



# Focused Ultrasound A Global Perspective

Collaborative Network

## About the Focused Ultrasound Foundation

The Focused Ultrasound Foundation is a medical technology research, education and advocacy organization dedicated to improving the lives of millions of people with serious medical disorders by accelerating the development and adoption of focused ultrasound. The Foundation is unique in that it supports a platform technology that utilizes multiple mechanisms of action to treat a wide variety of diseases.

Positioned at the nexus of the large, diverse group of stakeholders comprising the ultrasound community, the Foundation functions as an independent, trusted and unbiased third party, aligning organizations into a cohesive ecosystem with a single goal: to make focused ultrasound technology available to patients in the shortest time possible. The Foundation works to establish a patient centric culture, instill a sense of urgency in all stakeholders, and alleviate barriers to progress.

The Foundation catalyzes collaboration and partnerships, organizes and funds research, spearheads advocacy and patient support initiatives, and organizes meetings, symposia and workshops to create and disseminate knowledge and increase awareness of focused ultrasound. Early-stage research funded by the Foundation “de-risks” subsequent investment, thus encouraging other funding sources such as disease-specific foundations, the NIH, and the biomedical industry to become more involved.

The Foundation is on the leading edge of the venture philanthropy and social entrepreneurship movements and is a model of how private philanthropy can work in concert with academia, industry and government to bridge the gap between research and commercialization of a high-impact medical technology.

Established in 2006 as a tax exempt organization, the Foundation is based in Charlottesville Virginia and has global activities.

### About Focused Ultrasound

Focused ultrasound is a revolutionary, noninvasive therapeutic technology with the potential to transform the treatment of many serious medical disorders including tumors of the brain, breast, prostate, liver and other organs, Parkinson’s disease, epilepsy, and stroke. With ongoing research, focused

ultrasound could address unmet clinical needs and provide treatments which are superior to best current therapy, thereby improving the quality of life and longevity for millions of patients around the world.

This breakthrough technology uses ultrasonic energy guided by magnetic resonance or ultrasound imaging to treat tissue deep in the body without incisions or radiation. Multiple intersecting beams of ultrasound are directed and concentrated with on a target as small as a grain of rice, much like a magnifying glass can focus multiple beams of light on a single point.

A variety of profound biological effects result at the focal point where the beams converge; where individual beams pass unfocused through adjacent tissue on the way to their target, they exert no effect or damage. Integrated magnetic resonance and ultrasound imaging identifies and targets the tissue to be treated, guides and controls the treatment interactively, in real time, and provides immediate confirmation of the effectiveness of the therapy. Because focused ultrasound offers many mechanisms of action, treatment of a wide variety of conditions is possible.

Focused ultrasound has the potential to be the ultimate in noninvasive surgery, an alternative or complement for radiation therapy, the means to dissolve blood clots and restore circulation through blocked vessels, and a way to deliver drugs in extremely high concentration to a precise point in the body, thus avoiding systemic toxicity.

Focused ultrasound is performed in an outpatient setting without general anesthesia. There are no incisions or scars, minimal pain and discomfort, and more rapid recovery. The technology has the potential to result in fewer complications such as infection or blood clots, avoid the toxic side effects of drugs and radiation therapy, and deliver treatment that is safer and more effective, costs less, and produces an immediate and verifiable effect.

Focused ultrasound is approved in the US and EU and a number of other countries for treatment of uterine fibroids and approved in the EU and other countries for treatment of bone metastases and prostate cancer. In addition, extensive research is being conducted around the world on a number of clinical applications.

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The information in this report was provided by manufacturers and the focused ultrasound research community to the Focused Ultrasound Foundation. The FUS Foundation aims to provide the most accurate information; if you have more current or updated information please send it to: [progress@fusfoundation.org](mailto:progress@fusfoundation.org).

Manufacturers by Region

■ MR guidance ■ US guidance ■ MR & US guidance ■ Camera Guidance

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North America

- FUS Instruments Inc.
- Histosonics, Inc.
- International Cardio Corporation, LLC
- Kona Medical
- Mirabilis Medica
- Profound Medical Inc.
- SonaCare Medical, LLC
- Verasonics

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Europe

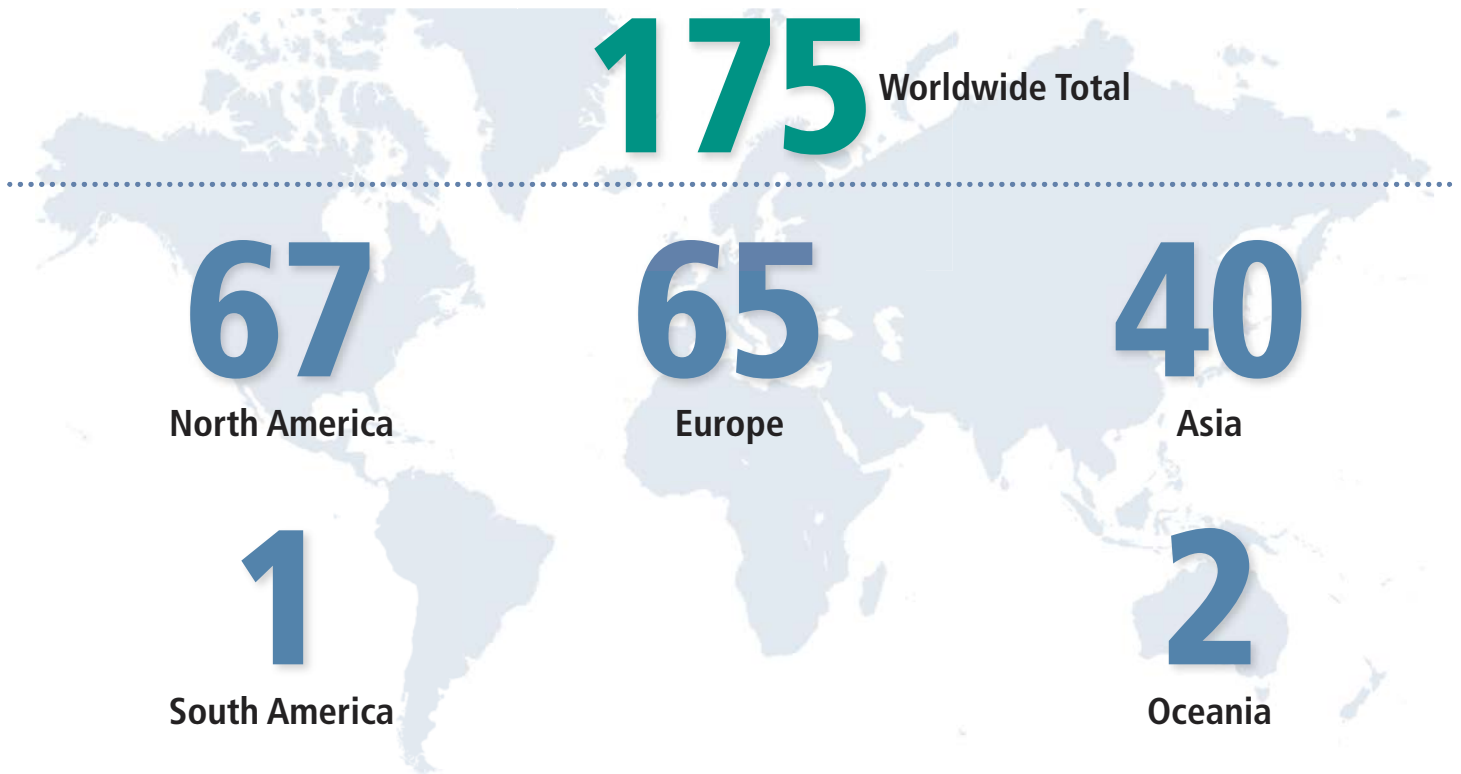
- Acublate
- EDAP TMS S.A.
- EyeTechCare
- Image Guided Therapy (IGT)
- InSightec LTD
- Medsonic LTD
- Philips Healthcare
- Slender Medical LTD
- Supersonic Imagine
- Theraclion

8

Asia

- Alpinion Medical Systems
- Changjiangyuan Technology Development Co., LTD
- Chongqing Haifu (HIFU) Medical Technology Co., LTD
- Mianyang Sonic (SUONIKE) Electronic
- Shanghai A&S Co., LTD
- Shenzhen pro-HIFU Medical Tech. Co., LTD
- Shenzhen Wikkon
- SITU SUNTEC

All Research Sites by Region



Any FUS research site conducting technical, pre-clinical, or clinical FUS research.

Research Sites by Region

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North America

- Artann Laboratories
- Boston University
- Brigham and Women's Hospital (BWH)
- Can-AmHIFU
- Children's National Hospital
- CHI St. Luke's Health
- City of Hope
- Cleveland Clinic
- Columbia University
- Drexel University
- Duke University
- Fox Chase Cancer Center
- Grand Strand Urology
- Indiana University Health, University Hospital
- Jewish General Hospital
- Johns Hopkins University School of Medicine
- Lawson Health Research Institute
- London Health Sciences Centre (LHSC)
- Mayo Clinic - Minnesota
- Medical University of South Carolina (MUSC)
- Memorial Sloan-Kettering Cancer Center
- Metropolitan Urology
- Montefiore Medical Center
- National Institutes of Health (NIH)
- New York University (NYU) Langone Medical Center and School of Medicine
- North Carolina State University
- NYP - Weill Cornell Medical Center
- Oregon Health and Science University
- ProMedica Toledo Hospital
- Southeast Urology Network
- Stanford University School of Medicine
- Sunnybrook Health Sciences Centre
- Swedish Neurosciences Institute
- The Hospital for Sick Children (SickKids)
- The Methodist Hospital
- Thunder Bay Regional Research Institute
- Tulane University
- UCLA
- UCLA Ronald Reagan Medical Center
- University Hospitals of Cleveland Case Medical Center
- University MRI & Diagnostic Imaging Centers - South
- University of California, Davis
- University of California at San Diego
- University of California San Diego (UCSD) Thornton Hospital
- University of California San Francisco (UCSF)
- University of Chicago
- University of Cincinnati
- University of Illinois at Urbana-Champaign (USUC)
- University of Kansas - KU Bioengineering Research Center Mechanical Engineering
- University of Maryland School of Medicine
- University of Michigan (UMich)
- University of Minnesota
- University of Texas MD Anderson Cancer Center
- University of Utah
- University of Virginia (UVA) Health System
- University of Washington
- University of Wisconsin Carbone Cancer Center
- Urologic Consultants of Southeastern Pennsylvania
- Urology Associates
- Urology Centers of Alabama
- Urology of San Antonio
- UT Southwestern
- Vanderbilt University
- Wake Forest University Baptist Medical Center
- Walter Reed National Military Medical Center
- William Beaumont Health Systems
- Winthrop University Hospital

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South America

- Instituto do Cancer do Estado de Sao Paulo (ICESP)

Research Sites by Region

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Europe

- Amper Klinik
- Azienda Ospedaliera San Paolo
- Basingstoke and North Hampshire Hospital
- Brustzentrum Marienhospital Bottrop
- Careggi General Hospital
- Center for Ultrasound Functional Neurosurgery
- Centre Léon Bérard
- Charité Universitätsmedizin Berlin
- CHU de Bordeaux - Hôpital du Tondu
- CHU de Bordeaux - Hôpital Saint-André
- CHU de Lille - Hôpital Huriez
- CHU de Toulouse - Hôpital Rangueil
- CHU de Tours - Hôpital Bretonneau
- Churchill Hospital
- Cisanello Hospital of University of Pisa
- Clinica oculistica Università - Ospedale oftalmico
- Cyprus University of Technology
- Eindhoven University of Technology
- European Institute of Oncology
- Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico
- Fraunhofer Institut IBMT
- German Cancer Research Center (DKFZ)
- Hôpital Cochin
- Hôpital Pitié-Salpêtrière
- Hôpitaux Universitaires de Genève (HUG)
- Hospices Civils de Lyon
- Hospital Clínico San Carlos
- Hospital Universitario Marqués de Valdecilla (HUMV)
- Inserm Lyon
- Institute for Medical Science and Technology (IMSAT)
- Institut Gustave Roussy
- Institut Langevin (EPSCI)
- Institut Mutualiste Montsouris
- Instituto Cartuja de Técnicas Avanzadas en Medicina
- Kantonsspital Winterthur
- Klinikum Fürth
- Laboratorio di Tecnologie Oncologiche (LATO) HSR Giglio –  
Fondazione Istituto San Raffaele G. Giglio di Cefalù
- Medical Center of Central Bank of Russian Federation
- N. N. Petrov Research Institute of Oncology
- National Medical Surgery Center
- Niguarda Hospital
- Ospedale Generale Regionale "Francis Miulli"
- Research Center for Obstetrics, Gynecology and  
Perinatology of Russian Ministry of Health and  
Social Development
- Rostov Scientific Research Institute of Oncology
- Scuola Superiore Sant'Anna
- St. Guy's and St Thomas Hospital
- St. Mary's Hospital
- The Institute of Cancer Research (ICR)
- The Intervention Centre, Oslo University Hospital  
Rikshospitalet
- Thomayer University Hospital
- Università degli Studi di Parma
- Universitätsklinikum Tübingen
- University Children's Hospital Zurich
- University Hospital of Endocrinology
- University Hospital of Grenoble
- University Hospital Schleswig-Holstein
- University Medical Center (UMC) Utrecht
- University of Geneva
- University of Heidelberg
- University of Hull
- University of L'Aquila
- University of Munich
- University of Rome - La Sapienza
- Urologische Universitätsklinik Magdeburg
- VTT Technical Research Centre of Finland

Any FUS research site conducting technical, pre-clinical, or clinical FUS research.

## Research Sites by Region

40

### Asia

307 Hospital of PLA  
 Apollo Specialty Hospital, Chennai  
 Breastopia Namba Hospital  
 Central Hospital of Shanghai Xuhui District  
 CHA Bundang Medical Center  
 Chaim Sheba Medical Center  
 Chaum Hospital  
 Children's Hospital of Chongqing Medical University  
 Chongqing Medical University  
 First Affiliated Hospital of Medical College of Xi'an Jiaotong University  
 First Affiliated Hospital of Zunyi Medical College  
 First Maternal and Child Health Hospital of Shanghai  
 Fundan University Huashan Hospital  
 Fundan University Shanghai Cancer Center  
 Gsl medical college  
 HAIFU Hospital  
 Indraprastha Apollo Hospital  
 Institute of Ultrasonic Engineering in Medicine and Clinical Centre for Tumour Therapy  
 Jaslok Hospital and Research Centre  
 Kochi University Hospital  
 Nanyang Technological University  
 National Medical Research Center  
 Peking Union Hospital, Chinese Academy of Medical Sciences  
 Peking University First Hospital  
 PLA 301 Hospital (General Hospital of the People's Liberation Army)  
 Queen Mary Hospital of the University of Hong Kong  
 Rambam Medical Center  
 Samsung Medical Center  
 Seoul National University Hospital  
 Shinsuma General Hospital  
 SRL Diagnostics - Jankharia Imaging  
 Suining Central Hospital  
 Taipei Medical University Hospital  
 The First Affiliated Hospital of Chongqing Medical University  
 The Second Artillery General Hospital of Chinese PLA  
 The Third Xiangya Hospital of Central South University  
 Tokyo Women's Medical Hospital  
 University of Malaya (UMMC)  
 YUCM Severance Hospital  
 YUMC Gangnam Severance Hospital

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### Oceania

Future Medical Imaging Group (FMIG)  
 Royal Women's Hospital Melbourne

Any FUS research site conducting technical, pre-clinical, or clinical FUS research.



Technical Research Sites by Region



Technical Research Sites by Region and Areas

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North America

- Focused Ultrasound Monitoring
- Focused Ultrasound Physics
- Focused Ultrasound Transducer technology
- MR imaging for FUS guidance
- Ultrasound imaging for FUS guidance

- ■ Artann Laboratories
- Boston University
- ■ ■ Brigham and Women’s Hospital (BWH)
- Children’s National Hospital
- CHI St. Luke’s Health
- City of Hope
- ■ ■ Columbia University
- ■ Drexel University
- Duke University
- Johns Hopkins University School of Medicine
- ■ Mayo Clinic – Minnesota
- Medical University of South Carolina (MUSC)
- ■ North Carolina State University
- ProMedica Toledo Hospital
- Stanford University Medical Center
- ■ ■ Sunnybrook Health Sciences Centre
- Swedish Neurosciences Institute
- The Hospital for Sick Children (SickKids)
- ■ The Methodist Hospital
- ■ ■ Thunder Bay Regional Research Institute
- ■ Tulane University
- ■ UCLA
- ■ UCLA Ronald Reagan Medical Center
- University MRI & Diagnostic Imaging Centers - Sout
- ■ ■ University of California, Davis
- University of California at San Diego
- University of California San Francisco (UCSF)
- ■ University of Chicago
- University of Cincinnati
- ■ University of Illinois at Urbana-Champaign (UIUC)
- University of Maryland School of Medicine
- ■ ■ University of Michigan (UMich)
- ■ University of Minnesota
- ■ University of Texas MD Anderson Cancer Center
- ■ ■ University of Utah
- University of Virginia (UVA) Health System
- ■ ■ University of Washington
- ■ UT Southwestern
- ■ ■ Vanderbilt University
- Verasonics
- Wake Forest University Baptist Medical Center

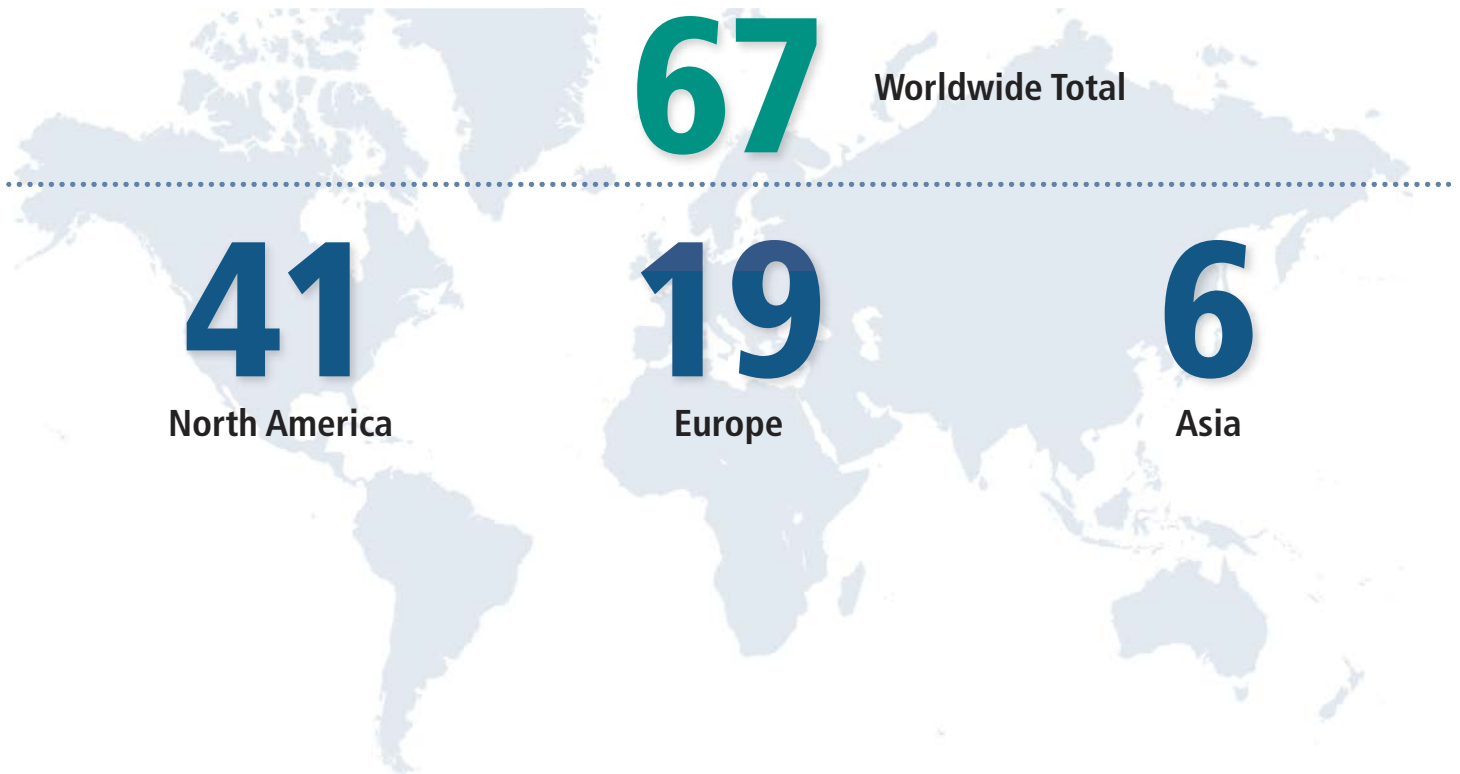
Technical Research Sites by Region and Areas



## Technical Research Sites by Region and Areas



Biological Effects Research Sites by Region

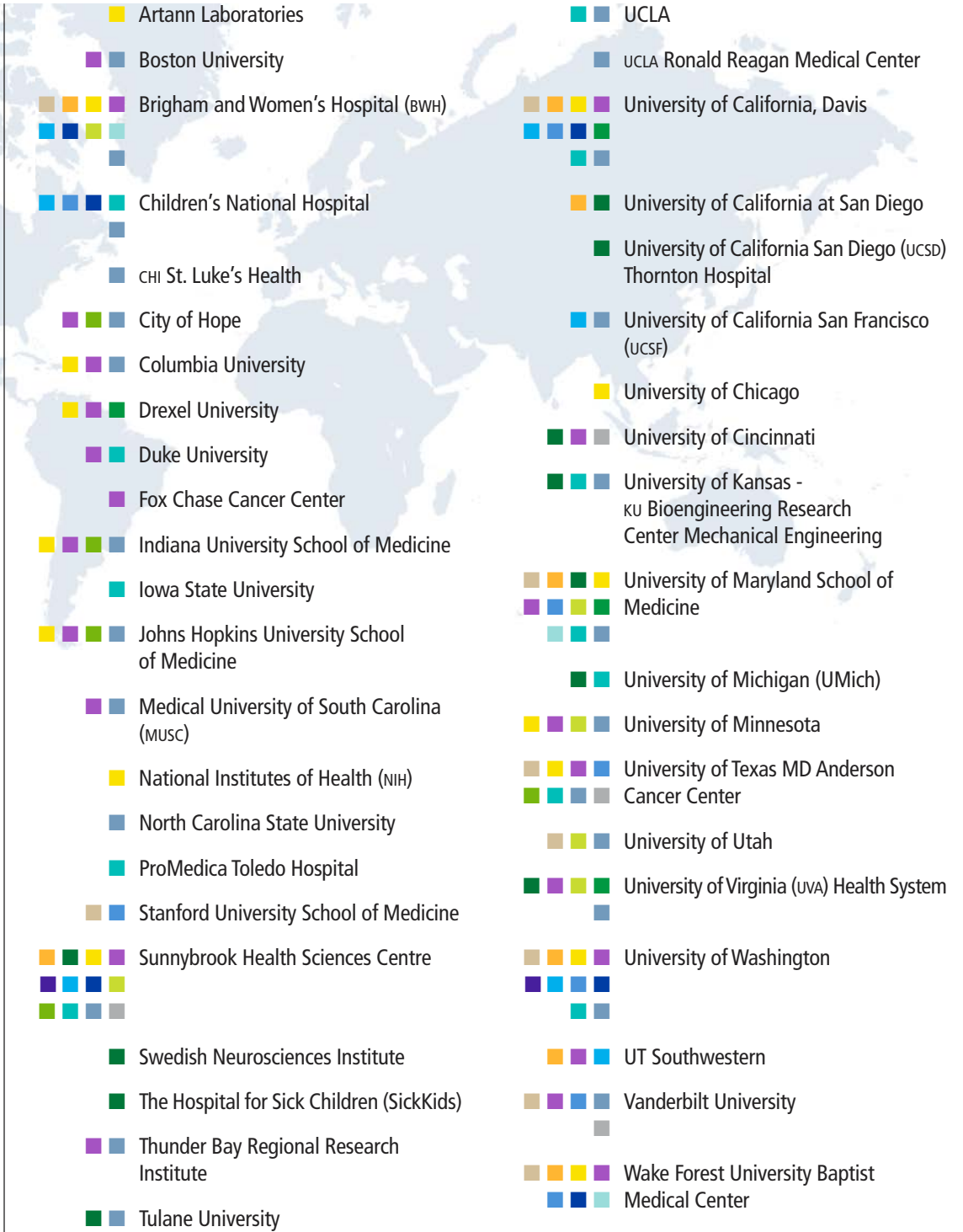


## Biological Effects Research Sites by Region

# 41

## North America

- Amplification of cancer biomarkers
- Blood brain barrier opening
- Blood vessel occlusion
- Cavitation
- Clot lysis
- Drug activity enhancement
- Drug delivery
- Hemostasis
- Hyperthermia
- Immunomodulation
- Increased vascular permeability
- Neuromodulation
- Radiation sensitization
- Sonodynamic therapy
- Stem cell delivery
- Tissue destruction (Histotripsy)
- Tissue destruction (Thermal Ablation)
- Vasodilatation



Biological Effects Research Sites by Region

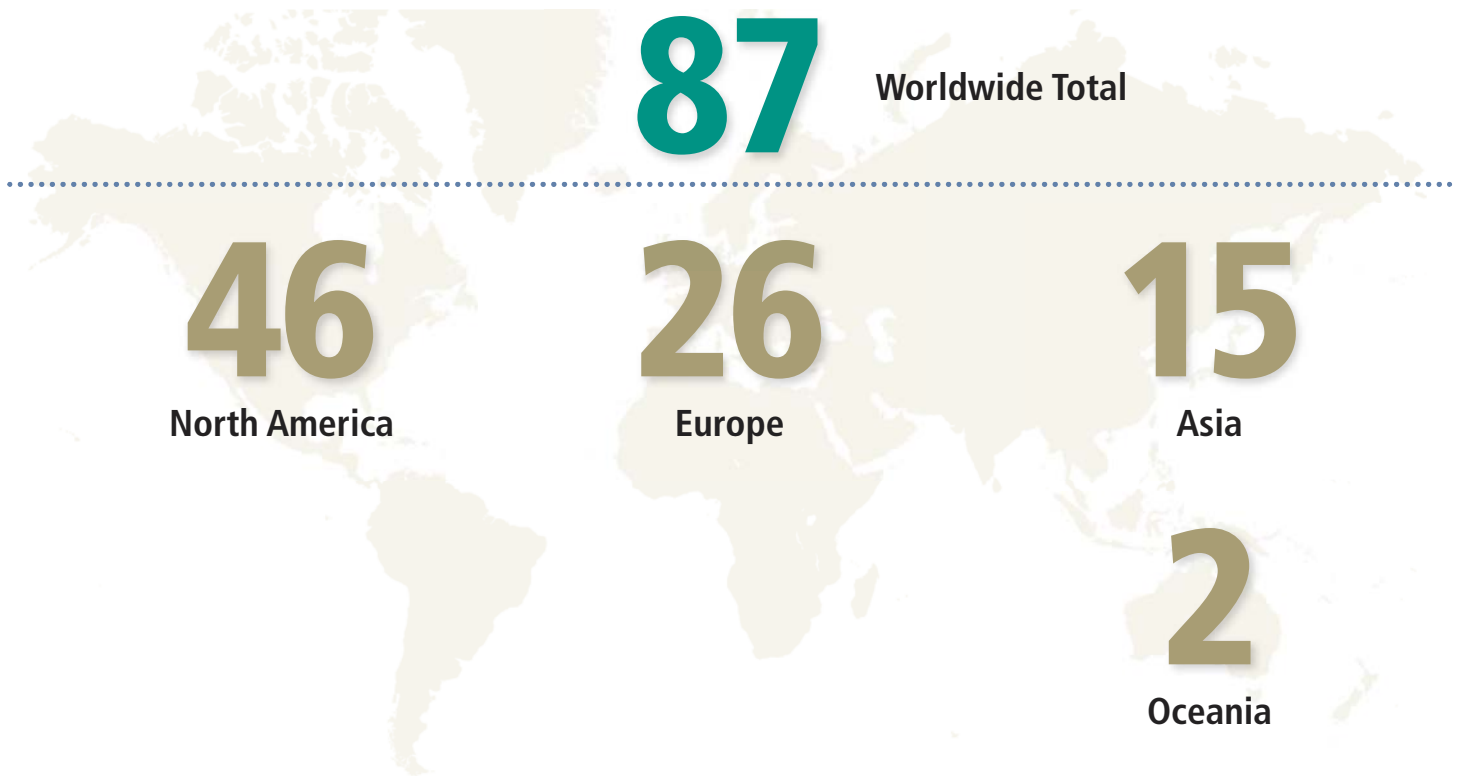


Biological Effects Research Sits by Region and Areas





Pre-Clinical Research Sites



Any FUS research site conducting animal research.

Pre-clinical Research Sites by Region

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North America

- Alzheimer's disease
- Atherosclerosis
- Atrial fibrillation
- Back and neck pain
- Benign prostatic hypertrophy
- Bladder tumors
- Bone metastases
- Brain tumors
- Breast cancer
- Breast fibroadenoma
- Cancer pain
- Colon cancer
- Depression
- Diabetes
- Epilepsy
- Essential tremor
- Glaucoma
- Hydrocephalus
- Hypertension
- Kidney tumors
- Liver tumor
- Neuropathic pain
- Obsessive-compulsive disorder
- Osteoarthritis
- Osteoid osteoma
- Pancreatic cancer
- Parkinson's disease
- Pediatric oncology
- Prostate cancer
- Prostate tumors
- Septal perforation
- Soft tissue tumors
- Spinal tumors
- Stroke
- Thyroid & Parathyroid tumors
- Trigeminal neuralgia
- Uterine adenomyosis
- Uterine fibroids



Pre-clinical Research Sites by Region

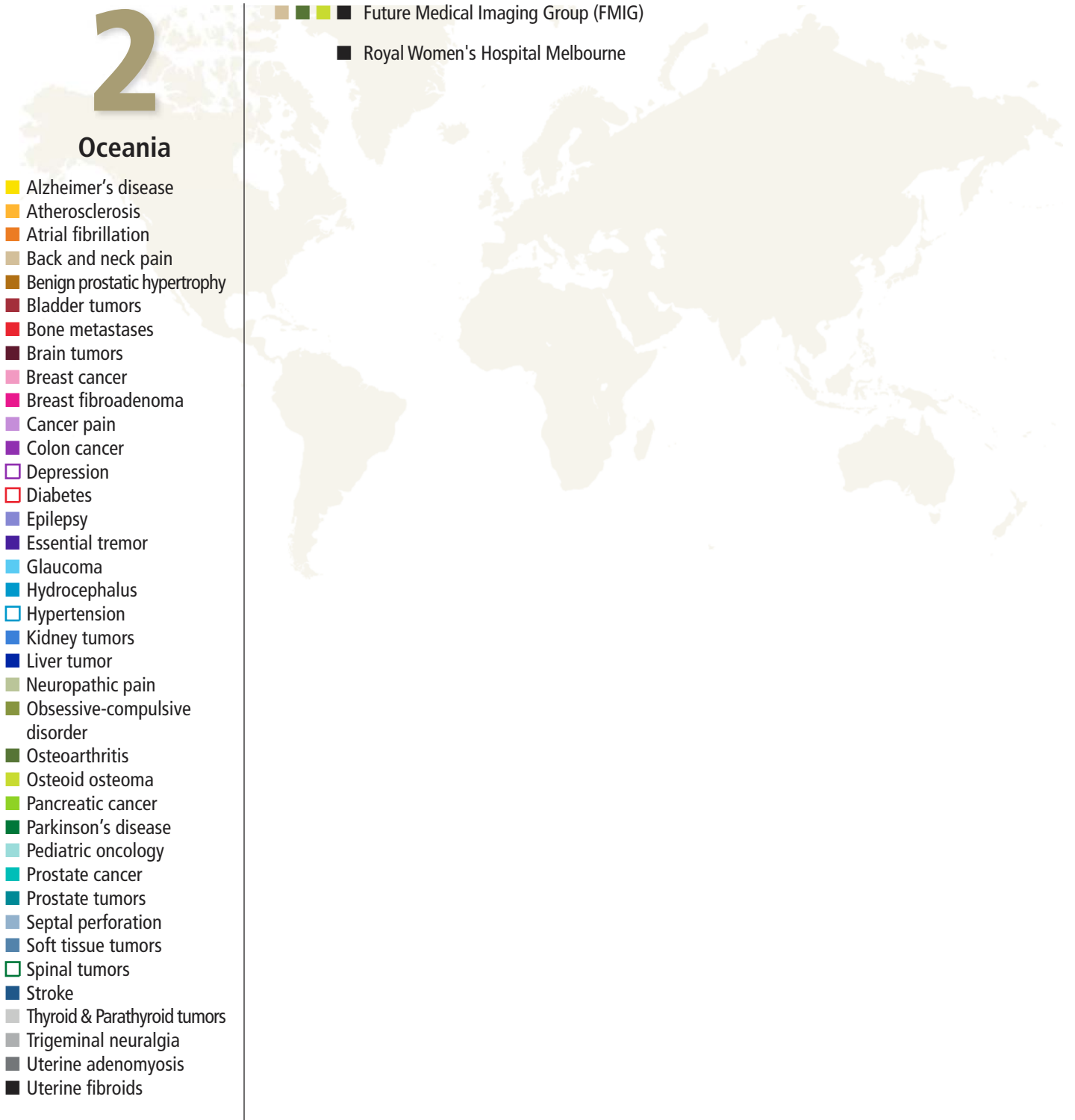


Pre-clinical Research Sites by Region



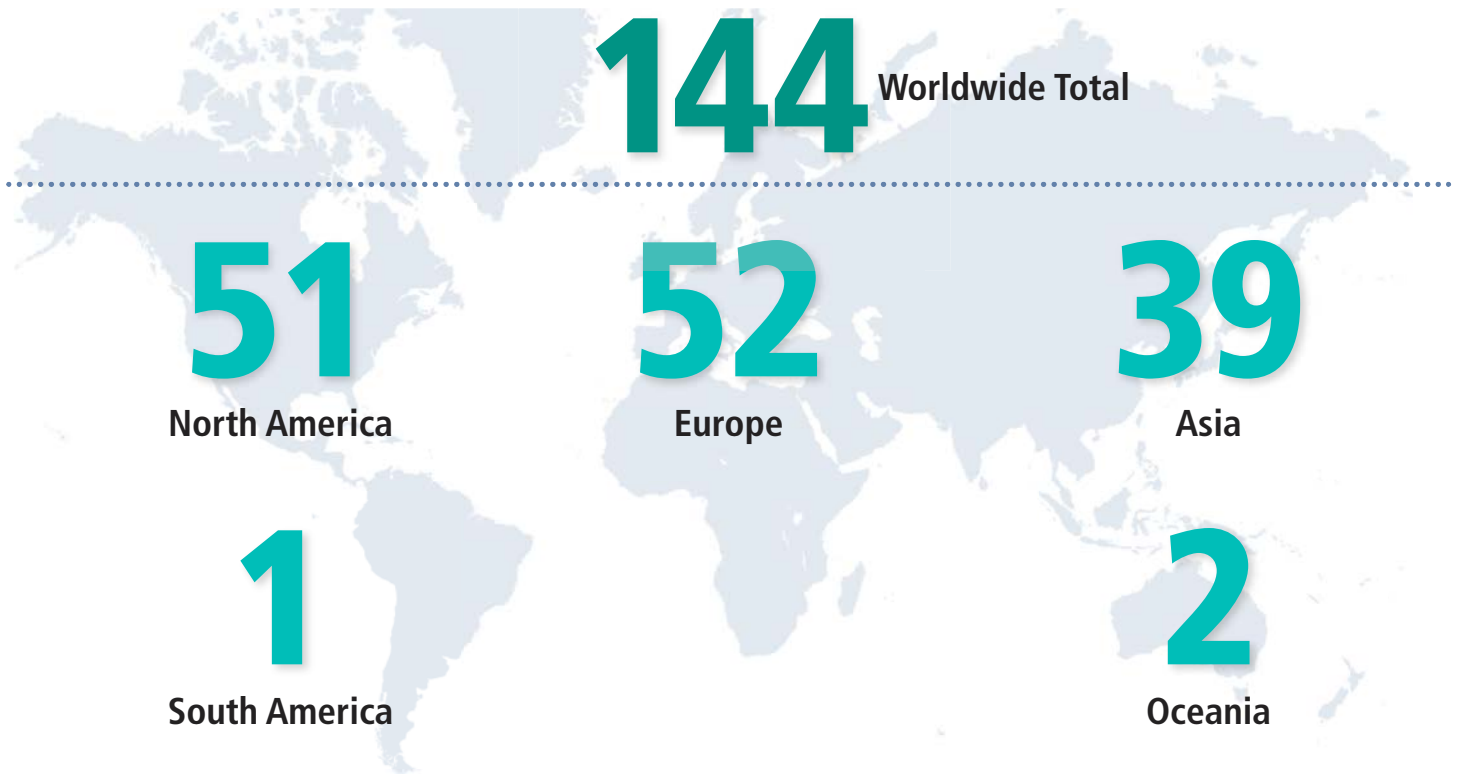
Any FUS research site conducting animal research.

Pre-clinical Research Sites by Region



Any FUS research site conducting animal research.

Clinical Research Sites by Region



Any FUS research site treating patients as part of a clinical study.

## Clinical Research Sites by Region

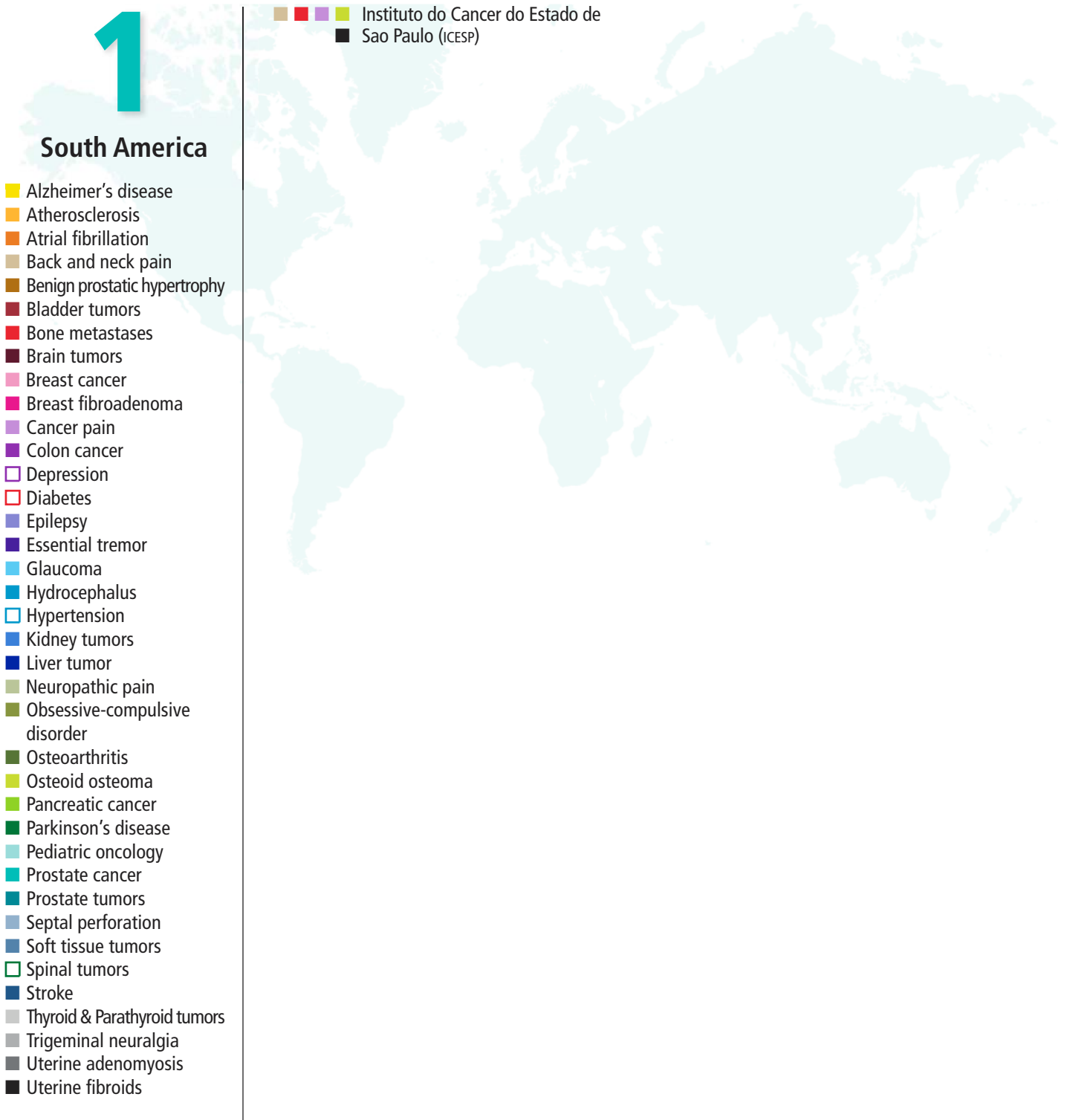
# 50

### North America

- Alzheimer's disease
- Atherosclerosis
- Atrial fibrillation
- Back and neck pain
- Benign prostatic hypertrophy
- Bladder tumors
- Bone metastases
- Brain tumors
- Breast cancer
- Breast fibroadenoma
- Cancer pain
- Colon cancer
- Depression
- Diabetes
- Epilepsy
- Essential tremor
- Glaucoma
- Hydrocephalus
- Hypertension
- Kidney tumors
- Liver tumor
- Neuropathic pain
- Obsessive-compulsive disorder
- Osteoarthritis
- Osteoid osteoma
- Pancreatic cancer
- Parkinson's disease
- Pediatric oncology
- Prostate cancer
- Prostate tumors
- Septal perforation
- Soft tissue tumors
- Spinal tumors
- Stroke
- Thyroid & Parathyroid tumors
- Trigeminal neuralgia
- Uterine adenomyosis
- Uterine fibroids

- ■ ■ ■ Artann Laboratories
- ■ ■ ■ Brigham and Women's Hospital (BWH)
- Can-AmHIFU
- ■ ■ ■ Children's National Hospital
- CHI St. Luke's Health
- ■ City of Hope
- Cleveland Clinic
- Duke University
- Grand Strand Urology
- Indiana University Health, University Hospital
- Jewish General Hospital
- ■ Johns Hopkins University School of Medicine
- London Health Sciences Centre (LHSC)
- ■ Mayo Clinic - Minnesota
- Memorial Sloan-Kettering Cancer Center
- Metropolitan Urology
- ■ ■ Montefiore Medical Center
- ■ ■ National Institutes of Health (NIH)
- New York University (NYU) Langone Medical Center and School of Medicine
- ■ NYP - Weill Cornell Medical Center
- Oregon Health and Science University
- ProMedica Toledo Hospital
- Southeast Urology Network
- ■ ■ Stanford University School of Medicine
- ■ ■ ■ Sunnybrook Health Sciences Centre
- ■ ■ Swedish Neurosciences Institute
- The Methodist Hospital
- Thunder Bay Regional Research Institute
- ■ ■ Tulane University
- ■ ■ ■ UCLA
- ■ ■ ■ UCLA Ronald Reagan Medical Center
- University Hospitals of Cleveland Case Medical Center
- ■ University MRI & Diagnostic Imaging Centers - South
- ■ University of California San Diego (UCSD) Thornton Hospital
- ■ ■ University of California San Francisco (UCSF)
- University of Chicago
- University of Cincinnati
- ■ University of Maryland School of Medicine
- University of Michigan (UMich)
- ■ ■ University of Texas MD Anderson Cancer Center
- ■ ■ ■ University of Virginia (UVA) Health System
- University of Wisconsin Carbone Cancer Center
- Urologic Consultants of Southeastern Pennsylvania
- Urology Associates
- Urology Centers of Alabama
- Urology of San Antonio
- ■ UT Southwestern
- Vanderbilt University
- Walter Reed National Military Medical Center
- William Beaumont Health Systems
- Winthrop University Hospital

## Clinical Research Sites by Region





## Clinical Research Sites by Region

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### Europe

- Alzheimer's disease
- Atherosclerosis
- Atrial fibrillation
- Back and neck pain
- Benign prostatic hypertrophy
- Bladder tumors
- Bone metastases
- Brain tumors
- Breast cancer
- Breast fibroadenoma
- Cancer pain
- Colon cancer
- Depression
- Diabetes
- Epilepsy
- Essential tremor
- Glaucoma
- Hydrocephalus
- Hypertension
- Kidney tumors
- Liver tumor
- Neuropathic pain
- Obsessive-compulsive disorder
- Osteoarthritis
- Osteoid osteoma
- Pancreatic cancer
- Parkinson's disease
- Pediatric oncology
- Prostate cancer
- Prostate tumors
- Septal perforation
- Soft tissue tumors
- Spinal tumors
- Stroke
- Thyroid & Parathyroid tumors
- Trigeminal neuralgia
- Uterine adenomyosis
- Uterine fibroids

- Amper Klinik
- Azienda Ospedaliera San Paolo
- Basingstoke and North Hampshire Hospital
- Brustzentrum Marienhospital Bottrop
- Careggi General Hospital
- Center for Ultrasound Functional Neurosurgery
- Centre Léon Bérard
- Charité Universitätsmedizin Berlin
- CHU de Bordeaux - Hôpital du Tondu
- CHU de Bordeaux - Hôpital Saint-André
- CHU de Lille - Hôpital Huriez
- CHU de Toulouse - Hôpital Rangueil
- CHU de Tours - Hôpital Bretonneau
- Churchill Hospital
- Cisanello Hospital of University of Pisa
- Clinica oculistica Università - Ospedale oftalmico
- European Institute of Oncology
- EyeTechCare
- Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico
- Hôpital Pitié-Salpêtrière
- Hospices Civils de Lyon
- Hospital Clínico San Carlos
- Inserm Lyon
- Institut Gustave Roussy
- Institut Mutualiste Montsouris
- Instituto Cartuja de Técnicas Avanzadas en Medicina
- Kantonspital Winterthur
- Klinikum Fürth
- Laboratorio di Tecnologie Oncologiche (LATO) HSR Giglio – Fondazione Istituto San Raffaele G. Giglio di Cefalù
- Medical Center of Central Bank of Russian Federation
- N. N. Petrov Research Institute of Oncology
- National Medical Surgery Center
- Niguarda Hospital
- Ospedale Generale Regionale "Francis Miulli"
- Research Center for Obstetrics, Gynecology and Perinatology of Russian Ministry of Health and Social Development
- Rostov Scientific Research Institute of Oncology
- St. Guy's and St Thomas Hospital
- St. Mary's Hospital
- The Institute of Cancer Research (ICR)
- The Intervention Centre, Oslo University Hospital Rikshospitalet
- Thomayer University Hospital
- Università degli Studi di Parma
- Universitätsklinikum Tübingen
- University Children's Hospital Zurich
- University Hospital of Endocrinology
- University Hospital Schleswig-Holstein
- University Medical Center (UMC) Utrecht
- University of Heidelberg
- University of Hull
- University of L'Aquila
- University of Munich
- University of Rome - La Sapienza
- Urologische Universitätsklinik Magdeburg

## Clinical Research Sites by Region

# 39

### Asia

- Alzheimer's disease
- Atherosclerosis
- Atrial fibrillation
- Back and neck pain
- Benign prostatic hypertrophy
- Bladder tumors
- Bone metastases
- Brain tumors
- Breast cancer
- Breast fibroadenoma
- Cancer pain
- Colon cancer
- Depression
- Diabetes
- Epilepsy
- Essential tremor
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- Hypertension
- Kidney tumors
- Liver tumor
- Neuropathic pain
- Obsessive-compulsive disorder
- Osteoarthritis
- Osteoid osteoma
- Pancreatic cancer
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- Uterine fibroids

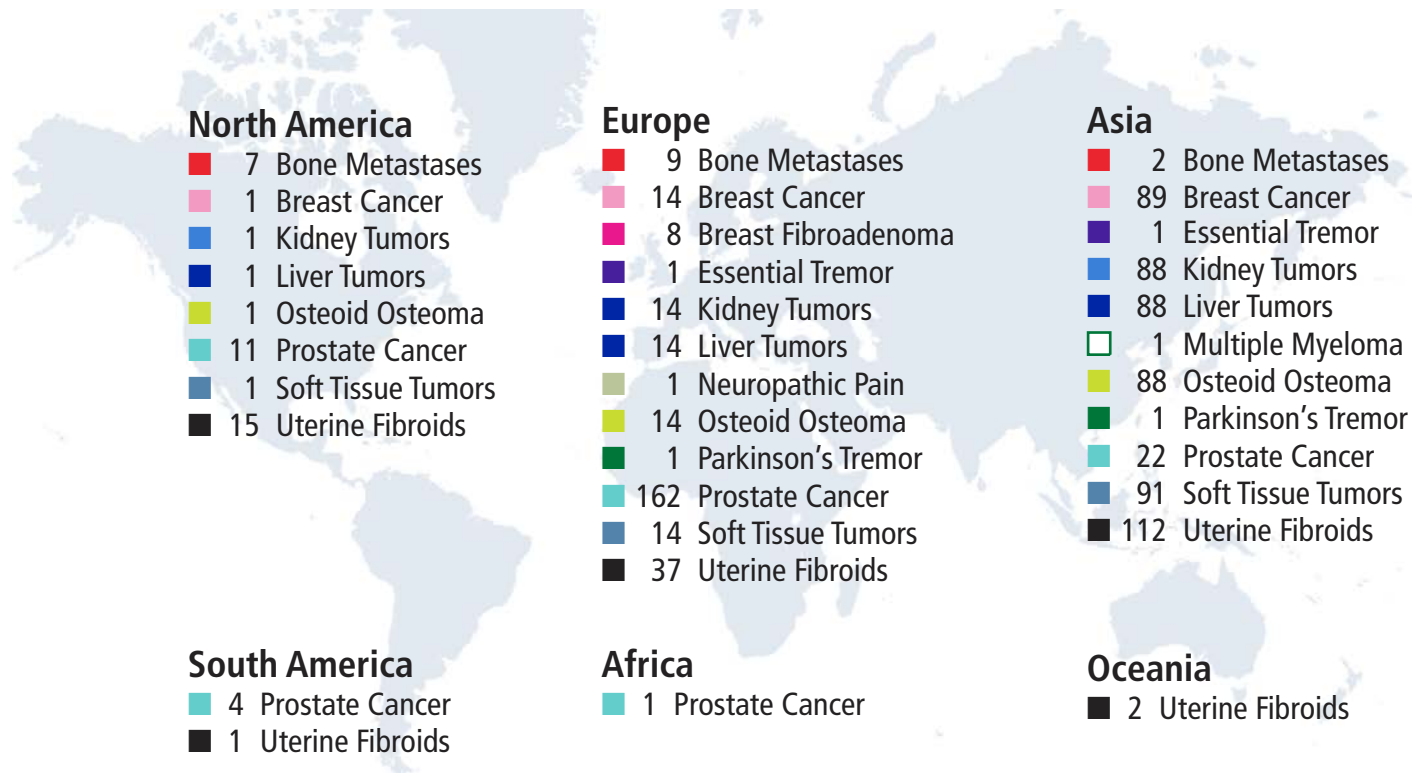




FUS Approvals by Region

Medical Condition	United States	Canada	Europe	Asia	Latin America	Middle East
<b>Adenomyosis</b>			✓			
<b>Bone</b>	✓	✓	✓	✓	✓	✓
<b>Breast Cancer</b>			✓	✓		
<b>Breast Fibroadenoma</b>			✓			✓
<b>Essential Tremor</b>			✓			✓
<b>Facet Rhizotomy</b>			✓			
<b>Hyperparathyroidism</b>			✓			
<b>Kidney Cancer</b>			✓	✓		
<b>Liver</b>			✓	✓		
<b>Neuropathic Pain</b>			✓			✓
<b>Osteoid Osteoma</b>			✓	✓		
<b>Pancreatic Cancer</b>			✓	✓		
<b>Parkinson's Tremor</b>			✓			✓
<b>Prostate Cancer</b>		✓	✓	✓	✓	✓
<b>Thyroid Nodules</b>			✓			✓
<b>Uterine Fibroids</b>	✓	✓	✓	✓	✓	✓

Commercial Treatment Sites by Indications and Regions



Any site with a focused ultrasound system and regulatory approval from the respective country and charging for procedures.

Commercial Treatment Sites by Country



Any site with a focused ultrasound system and regulatory approval from the respective country and charging for procedures.

Commercial Treatment Sites by Region



Any site with a focused ultrasound system and regulatory approval from the respective country and charging for procedures.

Commercial Treatment Sites by Region

**30**

**North America**

- Brigham and Women's Hospital (BWH)
- Can-Am HIFU
- Center for Advanced Medicine
- City of Hope
- Cleveland Clinic Canada
- Clinica Union Medica
- Doctors Hospital
- Don Mills Surgical Unit
- Duke Health Center at Southpoint
- Focused Ultrasound Northwest
- Fox Chase Cancer Center
- Galenia Hospital
- Hospital CIMA San Jose
- Hospital Medical Surgical Research Center (CIMEQ)
- Imagen Por Resonancia
- King Edward VII Memorial Hospital
- Les Cours Medical Centre
- Mayo Clinic – Minnesota
- Medica Sur Tlalpan
- Memorial Sloan-Kettering Cancer Center
- Riverside Methodist Hospital
- San Javier Hospital Marina
- Stanford University Medical Center
- Sunnybrook Health Sciences Centre
- Thunder Bay Regional Research Institute
- UCLA Ronald Reagan Medical Center
- University MRI & Diagnostic Imaging Centers – South
- University of California San Diego (UCSD)
- Thornton Hospital
- University of California San Francisco (UCSF)
- University of Virginia (UVA) Health System

**5**

**South America**

- Centro de urología avanzada de la Clínica Incor
- Hospital AC Camargo de São Paulo
- Hospital Carlos Andrade Marín
- Hospital Policia Nacional Guayaqui
- Instituto do Cancer do Estado de Sao Paulo (ICESP)

Any site with a focused ultrasound system and regulatory approval from the respective country and charging for procedures.



## Commercial Treatment Sites by Region

# 211

## Europe

Aarhus University Hospital  
 Agaplesion Diakonieklinikum Hamburg  
 Akademisches Lehrkrankenhaus der Universität Freiburg  
 Algemeen Ziekenhuis Middelheim  
 Alliance Medical, Italy  
 Amper Klinik  
 Amphia Ziekenhuis  
 Asklepios Kliniken Weißenfels-Hohemölsen GmbH  
 Asklepios Klinik Uckermark  
 Asklepios Paulinen Klinik  
 Az. Osp. San Giovanni Battista – Le Molinette  
 Azienda Ospedaliera ‘Di Venere – Giovanni XXIII’  
 Azienda Ospedaliera A. Cardarelli  
 Azienda Ospedaliera Sant’Andrea  
 Azienda Ospedaliera S.Maria degli Angeli  
 Azienda Ospedaliera Universitaria Tor Vergata  
 Azienda Sanitaria Locale 21  
 BMI Goring Hall Hospital  
 BMI Highfield Hospital  
 BMI The Kings Oak Hospital  
 Brighton and Sussex University Hospital  
 Brustzentrum Marienhospital Bottrop  
 Careggi General Hospital  
 Casa di Cura Abano Terme  
 Casa di Cura Candela SpA  
 Casa di Cura Columbus  
 Casa di Cura Villa Serena  
 CEMEDI Diagnostico por imagen  
 Center for Ultrasound Functional Neurosurgery  
 Center of Family Planning & Reproduction (CFPR)  
 Central Bank Medical Center  
 Central Institute of Traumatology and Orthopedics  
 Centre Hospitalier de Chambéry  
 Centre Hospitalier de La Rochelle – Hôpital Saint Louis  
 Centre Hospitalier de Saintonge  
 Centre Hospitalier Grace de Monaco  
 Centre Hospitalier Nord de Marseille – CHU  
 Centre Hospitalier Régional Universitaire de Lille  
 Centre Hospitalier Regional Universitaire de Tours  
 Centre Hospitalier Universitaire de Caen  
 Centro Hospitalario Quirón  
 Charité Universitätsmedizin Berlin  
 CHRU de Guadeloupe – Hôpital les Abymes  
 CHRU de Lille – Hôpital Huriez  
 CHRU de Strasbourg – Hôpital Civil

CHU de Bâle  
 CHU de Bordeaux – Hôpital du Tondu  
 CHU de Bordeaux – Hôpital Saint-André  
 CHU de Genève  
 CHU de Limoges – Hôpital Dupuytren  
 CHU de Nancy – Hôpital de Brabois  
 CHU de Nice – Hôpital Pasteur  
 CHU de Reims – Hôpital Robert Debré  
 CHU de Rennes  
 CHU de Rouen – Hôpital Charles Nicolle  
 CHU de Toulouse – Hôpital Rangueil  
 CHU de Tours – Hôpital Bretonneau  
 CHU Nord Saint Etienne  
 CHU v de Lausanne  
 Cisanello Hospital of University of Pisa  
 Clínica Virgen Blanca S.A.  
 Clinical Diagnostis Center Zdorovie  
 Clinique d’Alembert  
 Clinique Beau Soleil  
 Clinique De Montchoisi  
 Clinique des Grangettes  
 Clinique du Palais  
 Clinique Generale Beaulieu  
 Clinique Mutualiste Eugène André  
 Clinique Saint Georges  
 Clinique Saint-Michel  
 Clinique Universitaire Saint-Luc (UCL)  
 Clinique urologique Nantes Atlantis  
 CROB IRCCS Rionero  
 Diakonie-Klinikum Stuttgart  
 Diakonie Krankenhaus Kreuznacher Diakonie  
 DRK-Seepark Klinik Debstedt GmbH  
 DTL Medica  
 European Institute of Oncology  
 Ev. Jung-Stilling-Krankenhaus  
 Ev. Krankenhaus Göttingen-Weende e.V.  
 Foligno Hospital  
 Franciscus Ziekenhuis  
 Franziskus-Krankenhaus  
 Gemeinschaftspraxis für urologie  
 GPR Gesundheits-und Pflegezentrum  
 Rüsselsheim gGmbH-Klinikum  
 Groupe Hospitalier Diaconesses Croix Saint-Simon  
 HIFU Clinic – AMEDS Centrum  
 HIFU Terramed Conformal Centre  
 Hôpital Edouard Herriot  
 Hôpital Foch  
 Hôpital Jeanne de Flandre  
 Hôpital Pitié-Salpêtrière  
 Hôpital Tenon  
 Hospital Gral. Universitario Gregorio Maranon  
 Hospital of Mutua De Terrassa University  
 IMEX  
 INI Divisione Canistro  
 INI Divisione Grottaferrata  
 Institut Jules Bordet  
 Institut Mutualiste Montsouris  
 Instituto Cartuja

John Radcliffe Hospital  
 Kantonsspital Winterthur  
 Kantonsspital Frauenfeld  
 Katholisches Klinikum Essen GmbH  
 Kiev City Oncology Hospital  
 Klinik für Prostata-Therapie GmbH  
 Klinikum Fürth  
 Klinikum Itzehoe  
 Klinikum Konstanz  
 Klinikum Nürnberg  
 Klinik und Poliklinik für Urologie der Universität Regensburg am Caritaskrankenhaus St. Josef  
 Krankenhaus der Barmherzigen Brüder Wien  
 Krankenhaus Dresden-Friedrichstadt  
 Krankenhaus Hietzing  
 Krankenhaus Nordwest  
 Laboratorio di Tecnologia Oncologica (LATO)  
 HSR Giglio – Fondazione Istituto San Raffaele  
 G. Giglio di Cefalù  
 Loretto-Krankenhaus  
 Main Military Clinical Burdenko’s Hospital  
 Marienhospital Arnsberg GmbH  
 Marien-Hospital Marl  
 Medical Center of Central Bank of Russian Federation  
 Military Medical Academy St. Petersburg  
 Moniki  
 Moscow City Clinical Hospital Botkin  
 Moscow Regional Rehabilitation Center of Roszdrav  
 Mount Alvernia Hospital  
 N. N. Petrov Research Institute of Oncology  
 National Medical Surgery Center  
 Niguarda Hospital  
 NII of Urology  
 Nottingham University City Hospital NHS Trust  
 Nuova Villa Claudia  
 Orenbourg Oncology Center  
 Ospedale “Cardinal Massaia” di Asti  
 Ospedale “Misericordia e Dolce” di Prato  
 Ospedale di Gorizia  
 Ospedale di Massa  
 Ospedale di Nocera Inferiore Umberto I  
 Ospedale San Bartolomeo di Sarzana  
 Ospedale San Raffaele Giglio di Cefalù  
 Ospedale Sant’ Anna di Como  
 P.O. di Castellanza  
 P.O di Este  
 Paracelsus Klinik Golzheim  
 Paracelsus Klinik Reichenbach GmbH  
 Policlinica San Antonio  
 Policlinico Gemelli  
 Polyclinique Bordeaux Nord Aquitaine  
 Polyclinique du Parc Rambot  
 Polyclinique Jean Villar  
 Princess Grace Hospital  
 Radiologische Gemeinschaftspraxis  
 Ramsay Springfield Hospital  
 Research Center for Obstetrics, Gynecology and Perinatology of Russian Ministry of Health and Social Development

ResoFus – Centre Medic Alomar  
 Rome American Hospital  
 Rostov Scientific Research Institute of Oncology  
 Rotkreuzklinikum München  
 Saint Marina Hospital  
 Samara Oncology Centre  
 Sankt Katharinen Krankenhaus  
 Saratov City Medical Academy  
 Segeberger Kliniken  
 Sora Cancer Centre  
 Spire Parkway Hospital  
 St. Antonius-Hospital  
 St. Barbara Hospital  
 St. Elisabeth-Krankenhaus der Katharina-Kasper gGmbH  
 St. Elisabeth-Krankenhaus Köln-Hohenlind  
 St. Elisabeth-Krankenhaus Leipzig  
 St.-Josefs-Hospital GmbH  
 St. Mary’s Hospital  
 Städtisches Klinikum München  
 Stepping Hill NHS Hospital  
 St. Petersburg Oncology Dispanser  
 Sussex Nuffield Hospital  
 The Community Foundation Serving Richmond and Central Virginia  
 The Essex Nuffield  
 The HIFU Clinic Spire Gatwick Park Hospital  
 The I. M. Sechenov Moscow Medical Academy (MMA)  
 The Intervention Centre, Oslo University Hospital  
 Rikshospitalet  
 The King George Hospital NHS Trust  
 The Princess Royal Hospital NHS Trust  
 Theresienkrankenhaus Mannheim  
 The Priory Hospital  
 The Royal Free NHS Trust Hospital  
 The Royal Surrey County Hospital NHS Trust  
 The Wellington Hospital  
 The Winterbourne Hospital  
 Thomayer University Hospital  
 TILAK Unternehmen Gesundheit  
 Ufa Oncology Center  
 Universitätsklinikum Bonn (University Hospital Bonn)  
 Universitätsspital Basel  
 Universitätsspital Nord  
 University Children’s Hospital Zurich  
 University College London Hospitals  
 University Hospital, MR Center  
 University Hospital of Endocrinology  
 University Hospital Schleswig-Holstein  
 University Medical Center (UMC) Utrecht  
 University Medical Center Lubeck  
 University of L’Aquila  
 University of Oxford  
 University of Rome – La Sapienza  
 University of Vienna  
 Urologisches Zentrum  
 Urologische Universitätsklinik Heidelberg  
 Zaans Medisch Centrum

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## Commercial Treatment Sites by Region

1

Africa

Christiaan Barnard Memorial Hospital INTAMED

2

Oceania

Future Medical Imaging Group (FMIG)  
The Royal Women's Hospital Melbourne

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Any site with a focused ultrasound system and regulatory approval from the respective country and charging for procedures.

## Commercial Treatment Sites by Region

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## Asia

307 Hospital of PLA  
 Affiliated Hospital of Armed Police's Medical College  
 Affiliated Hospital Of Chuanbei Medical College  
 Affiliated Hospital of Qinghai Medical College  
 Affiliated Hospital Of Xinxiang Medical College  
 Affiliated Hospital of Yokohama University  
 Aizu Chuo Hospital  
 Al Zahra Hospital  
 Baoji Maternal and Child Health Hospital  
 Baoson Hospital  
 Beijing Cancer Hospital  
 Beijing Hospital  
 Bharat Scans Private Limited  
 Breastopia Namba Hospital  
 Cardinal Tien  
 CHA Bundang Medical Center  
 Chaim Sheba Medical Center  
 Chang Gung Memorial Hospital (Chiayi)  
 Chang Gung Memorial Hospital (Kaohsiung)  
 Chang Gung Memorial Hospital (Keelung)  
 Chang Gung Memorial Hospital (Linkou)  
 Chang Gung Memorial Hospital (Taipei)  
 Changhua Christian Hospital  
 Chaum Hospital  
 Chengdu Maternal and Child Health Center Hospital  
 Chengdu Shuangnan Hospital  
 Children's Hospital of Chongqing Medical University  
 China Medical University Beigang Hospital  
 Chongqing Three Gorges Central Hospital  
 City Hospital of Bincheng District in Binzhou City  
 Clinical E.T.  
 Clumax Diagnostics  
 Concept Medicare (India) Pvt Ltd.  
 Dalian Friendship Hospital  
 Dar al Shifaa Hospital  
 Daxian People's Hospital  
 Dengfeng People's Hospital  
 Ekaterinburg Regional Hospital N1/URAL Medical  
 University Central Ural Region  
 Fifth People's Hospital of Nanchong City  
 First Affiliated Hospital, Zhengzhou University  
 First Affiliated Hospital of Guangxi Medical University

First Affiliated Hospital of Kunming Medical University  
 First Affiliated Hospital of Zunyi Medical College  
 First Maternal and Child Health Hospital of Shanghai  
 Fortis Hospital  
 Fudan University Cancer Hospital  
 Fujian Provincial Hospital  
 Fukuoka Tokushukai Hospital  
 Fukuoka Tokushukai Medical Center  
 Fuling Center Hospital of Chongqing  
 Gazprom medical centre, OMSKWest Siberia Region  
 Guangzhou First Municipal People's Hospital  
 Guantao People's Hospital of Hebei  
 HAIFU Hospital  
 Haifu Hospital of Tangshan Transportation Group Co. Ltd.  
 Haikou Municipal Hospital  
 Hokuto Hospital  
 Hong-Kong Sanatorium & hospital  
 Hôpital Sacré Coeur  
 Huainan Eastern Hospital  
 Huabei Oil Field general hospital group  
 Huanggang Center Hospital  
 Hubei Maternal and Child Health Hospital  
 Incheon Christian Hospital  
 Incheon St. Mary's Hospital of the Catholic University  
 Institute of Ultrasonic Engineering in Medicine  
 and Clinical Centre for Tumour Therapy  
 Iseikai hospital  
 Itabashi Chuo Medical Center, Tokyo  
 Japan Affiliated Hospital of Chiba University  
 Jaslok Hospital and Research Centre  
 Jiangmen Wuyi Traditional Chinese Medicine Hospital  
 Jiangsu Armed Police Corps Hospital  
 Jiangsu Cancer Hospital  
 Jilin Center Hospital  
 Jiugang Hospital  
 Jiujiang Maternal and Child Health Hospital  
 Jixi People's Hospital  
 Kaixian People's Hospital  
 Kaoshiung Veterans General Hospital  
 Khanty-Mansysk Regional hospital North Siberia  
 King Fahad Medical City  
 King Khalid University Hospital  
 KKWomen and Children's Hospital  
 Kochi University Hospital  
 Lianyungang Orient Hospital  
 Liaoning Fushun Cancer Hospital  
 Luoyang Center Hospital  
 Maternal and Child Health Hospital of Yubei District  
 Nanshi Hospital  
 National Kidney and Transplant Institute  
 National Medical Research Center  
 No. 91 Central Hospital of the Liberation Army  
 Nong Ken Hospital  
 Obstetric Hospital of Changchun

Peking Union Hospital, Chinese Academy of Medical Sciences  
 Peking Union Medical Center  
 People's Hospital of Hunan Province  
 People's Hospital of Nanchuan District  
 People's Hospital of Xingtai  
 PLA 301 Hospital (General Hospital of the  
 People's Liberation Army)  
 Primus Super Specialty Hospital  
 Queen Mary Hospital of the University of Hong Kong  
 Ramayya Pramila Urology Hospital  
 Rambam Medical Center  
 Russian Railways (rzd) Hospital Central Siberia  
 Samsung Medical Center  
 Sapporo Toho hospital  
 Shaanxi Maternal and Child Health Hospital  
 Shandong Cancer Hospital  
 Shandong Guangrao Traditional Chinese Medicine Hospital  
 Shandong Qianfoshan Hospital  
 Shanxi Traditional Chinese Medicine Hospital  
 Shenzhen Maternal and Child Health Center Hospital  
 Shinsuma General Hospital  
 Sichuan University  
 Sindh Institute of Urology and Transplantation  
 Singapore General Hospital  
 srl Diagnostics – Jankharia Imaging  
 St. Peter's Hospital  
 Suining Central Hospital  
 Suining Hospital of Traditional Chinese Medicine  
 Sun Yat-Sen University Cancer Center  
 Sunrise Hospital  
 Taipei Medical University Hospital  
 The 452nd PLA Hospital  
 The Daqing Oil Field General Hospital Group  
 The First Affiliated Hospital of Chongqing Medical University  
 The First Affiliated Hospital of Wannan Medical College  
 The First People's Hospital of Shijiazhuang  
 The Fourth People's Hospital of Shenzhen  
 The Second Affiliated Hospital of Hebei Medical University  
 The Second Artillery General Hospital of Chinese PLA  
 The Sixth People's Hospital of Neijiang  
 The Tenth People's Hospital of Shanghai  
 The Third Xiangya Hospital of Central South University  
 Tung's Taichung MetroHarbor Hospital  
 University of Malaya (UMMC)  
 Women's Center India  
 Xiaoshan Birth Control Station  
 Xijing Hospital of The Fourth Military Medical University  
 Yamanashi University Medical Hospital  
 Yanbian Tianquan Hospital  
 Yongchuan Maternal and Child Health Hospital  
 Yonsei University College of Medicine  
 yumcGangnam Severance Hospital  
 Zibo Municipal Maternal & Children Health Hospital



**FOCUSSED  
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The information in this report was provided by manufacturers and the focused ultrasound research community to the Focused Ultrasound Foundation.

The FUS Foundation aims to provide the most accurate information; if you have more current or updated information please send it to: [progress@fusfoundation.org](mailto:progress@fusfoundation.org).