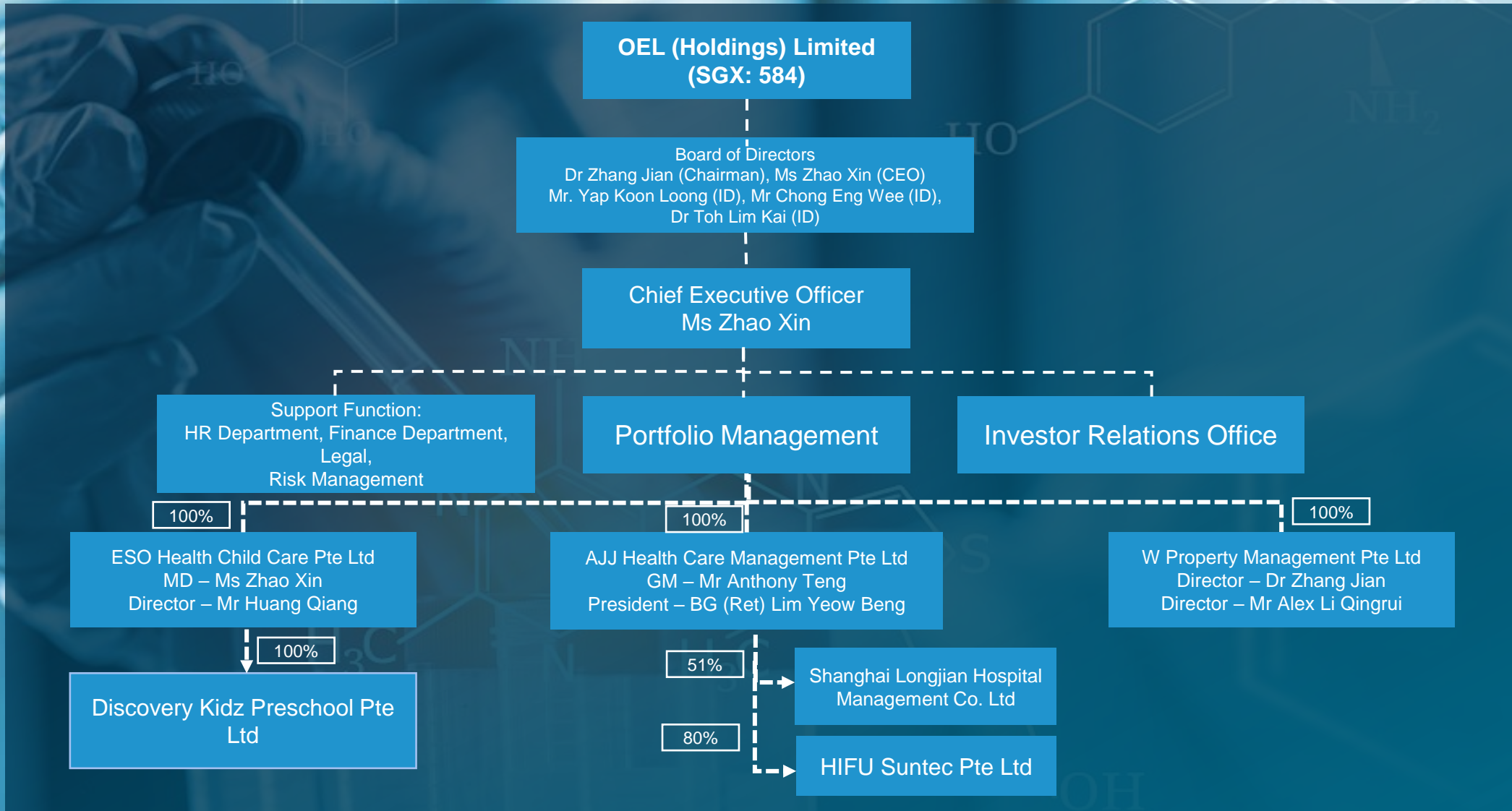


OEL(HOLDINGS)LIMITED

- OEL (Holdings) Limited (“OEL”) was established in 1984 and listed on Singapore Exchange in 1994
- On 16th December 2019, Dr. Zhang Jian, Chairman and Executive Director emerged as the new substantial shareholder of OEL with 20.7% while Alice Zhao Xin, CEO and Executive Director held 2.06%
- Following the changes in shareholdings, OEL has diversified its existing business of Property to include:
 - Healthcare equipment and services
 - Child Care Wellness Education



ORGANIZATIONAL STRUCTURE



BOARD OF DIRECTORS



Dr. Zhang Jian
Chairman and Executive Director

Over 30 years of extensive corporate management experience and senior leadership positions. Covering various verticals and across entire industry value chain of investment banking, real estate, internet plus, life sciences and etc. 20 years of experience overseas, and 8 years in China



Ms. Alice Zhao Xin
CEO and Executive Director

Ms. Zhao holds a Master of Social Sciences (China and Global Governance) from Nanyang Technological University, a Master of Science in Professional Accountancy from University of London. Based on her prior experience in the financial investment space, Ms. Zhao professes valuable insight on financial, healthcare, medical, childcare, commodities and tourism industries



Mr. Chong Eng Wee
Independent Director of OEL

Mr. Chong is Partner and Head of the corporate team at Kennedys Legal Solutions with deep expertise spanning corporate and securities laws, capital markets, M&As, private equity, China, banking and finance, corporate restructuring, joint ventures, corporate and commercial contracts, regulatory compliance, corporate governance advisory and corporate secretarial work.



Mr. Yap Koon Loong
Independent Director of OEL

Mr. Yap has more than 15 years of experience in accounting, financial and corporate matters and has held senior financial positions in listed companies. Mr. Yap is an associate member of Australian Society of Certified Practising Accountants (ASCPA)



Dr. Toh Lim Kai
Independent Director of OEL

Dr. Toh Lim Kai has been a Resident Physician at T Clinic since 2018. Prior to this, he was the Regional Medical Director to various healthcare such as VIIB Healthcare for HIV Medicine, GE Healthcare for Pharmaceutical / Diagnostic Imaging, and AbbVie/Abbott for Virology / Neonatology
Dr. Toh is a HomeTeam NS Audit Committee Member and also a Committee Member at REAL Run.

Our Team



Mr. Anthony Teng
General Manager of AJJ Health Management Pte Ltd.

Mr. Teng has more than 20 years experience in pharmaceutical business development and management within Southeast Asia region. He also has a wealth of experience in healthcare marketing, business development, healthcare-related financing and management.



Mr. Huang Qiang
Division Head of ESO Childcare Wellness Pte. Ltd.

Mr. Huang has more than 17 years of experience in private education, academic and corporate matters and has held senior academic and operation positions in UK listed education company. He was Vice-Principal cum Academic Director of Huanda Nanyang College before he joined OEL (Holdings) Limited.



Mr. Alex Ong
Financial Controller

Mr. Ong has more than 25 years of experience in finance, accounting and corporate matters. He is a member of the Institute of Singapore Chartered Accountants ("ISCA") and a Fellow member of The Association of Chartered Certified Accountant, UK ("FCCA"). He was the Chief Financial Officer of Sitra Holdings (International) Limited before he joined OEL (Holdings) Limited.



Prof. Liu Yunhua
Business Consultant of AJJ Health Care Management Pte. Ltd.

Professor Liu is the director for Centre of Urban and Regional Development at Renmin University of China. He has over 23 years of experience on research, teaching and consulting on industrial, urban development and business investment. Professor Liu works in areas of urban economy, industrial planning, employment promotion, land use policy, housing policy, transport management etc., His competency is not only in theoretical teaching and research, but also in business operation.

Specialist Support (Consultant)



Mr. Lim Yeow Beng
President of AJJ Health Care Management Pte. Ltd.

Mr. Lim has more than 30 years of experience in the logistics, engineering and healthcare industry. He served in various leadership roles in the ST Logistics Group of Companies the Singapore Mainboard Listed Sembcorp Logistics as well as directorships of more than 25 companies spanning North America, Europe, Middle East, South Asia, China and other Asia Pacific countries. Mr. Lim joined SembCorp Logistics Group (now the Toll Global Logistics) to execute the strategic projects in Asia Pacific. He was appointed President and CEO of ST Logistics group of companies and Director of Government Business Group.

Prior to joining the private sector, Brigadier General (Retired) Lim held various command and staff appointments with Singapore Armed forces. He was the Head of Air Engineering and Logistics for the Republic of Singapore Air Force (RSAF). BG (Ret) Lim was instrumental in shaping the outsourcing strategies of RSAF. He was awarded Distinguished Graduate of the US Air Force Command and Staff College and Public Administration Medal (Silver) (Military) in 1999 by the Republic of Singapore.

Substantial Development and achievement



Childcare Wellness Education Introduction

Childcare Wellness Education

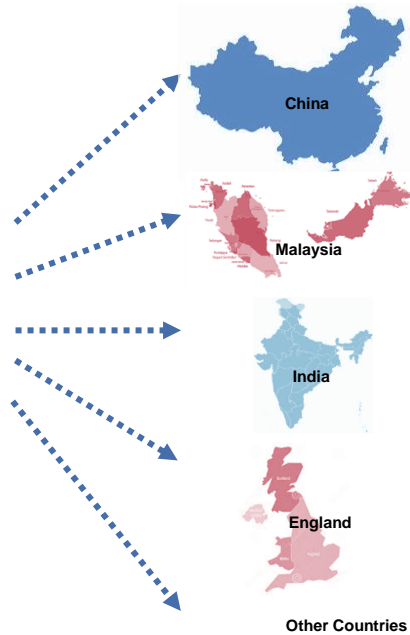


Logo
(Applying for trademark registration)

Discovery Kidz preschool license
ECDA License Code: 17499



All for Children



Expand the childcare Wellness education business in Singapore and to duplicate existing educational model at new preschools acquired

Aims to venture overseas by creating Singapore-owned intellectual property and brand

Branching out to other childcare education-related areas


*Estimated 18% of Singapore's youth suffer from depression; we seek to provide a solution.
*ESO Childcare develops a child's social and emotional development in cultivating optimistic and cheerful personality.

Physical Health



Ms. Yang Meifang [Australia]
Double Master in Food Science / Food Nutrition
Helps with designing the food menu for the preschool(s) with nutrition in mind - collaborative agreements

Psychology Health



Dr. Susanne A Denham [USA]
Emeritus Faculty (George Mason University)
Applied Developmental Psychology: Social and emotional development of children
Advisor of the Textbook Editorial Committee and provide professional advice for teachers - collaborative agreements

Behavior Health



Dr. Lynn Wiener [USA]
Yale University
Director of the department of early childhood education at Yale New Haven Hospital
share with the Group monitoring tools that help evaluate a child's social emotional skills - collaborative agreements

Plan And Growth Strategy in Medical Equipment & Healthcare Services

AJJ Healthcare Management
(wholly-owned subsidiary)

Shanghai Longjian Hospital
Management
(51% subsidiary of AJJ)

HIFU Suntec
(80%-owned JV)

SPV 1,2,3...

High-Tech
medical
equipment
and medical
products
(Aim to
Cooperation
with ESG)



Singapore as HIFU Hub

- Centre of Excellence
- Medical & Technical training
- Service and maintenance
- Global HIFU conferences
- R&D Centre



JV with Reputable Manufacturers



Patent and Licensing

- HSA License Application
- Product Registration
- Special authorization routes GN26&GN27
- Patent Application
- CE Application



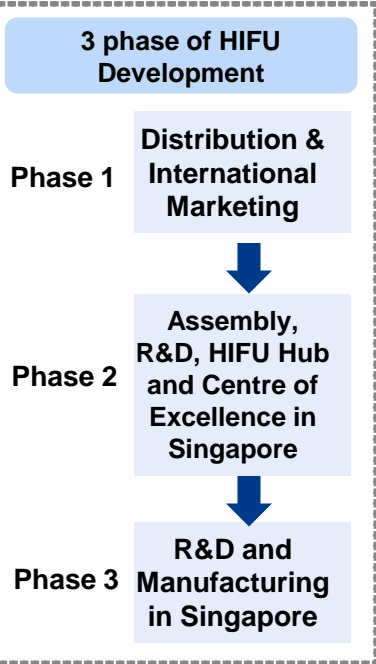
Supply Advanced Medical Equipment and Technical Skills

High Quality Medical Product
CE/FDA certified medical products to the global markets

Specialized Treatment Services

Provide hospital management services

Nursing Home



Medical Team of Shanghai Longjian

Overview

Shanghai Longjian Hospital Management Co. Ltd was founded in 2019, expert in the management of medical investment, consultation and health management services

Institution Cooperation

A talented group composed of doctors and experts, has stable relationship with the Second Military Medical University, Chinese Non-government Medical Institutions Association, Shanghai Medical College of Fudan University, Shanghai Jiao Tong University School of Medicine, etc., which forms a strong alliance to conduct talent training, introduction and chronic disease management.

A professional corporation with advanced team, great cooperation relationship with a number of universities, hospitals and related institutions and associations.



Dr. Ye Wenzheng (Legal Representative)

Dr Ye Wenzheng (“Dr Ye”) is the founder and legal representative of Shanghai Longjian. He was previously the vice president, professor and chief physician of the hematology department in the Second Military Medical University. He is also a senior researcher in Shanghai Academy of Economic Sciences and deputy director in Shanghai Medical Research Center. He is one of the top authorities in China’s hematology department, who is acclaimed to have three discoveries in the field of medicine:

1. The first case of allogeneic fetal liver transplantation for a leukemia patient in China;
2. The first report on diagnosis of light chain disease in China; and
3. The first discovery of hereditary Pelger-hurt’s leukopenia in China.



Dr. Tang Guomin

Dr Tang Guomin (“Dr Tang”), who is a professor of orthopaedics, chief physician and postgraduate supervisor. Dr Tang has been engaged in the diagnosis and treatment of orthopaedic diseases especially in the diagnosis and treatment of spine surgery, joint diseases and bone trauma. In addition, Dr Tang is experienced in discipline construction, medical safety control, hospital culture cultivation and hospital all-round operation and management, and has many successful experiences in running a hospital with social capital. Dr Tang is also a shareholder of Shanghai Longjian.

Dr. Jiang Wei

Dr Jiang Wei (“Dr Jiang”) is a postdoctoral, former senior researcher of Texas Medical Centre and a visiting professor of Shanghai Jiaotong University. He graduated from the Department of military medicine of the Second Military Medical University in 1984. In 1986, Dr Jiang served as chief resident under the guidance of Academician Li Leishi of the Institute of Nephrology of Nanjing Military General Hospital. In 1993, he studied in Baylor Medical College of Texas Medical Centre under Wide N.Suki, who is the president of American Nephrology Association. He has successively worked in many hospitals and research institutes such as Methodist Hospital Internal Medicine, Texas Children’s Hospital, M.D. Edson Tumor Centre, DAVITA Chain Dialysis Centre, working on clinical, basic research and management. Dr Jiang has a deep knowledge in the pathogenesis, early prevention and treatment of kidney diseases such as lupus nephritis, diabetic nephropathy, IgA nephropathy, renal failure with multiple organ failure, clinical and basic research of blood purification technology, early diagnosis and treatment research of kidney disease individualization. Some articles were published in the PNAS, Cancer Research, Circulation, Journal of the American Society of Nephology.

HIFU – TUMOUR & CANCER TREATMENT

The number of cancer patients have been and will continue to increase. This calls for a national medical treatment that is more effective (shorter treatment time, less invasive) and better quality (less complications and faster recovery)

Almost 10 Million people die from cancer annually

Cancer is one of the world's largest health problems. The *Global Burden of Disease* estimates that 9.56 million people died prematurely as a result of cancer in 2017. **Every sixth death** in the world is due to cancer.²

The *Global Burden of Disease* is a major global study on the causes and risk factors for death and disease published in the medical journal *The Lancet*.³

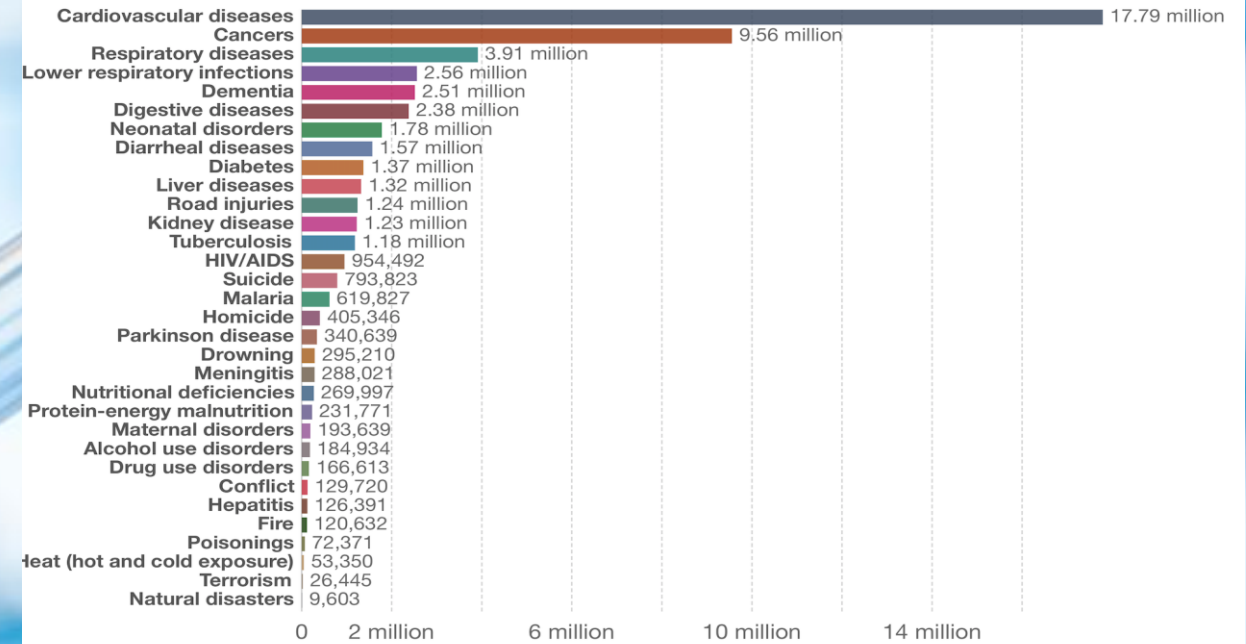
Cancer is a particularly common cause of death in richer countries where people are less likely do die of infectious diseases and causes of deaths that lead to very early deaths for people in poverty.

The chart is shown for the global total, but can be explored for any country or region using the “change country” toggle. Switching to one of the richer countries shows that the share of deaths attributed to cancer is higher.

Because cancer is one of the leading causes of death, it is one of the world's most pressing problems to make progress against this disease.

Number of deaths by cause, World, 2017

Our World in Data



Source: IHME, Global Burden of Disease

OurWorldInData.org/causes-of-death • CC BY

Source: <https://ourworldindata.org/cancer#cancer-is-one-of-the-leading-causes-of-death>

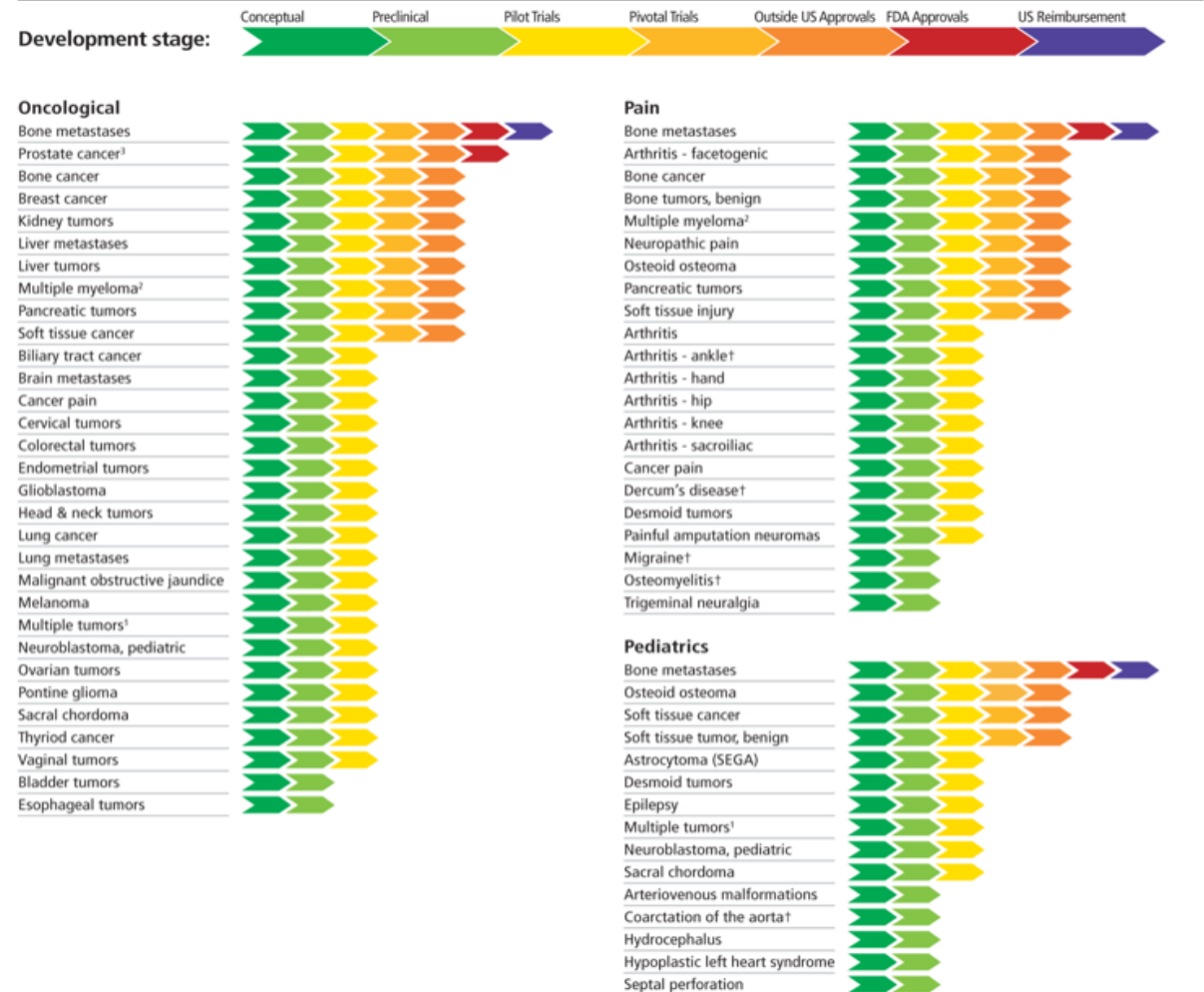
HIFU technology is under different stage of research, including the USA

State of the Technology in US

- Focused ultrasound is currently in the early stages of development and adoption in the US, it has the potential to transform the treatment of a variety of serious medical conditions.
- All indicators point toward the evolution of this platform technology into a robust medical field, with the pace of research and development, publications, patient treatments and the number of device manufacturers all increasing rapidly in the past few years.

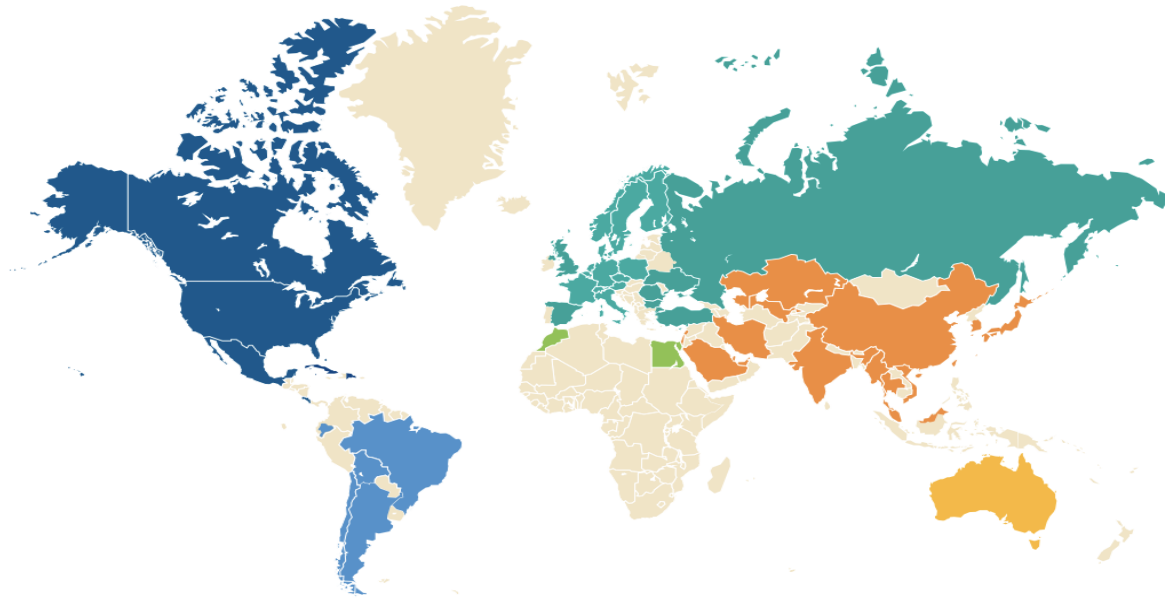
Source: http://www.fusfoundation.org/images/pdf/FUSF_State_of_the_Field_Report_2019.pdf

State of Research and Regulatory Approvals by Indication continued



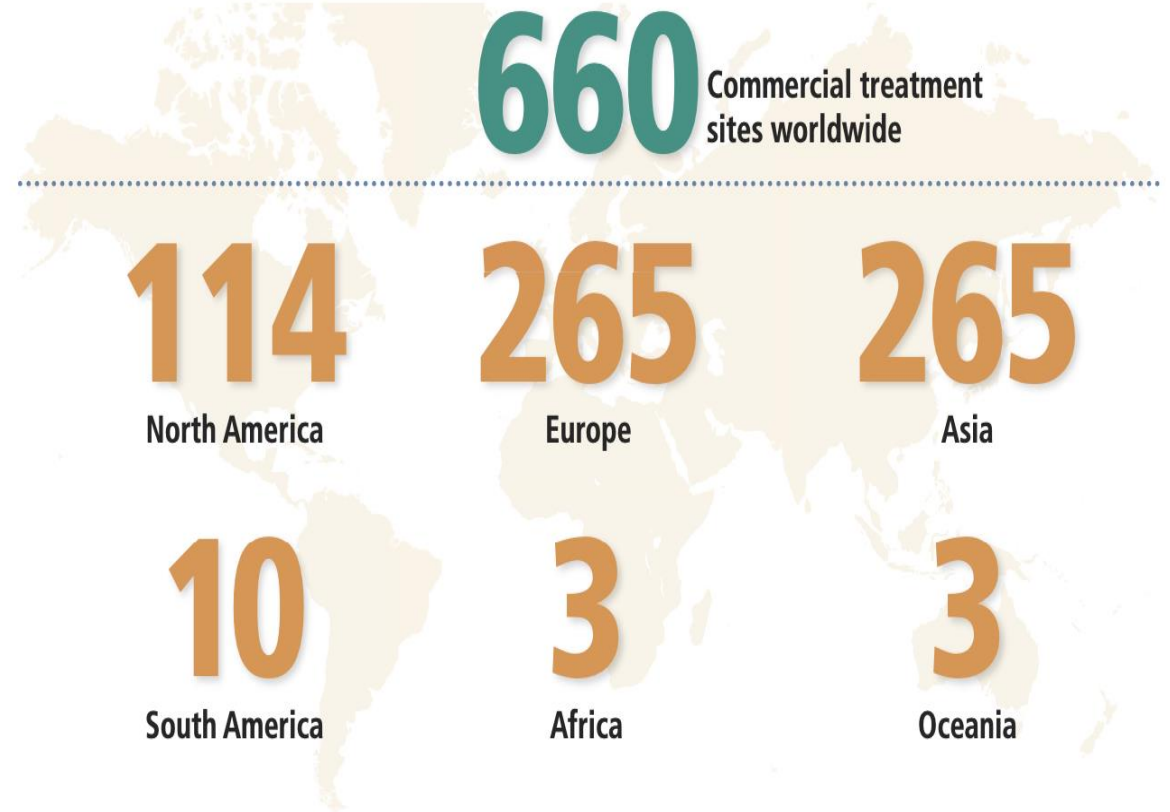
HIFU technology commercial treatment in the world

34 indications are being treated commercially at sites worldwide



<p>North America</p> <ul style="list-style-type: none"> 1 Bahamas 8 Canada 1 Cayman Islands 1 Costa Rica 1 Denmark 1 Cuba 2 Dominican Republic 9 Mexico 91 United States <p>South America</p> <ul style="list-style-type: none"> 1 Argentina 1 Bolivia 4 Brazil 1 Chile 3 Ecuador 	<p>Europe</p> <ul style="list-style-type: none"> 4 Austria 2 Belgium 2 Bulgaria 1 Denmark 1 Finland 73 France 57 Germany 42 Italy 1 Monaco 2 The Netherlands 2 Norway 4 Poland 2 Romania 	<ul style="list-style-type: none"> 29 Russia Federation 11 Spain 2 Sweden 13 Switzerland 1 Turkey 1 Ukraine 15 United Kingdom 	<p>Asia</p> <ul style="list-style-type: none"> 153 China 8 India 1 Iran 4 Israel 40 Japan 1 Kazakhstan 1 Lebanon 1 Malaysia 1 Myanmar 2 Qatar 23 South Korea 2 Saudi Arabia 1 Singapore 21 Taiwan 2 Thailand 	<p>Oceania</p> <ul style="list-style-type: none"> 3 Australia <p>Africa</p> <ul style="list-style-type: none"> 2 Egypt 1 Morocco 	<ul style="list-style-type: none"> 1 United Arab Emirates 1 Uzbekistan 2 Vietnam
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Commercial Treatment Sites by Region*

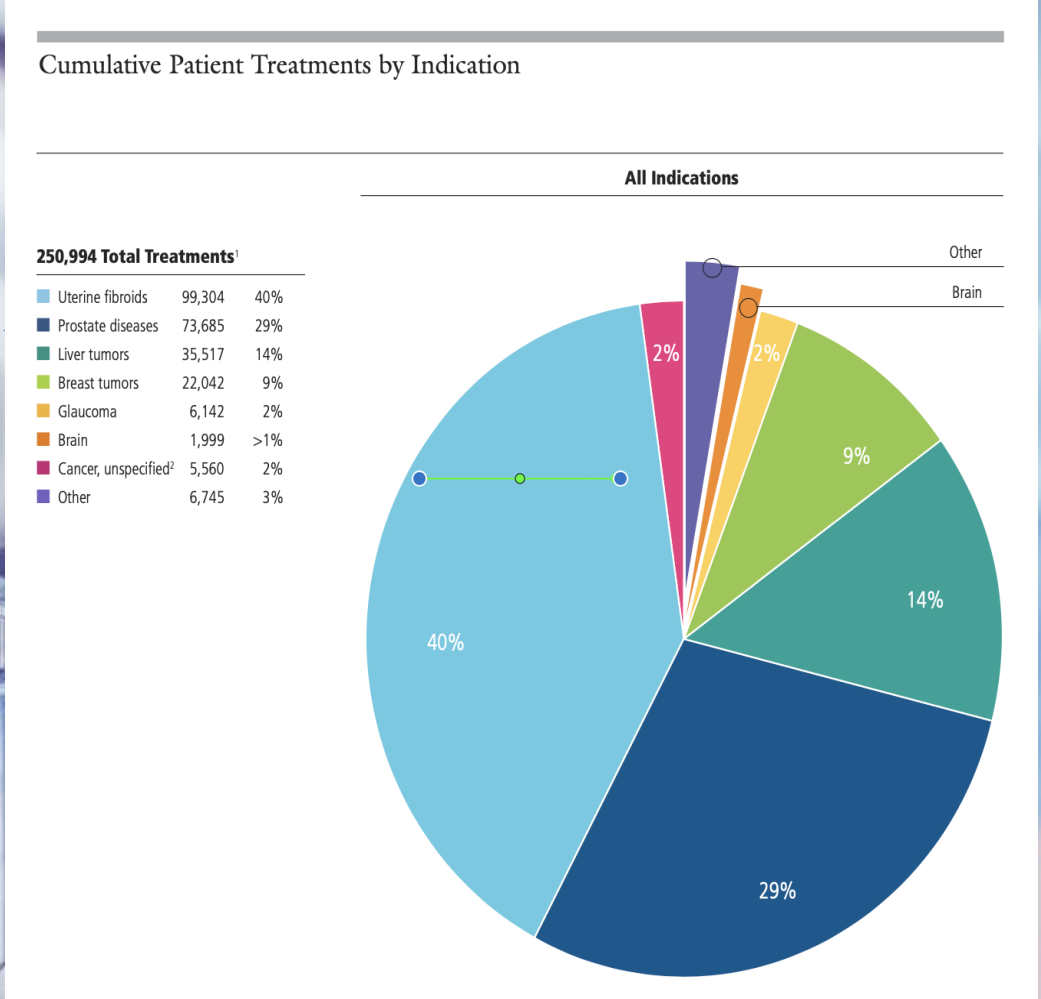


*Commercial treatment sites provide focused ultrasound treatment with a regulatory-approved device.

Source: http://www.fusfoundation.org/images/pdf/FUSF_State_of_the_Field_Report_2019.pdf

HIFU – GLOBALLY PROVEN TECHNOLOGY

Prostate	<p>Global examples (non-exhaustive)</p> <ul style="list-style-type: none"> ▪ HIFU clinic, Poland ▪ SonaCare, US ▪ Fuerth Hospital, Germany ▪ HAS approval, France
Gynecology	<ul style="list-style-type: none"> ▪ Farrer Park hospital, Singapore ▪ Pre-market approval by FDA, US ▪ Hospices Civils de Lyon, France
Aesthetic	<ul style="list-style-type: none"> ▪ SL Aesthetic clinic, Singapore ▪ Mizu Aesthetic, Singapore ▪ New York Lazer Clinic, NYC and Londong



Source: <https://hifuclinic.eu/about-us/>; <https://sonacaremedical.com/>; <https://www.globenewswire.com/news-release/2014/05/06/633437/10080116/en/EDAP-Announces-First-Focal-One-R-HIFU-Treatments-Performed-in-Germany.html>; https://www.has-sante.fr/upload/docs/application/pdf/2011-12/abstract_hifu.pdf; https://slclinic.com.sg/hifu/?keyword_k=hifu&clid=CjwKCAjw4871BRAjEiwAbxXi27NctYzI4A7aUBAMw740gAVZo26UtCu2yDcwLkZBqI2gTankhOIMehoCnbEQAvD_BwE; <https://www.thenewyorklaserclinic.co.uk/clatuu-and-hifu/ultraformer-hifu-london/>
 Source: http://www.fusfoundation.org/images/pdf/FUSF_State_of_the_Field_Report_2019.pdf

HIFU is a revolutionary non-invasive treatment that uses focused ultrasound to treat tumors and certain cancers. This novel technology focuses beams of ultrasound precisely on targets without damaging surrounding normal tissue.

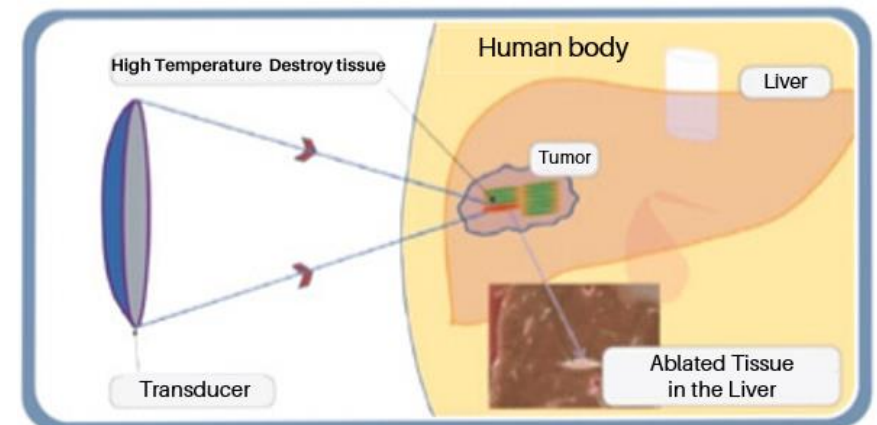
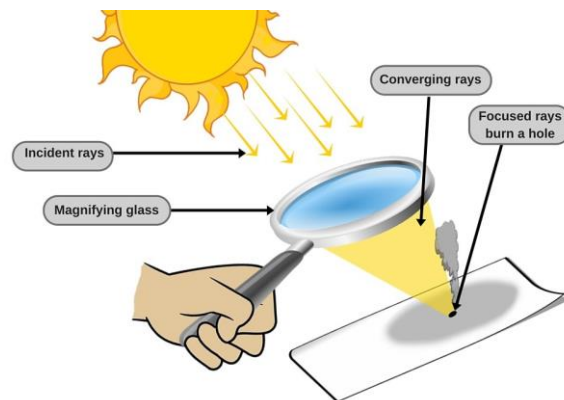
(Similar to using a magnifying glass to focus sunlight.)

Where the beams converge, the ultrasound produces precise ablation (thermal destruction of tissue) enabling tumours to be treated without surgery.

HIFU – HIGH INTENSITY FOCUSED ULTRASOUND

HIFU treatment is done as a day procedure with minimal effect to the patients and little downtime after the treatment. HIFU treatments can improve the quality of life and decrease the cost of care for cancer patients. Globally, there is an increased use of HIFU in treating liver cancer, pancreatic cancer, prostate cancer, breast cancer, uterine fibroids etc. Major countries that are using HIFU are US, China, France, Germany, Korea, Singapore etc.

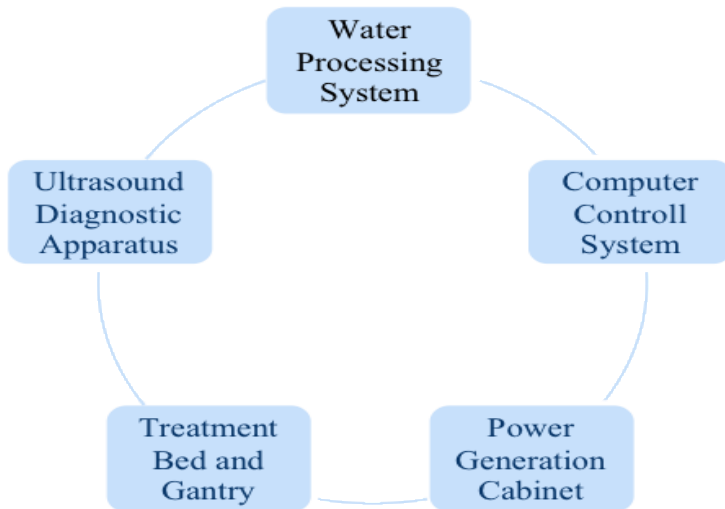
We have the leading HIFU technology that can treat tumours and cancers with high efficacy and safety profile.



Introduction to HIFU Tumor Ablation Machine

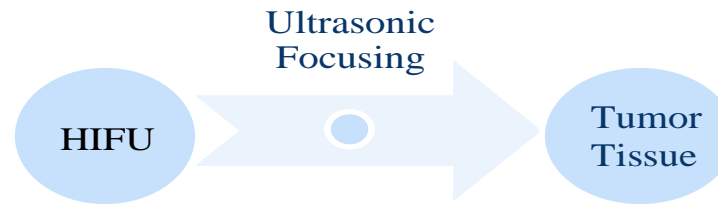
With the technological progress and medical development, precision therapy and comprehensive therapy have become strategic initiatives and directions in the field of tumor therapy. The application of HIFU tumor ablation machines for non-invasive treatment will become an important part of precision tumor therapy and comprehensive therapy.

Composition

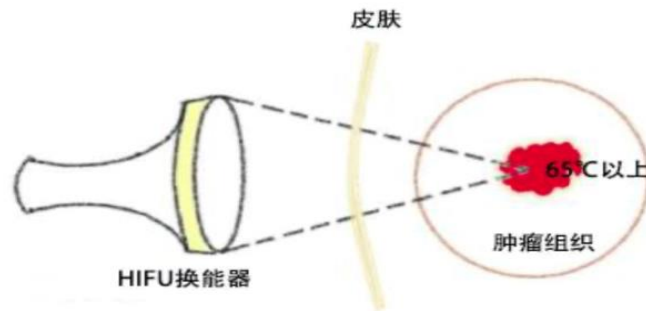


Control System □ Computer, system control software, remote control console;
 Positioning System: Digital B ultrasound, double C-arm gantry, and three-dimensional exercise therapy bed □
 Therapy System: Multi-element dual focus ultrasound transducers, power drive and vacuum water treatment system.

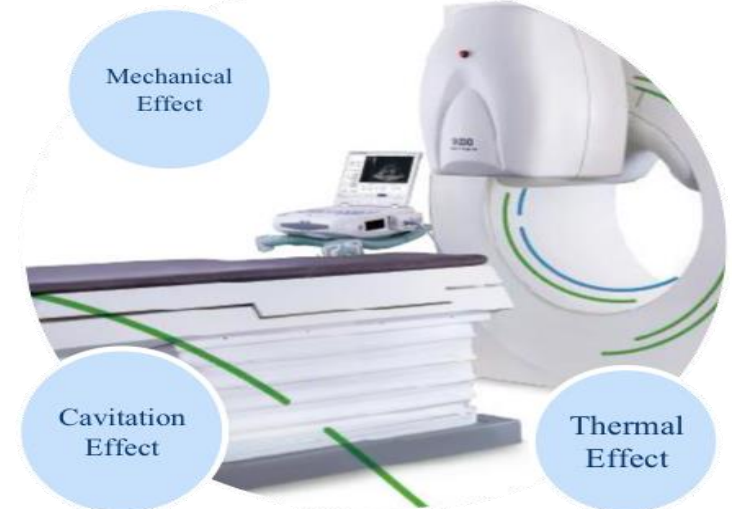
Principle



- Instant high temperature
- Burn according to the actual outline
- Real Time Monitoring



Effect



- Take the "nibbling way" that points are superimposed into lines, lines are arranged into planes, and planes are superimposed into forms.
- Can generate over 65°C at the target □ and cause coagulation necrosis.
- After about 40min, the treatment of tumor about 3cm can be completed.

HIFU – FEATURES & BENEFITS

HIFU technology can achieve truly non-invasive and guarantee the safety and efficacy of treatment to the greatest extent. This approach has evolved from the original treatment concept of surgical substitution to an important tool for partial ablation in comprehensive therapy

Effective

➤ Multi-element dual focus technology, ensure that the sound intensity at the focus meets the treatment requirements, and the area outside the focus belongs to the safe treatment range.

Safe

➤ The treatment does not require anesthesia, flexible power settings and pulsed strikes allow heat to be dissipated at the treatment site, and there is no damage to normal gastrointestinal organs, no serious complications and side effects

Precise

➤ The range of tumor ablation can be determined under the real-time precise positioning of b-ultrasound, and the treatment can also be adjusted according to the actual situation

Synergy

➤ Since HIFU treatment does not produce harmful substances, it will not affect other treatment methods and can improve the treatment effect together with other treatment methods

Comfortable

➤ First produce HIFU treatment equipment with overhead probes in China, patients can be placed in supine position (in prone position with underhead probes), and avoid directly contact of patient skin with water, which improve the comfortability of treatment.

Intelligent

➤ 3D reconstruction technology is adopted to make treatment heat more concentrated and save treatment time. It can also be assisted remotely

Clinical Application Condition

Uterine fibroids, Adenomyosis, soft connective tissue tumor, etc.

Primary carcinoma of the liver, metastatic hepatic carcinoma, pancreatic cancer, etc.

Tumors that cannot tolerate surgery because patients are old, weak or has many complications

Postoperative recurrence, metastasis, not suitable for reoperation tumors

In combination with other methods, palliative treatment for tumor patients is carried out

Considering the actual situation, surgery or medication is not acceptable

Advanced tumors that cannot be removed surgically

HIFU – PROVEN SAFETY & EFFICACY

- Safety of ultrasound-guided ultrasound ablation for uterine fibroids and adenomyosis: A review of 9988 cases
- Based on our observations from 9988 cases, ultrasound ablation treatment for uterine fibroid and adenomyosis is highly effective and safe. Adverse reactions to ultrasound ablation under conscious sedation are slight and temporary for both conditions. Hence, this clinically effective and safe treatment is an alternative treatment for women with uterine fibroids and adenomyosis.
- [Sources: https://pubmed.ncbi.nlm.nih.gov/26093678/](https://pubmed.ncbi.nlm.nih.gov/26093678/)
- High-intensity focused ultrasound: advances in technology and experimental trials support enhanced utility of focused ultrasound surgery in oncology
- Non-invasive techniques that utilise HIFU to ablate tumours will enable improvements in future healthcare provision as patient morbidity can be minimised while potentially saving costs. The limitations of HIFU that have delayed its potential use in clinical practice are being overcome through advances in technology and design, ongoing research is enabling improvements and reducing risk, and experimental clinical trials for various types of tumours are showing considerable promise: for some tumour types, e.g. prostate and pancreatic cancer, randomised controlled trials are now required to compare FUS with standard treatments. Clinical applications of FUS are thus continuing to expand and improve and we predict that its benefits along with its increasingly clinically relevant fast treatment times will rapidly result in its adoption as a routine part of multimodal therapy for many cancers.
- [Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3635791/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3635791/)

Tissue Ablation Technologies for Localized Prostate Cancer

MICHAEL D. GILLET, MD; MATTHEW T. GETTMAN, MD; HORST ZINCKE, MD, PhD; AND MICHAEL L. BLUTE, MD

Traditional treatments for men with localized prostate cancer have included both surgical removal and radiation therapy, with their potential adverse effects on patient quality of life. Thus, there has been increasing interest in the development of minimally invasive procedures that use various technologies to deliver lethal doses of heat or cold to the prostate in an attempt to kill cancer cells. At the same time, it is vital that these newer techniques ablate prostate tissue and spare vital periprostatic organs essential for maintaining function and quality of life. In this article, we evaluate the current status of tissue ablation modalities in the treatment of clinically localized prostate cancer, focusing on the different methods, early results, and possible future

radiation therapy. The indiscriminate application of tissue ablation technologies in the prostate is historically associated with inadequate tumor control, pronounced posttreatment complications, reinterventions, incontinence, impotence, and an overall poor quality of life.¹⁻¹⁰

Tissue ablation technologies currently under evaluation for treatment of prostate cancer include cryoablation, high-intensity focused ultrasound (HIFU), radiofrequency tumor ablation (RFTA), microwave thermal ablation (MTA),



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progesterone receptor (*PCR*) gene variants and haplotypes with recurrent pregnancy loss (RPL). This was based on the comparable incidence of smokers among RPL cases and control women ($P = 0.69$), and the low prevalence of smoking among Tunisian Arab women. The latter is due to socio-cultural reasons, and also to religious considerations. The same applies to alcohol, which is extremely rare among Tunisian

similar to ours, are hampered by the unique genetic background of study participants, as well as cultural and socio-economic backgrounds. This explains, in part, the varied association patterns of *PCR* genetic variants with RPL. We agree with Pandey et al. that a multi-centre collaborative study is warranted for assessment of the contribution of genetic variants in the progesterone receptor and progesterone

Re: Pregnancy outcomes in patients with uterine fibroids treated with ultrasound-guided high-intensity focused ultrasound

Is the noninvasive nature of HIFU ablation for uterine fibroids and adenomyosis setting patients up for future operative delivery?

DOI: 10.1111/1471-0528.14689
www.bjog.org

Gynaecological surgery

Evaluation of high-intensity focused ultrasound ablation for uterine fibroids: an IDEAL prospective exploration study

J Chen,^{a*} Y Li,^{b*} Z Wang,^{a*} P McCulloch,^{c*} L Hu,^a W Chen,^{d†} G Liu,^b J Li,^b J Lang,^{e†} Committee of the Clinical Trial of HIFU versus Surgical Treatment for Fibroids¹

^a College of Biomedical Engineering, Chongqing Medical University, Chongqing, China ^b The Chinese Evidence-based Medicine Center, West China Hospital, Sichuan University, Chengdu, China ^c Nuffield Department of Surgical Science, Oxford University, Oxford, UK ^d Clinical Center for Tumor Therapy, 2nd Affiliated Hospital of Chongqing Medical University, Chongqing, China ^e Department of Obstetrics and Gynecology, Peking Union Medical College, Beijing, China
Correspondence: Dr W Chen, Clinical Center for Tumor Therapy, 2nd Affiliated Hospital of Chongqing Medical University, Chongqing 400010, China. Email: chenws@cqmu.edu.cn

Dr J Lang, Department of Obstetrics and Gynecology, Peking Union Medical College Hospital, Peking Union Medical College & Chinese Academy of Medical Sciences, Beijing 100730, China. Email: langjh@hotmail.com

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case of subserosal fibroids, the serosa may rupture. This risk exists when the energy accumulated within the lesion is excessive, or the duration of treatment is prolonged, whether the focal point is in close proximity to the border of the endometrium or the serosa.

The worrying concern for uterine rupture stems from any breach of the endometrial cavity, which could predispose the woman to preterm labour, miscarriage and labour dysfunction. The variability in the strength and integrity of the myometrium raises significant uncertainty. By avoiding operative treatment of

Re: A comparison of the cost-utility of ultrasound-guided high-intensity focused ultrasound and hysterectomy for adenomyosis: a retrospective study

Is the cost-effectiveness of HIFU for adenomyosis and fibroids feasible?

Sir,

The widespread dissemination of high-intensity focused ultrasound (HIFU) ablation for fibroids and adenomyosis

Similarly in Taiwan, HIFU ablation is not covered by the National Health Insurance welfare. The elective cost of the HIFU treatment package ranges from US\$ 5500–7000, including pre- and post-treatment MRI.

In the USA, where magnetic resonance-guided HIFU (MRgHIFU) is more popular, Babashov et al.² reported that compared with hysterectomy, uterine artery embolisation has an incremental cost-effectiveness ratio (ICER) of US \$ 46,480 per quality-adjusted life-year gained, whereas MRgHIFU is cost-effective if the ICER is US\$ 39,250.

Comparison of high-intensity focused ultrasound ablation and secondary myomectomy for recurrent symptomatic uterine fibroids following myomectomy: a retrospective study

X Liu,^{a,b} J Tang,^a Y Luo,^a Y Wang,^a L Song,^c W Wang^a

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HIFU - 2001 leads in global HIFU technology – Multi-dimensional imaging and highly effective treatment

	Shanghai Suntec Co. (OEL's JV partner)	Competitor (China)	Competitor (France)
Ultrasonic emission mode	Pulse emission, high degree of safety, treatment without anesthesia	Continuous emission, rapid warming of the target area, high temperature, need anesthesia or tranquilizer with treatment , easy to cause damage in skin and ultrasonic channel	A probe with both treatment and imaging transducers. adjustment of energy delivered, 85C grade
Therapeutic efficiency	According to Gross tumour target volume ("GTTV") Can complete ablation of 7*7*12cu. mm. in 5 seconds and treat tumors separately (Max 45 mins)	According to GTTV, 150 minutes needed for treatment	NIL
Treatment Depth	0-144mm; Large treatment depth; Wide adaptation population	0-160mm Large treatment depth.	NIL
Target Area Size	7*7*12mm Short treatment time per cu. mm. High treatment efficiency	1.1*1.1*3.3 Long treatment time per cu. mm. Low patient tolerance Low treatment efficiency	Unitary lesion of 19 to 26 mm height per 1.7 mm width,
Overall operational evaluation	Wide range multi-angle motion system can effectively improve the preoperative positioning and intraoperative treatment efficiency , selection of multiple ultrasonic incidence channels and effective treatment depth are low.	Long preoperative preparation time and low treatment efficiency, Regular respiratory monitoring and complication prevention are required.	Precise destruction of the tissue, Precise robotic movements, Real-time tracking and adjustment of energy delivered.
Performance Evaluation	3-D image precision. Safety, effectiveness and monitoring are considered. No pain, no lesion, can treat not only the early stage of cancer, but the late stage for pain relieve too.	Poor safety, having possibility of complications during anesthesia	Preservation of surrounding tissue, different treatment strategies: Whole gland / Nerve sparing / Hemiblation

Summary: Shanghai Suntec Co. are the world's leading company that possesses technology in HIFU, treatment of larger area in shorter amount of time, little pain, no lesion, more image accuracy

HIFU Tumor Ablation Machine is widely adopted in China

China Partial Customer List

No.	Region	Hospital Name	Use department
1.	Shanghai	Huadong Hospital Affiliated to Fudan University	Minimally invasive tumor department
2.	Shanghai	Xinhua Hospital Affiliated to Shanghai Jiao Tong University School of Medicine	Oncology
3.	Xinjiang	Xinjiang Uygur Autonomous Region People's Hospital	Gynecology
4.	Henan	Henan Cancer Hospital	Hepatobiliary and Pancreas
5.	Beijing	Beijing Chinese Medicine Hospital Affiliated to Capital Medical University	Oncology
6.	Jiangsu	Nanjing First Hopital	Oncology
7.	Zhejiang	Haining Kanghua Hospital	Obstetrics&Gynecology

- Around 31 institutions in Shanghai are using HIFU machine
- Since HIFU entered the market in 1999, it has been highly recognized by experts and scholars at home and abroad and has been used in tertiary hospitals in China.
- HIFU has treated more than 20,000 cancer patients of which 16,000 cases are pancreatic cancer at Huadong Hospital Affiliated to Fudan University.

PLAN AND GROWTH STRATEGY – HIFU COMPARISON

Case Study Comparison: Uterine Fibroids

	HIFU Technology	Hysterectomy
Days of hospitalization	1 Night	2-3 nights
Cost to patients	SGD 20,000-30,000	SGD 20,000~30,000
Risk of complications	<ul style="list-style-type: none"> ▪ Skin burn in abdominal wall ▪ Numbness or pain in the lower limbs 	<ul style="list-style-type: none"> ▪ Blood clots ▪ Infection ▪ Damage to urinary tract, bladder, rectum or other pelvic structures during surgery ▪ Decreased libido and earlier onset of menopause even when ovaries not removed
Invasiveness	<ul style="list-style-type: none"> ▪ Focused high energy ultrasound waves to generate localized heat energy at temperature above 55 degree. C. to achieve cell death (coagulation necrosis) in uterine fibroids ▪ Non-invasive i.e. do not require surgical incision and organ sparing procedure with lower downtime ▪ No loss of blood and no need for blood transfusion 	<ul style="list-style-type: none"> ▪ Surgical procedure that removes partial or the entire uterus through laparoscopic or abdominal hysterectomy ▪ Hysterectomy may include removal of one or both ovaries and fallopian tubes

HIFU is a comparatively a better solution than Hysterectomy, provides a much better care to patients, and lesser risk for woman who wish to continue childbearing in the future

Majority of Insurance Companies in Singapore will cover the operational cost of the HIFU

PLAN AND GROWTH STRATEGY – HIFU GROWTH POTENTIAL

- The global high-intensity focused ultrasound (HIFU) therapy market was valued at US\$81 Mn in 2017, and is estimated to reach at \$398.72 Mn by 2025, registering a Compound Annual Growth Rate (CAGR) of 21.8% from 2018 to 2025. The global market for High intensity focused ultrasound (HIFU) is increasing rapidly primarily driven by the increase in cancer patient's population, growing demand for minimally invasive treatment procedures
- Asia Pacific is the fastest growing geographic market and is expected to be the significant revenue contributor in forecast period. As increasing cancers such as prostate cancer in Asia Pacific.



Source: <https://www.alliedmarketresearch.com/ultrasound-high-intensity-focused-ultrasound-hifu-therapy-market>

PLAN AND GROWTH STRATEGY – POTENTIAL HIFU MARKETS

In Asia-Pacific

No.	Region	Population('0000)	Public Hospitals	Private Hospitals
1.	Vietnam	9554	1161	185
2.	Indonesia	26770		2269
3.	Malaysia	3153	144	240
4.	Myanmar	5371	1056	
5.	Philippines	10670	476	960
6.	Thailand	6943	1002	316
7.	Cambodia	1625	186	1725 (town)
8.	Singapore	563	14	9

In U.S.

No.	Region	Population('0000)	Public Hospitals	Private Hospitals
1.	U.S.	3282	2904	1060

AJJ Health Care Management has strong connections in Cambodia, Vietnam, Thailand and India. AJJ Health Care Management will make a use of Singapore' s good business conditions and sets up the regional headquarter in Singapore.

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For Your Attention

Q&A

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