

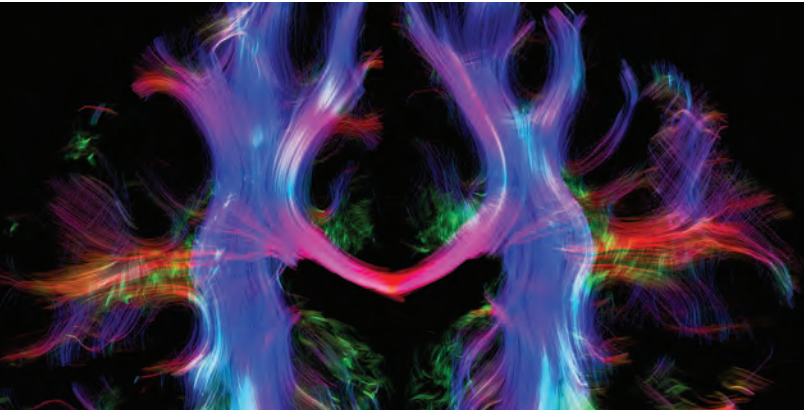


Focused Ultrasound Foundation

2019
Year in Review

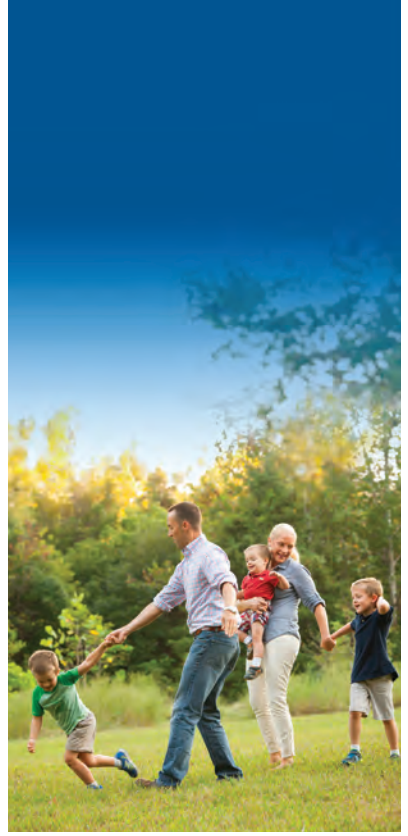
178

research projects funded
cumulative



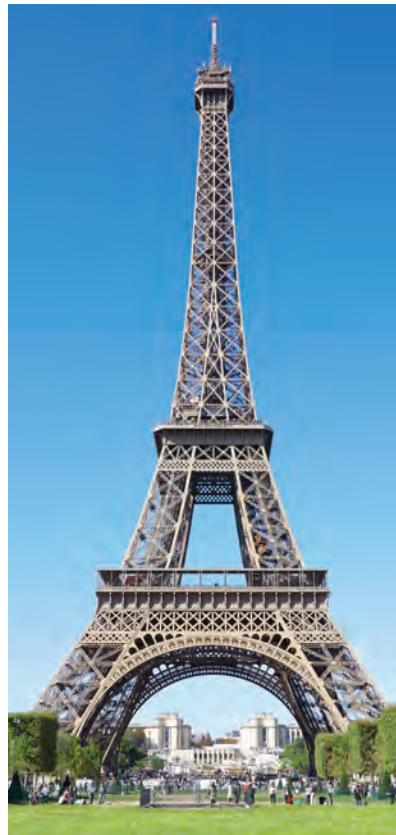
3

workshops: pancreatic
cancer, immunotherapy,
brain tractography



32

interns
and
global scholars



1 million
reached by
John Grisham's *The Tumor*



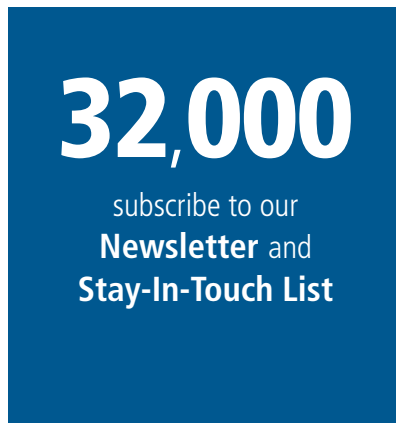
8

Centers of Excellence



32,000

subscribe to our
Newsletter and
Stay-In-Touch List



7th

International Symposium
November 2020



Timing, luck, but most importantly, people

The impact of the Foundation on the development of focused ultrasound has been far greater than anyone imagined; this has been due to timing, luck, but most importantly, people. Driving the field forward is an incredible force resulting from the amalgamation of our team, directors, council, and donors.

We are gratified and amazed by the progress to date, but much work remains. Thank you for being part of our community and helping us achieve our vision of improving the lives of millions of people with serious medical disorders.

The main challenges that the Foundation faces include focus—which of the 48 mechanisms of action of focused ultrasound are most likely to translate into new indications, and which of the 130-plus indications currently under investigation are going to provide unique value in terms of outcome and cost; productivity—how do we manage the explosive growth we have catalyzed and still maintain the size, quality, and culture of the organization; and funding—how can we best meet our five-year plan to raise \$60 million.

2019 saw many firsts, and we are on an accelerating trajectory to see focused ultrasound become a standard of care. Read on to learn about major research milestones across multiple diseases, reimbursement successes, our burgeoning Asia program, lives changed by focused ultrasound, plans for the upcoming 7th International Symposium, and much more.

As COVID-19 continues to spread worldwide, please be safe and be well.

Neal F. Kassell, MD

26

active clinical trials for
brain indications

Research aimed at advancing new applications of focused ultrasound is a priority of the Foundation to fulfill critical unmet clinical needs and transform care. Many first-in-field research milestones occurred this year in the areas of essential tremor, Parkinson's disease, epilepsy, and others.

Brain Program

This year brought major progress in using focused ultrasound in the brain to treat a wide variety of diseases; pilot clinical trials of feasibility and safety were completed, initiated, or are ongoing for **Alzheimer's disease**, **amyotrophic lateral sclerosis (ALS)**, **primary and metastatic brain tumors**, **obsessive-compulsive disorder (OCD)**, **depression**, **dystonia**, **epilepsy**, **pain**, **essential tremor**, and **Parkinson's**—including the first **staged bilateral treatments** for the latter two conditions.



Preclinical studies continue to push the boundaries of what we can do—testing new modes like sonodynamic therapy and histotripsy, delivering gene therapies across the blood-brain barrier, and improving treatment monitoring and safety. Several Foundation-funded preclinical laboratory studies were completed this year, representing advances in treating brain tumors, neurodegenerative disorders, and stroke. An additional four studies were initiated, including those targeting Parkinson's disease, brain tumors, and technical challenges associated with transcranial treatments. ■



Trial Updates

ALZHEIMER'S DISEASE

US | 5 of 10 patients treated
Canada | 7 of 30 patients treated

AMYOTROPHIC LATERAL SCLEROSIS (ALS)

Canada | 4 of 12 patients treated, initial results published

BRAIN TUMORS, PEDIATRIC

US | 1 patient treated for a total of 5/10

BREAST CANCER (HER2-POSITIVE), BRAIN METASTASES, BLOOD BRAIN BARRIER (BBB)

Canada | 4 of 12 patients treated, initial results published

GLIOBLASTOMA MAINTENANCE (BBB)

Canada | 6 patients treated for a total of 9/20
Korea | 7 patients treated for a total of 8/20
US | 4 of 20 patients treated

GLIOBLASTOMA, NEURONAVIGATION (BBB)

Taiwan | 2 of 10 patients treated, enrollment complete

GLIOBLASTOMA PRE-SURGERY (BBB)

US | 3 patients treated for a total of 4/15

DEPRESSION

Canada | 4 patients treated for a total of 8/12
Korea | 4-patient study, results published

OBSESSIVE COMPULSIVE DISORDER (OCD)

Canada | 2 patients treated for a total of 6/10

EPILEPSY, ANTERIOR NUCLEUS THALAMUS

US | 1 of 10 patients treated

EPILEPSY, NEUROMODULATION

Taiwan | 1 of 6 patients treated

ESSENTIAL TREMOR

UK, Spain | 7 of 30 patients treated

NEUROPATHIC PAIN

US | 3 patients treated for a total of 6/10

PARKINSON'S DISEASE, DEMENTIA

Spain | 10-patient study completed

PARKINSON'S DISEASE, DYSKINESIA (PIVOTAL)

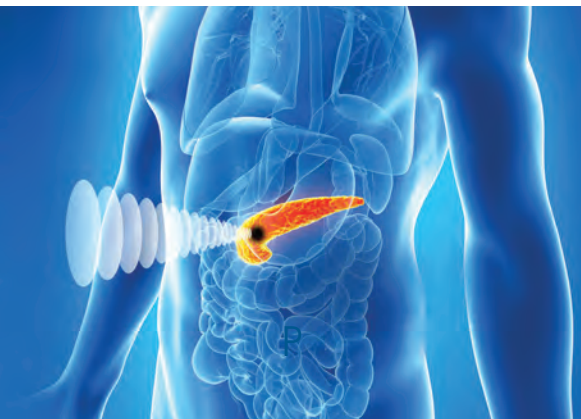
Global | 70 patients treated for a total of 91/92

PARKINSON'S DISEASE, STN

Spain, US | 40-patient study completed

PARKINSON'S TRACTOTOMY

Japan | 3 patients treated for a total of 8/10



Pancreatic Cancer Research

Focused ultrasound—used alone or in combination with other therapies—is being investigated to treat pancreatic cancer and the pain associated with the disease. The technology has the potential to provide pain relief by reducing tumor size and spread.

A Foundation-funded, international [pancreatic cancer registry](#) was launched this year, which aims to evaluate focused ultrasound as a treatment option for patients and to help guide the future of research for this deadly disease.

Additionally, the Foundation [hosted a workshop](#) to create a clinical roadmap for developing focused ultrasound to treat pancreatic cancer. A wide range of experts convened to discuss the state of the technology, past studies, challenges, and future preclinical and clinical research directions for this promising new application. A white paper is available on the Foundation's website. ■

Immunotherapy Program

Cancer immunotherapy continues to be a promising area where focused ultrasound may be able to improve clinical outcomes for many patients. The Foundation's success in advancing this exciting field of research is due in part to our strong relationships with the [Cancer Research Institute \(CRI\)](#) and the [Parker Institute](#), which allow us to better leverage our donors' money and bring to bear experts in the field.

The Foundation currently has nine preclinical laboratory and four clinical trials in progress using focused ultrasound to treat brain metastases, breast cancer, glioblastoma, liver cancer, melanoma, ovarian cancer, pancreatic cancer, and prostate cancer.

In conjunction with CRI, the Foundation hosted a [Focused Ultrasound and Cancer Immunotherapy Workshop](#) in July; more than 50 leaders in the field from academia, industry, government, and advocacy met in Virginia to discuss the state of the field, determine next steps, and set priorities for continuing to explore using focused ultrasound in combination with several types of immunotherapy.

Additional 2019 highlights include the treatment of additional patients in a breast cancer immunotherapy trial at the University of Virginia and the creation of the Cancer Immunotherapy Advisory Board to provide advice and counsel to the Foundation in the activities of our Cancer Immunotherapy Program. ■



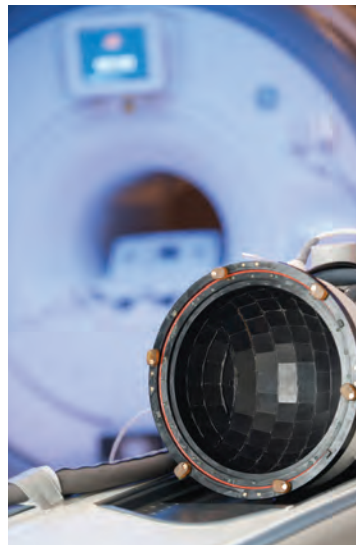
Musculoskeletal Research

The Foundation is dedicated to determining if focused ultrasound can improve the lives of patients with chronic musculoskeletal diseases, including facetogenic back pain, osteoid osteoma, and osteoarthritis.

A 10-patient [facetogenic back pain \(x-ray guided\) study](#) at McGill University in Montreal and Silver Medical Group, a private clinic in Toronto, completed enrollment this past year. Publication of these results is expected in 2020; a follow-up, five-site trial that will treat 30 patients has been initiated in Canada.

Two comparative pediatric trials are ongoing for patients with osteoid osteoma, a painful bone tumor. A [trial at Stanford University and the University of California, San Francisco](#), comparing focused ultrasound to radiofrequency ablation, has now enrolled 20 of 56 patients. An international study has enrolled 21 of 50 patients and is comparing focused ultrasound to a variety of interventions, including radiofrequency ablation, cryotherapy, laser treatment, and surgical excision.

A study using focused ultrasound to treat knee osteoarthritis, at Kochi University School of Medicine Hospital in Japan, is now complete, with 20 patients treated. ■



Focused ultrasound veterinary patient, Mayo, and her owner, John ▼

Veterinary Program

The [Foundation's Veterinary Program](#) was established in 2017 to develop focused ultrasound therapies to treat companion animals, providing veterinary researchers with state-of-the-art therapies for their patients while also collecting data to accelerate the adoption of the technology for human applications.

Projects are ongoing at Virginia Tech, Oklahoma State University, and Stanford University for the treatment of soft tissue tumors, mast cell tumors, liver cancer, and oral melanomas in pets. A technical advisory board has been established to define equipment features and functionality needed for success in the veterinary space, and a scientific advisory board was convened to identify clinical needs and prioritize funding applications. ■





Center of Excellence Paris

The Foundation's **Centers of Excellence Program**, established in 2009, recognizes luminary sites around the globe to showcase the technology and serve as hubs for collaboration. This year, **Physics for Medicine, Paris** (Inserm/ESPCI Paris/PSL Université/CNRS) was named the **latest Center of Excellence**, becoming the third such center in Europe and the eighth worldwide. The site is led by scientific director Jean-François Aubry, PhD, a former Foundation fellow. ■

External Research Awards Program

Our **Research Awards Program** funds preclinical, clinical, and technical projects in focused ultrasound, a crucial component of the Foundation's research portfolio, which aims to develop new treatments and techniques that can advance quickly to clinical (human) trials and ultimately improve the lives of patients around the globe. ■



Mathieu Pernot, PhD and Alexis Brice, director of the ICM (Brain and Spine Institute), at the Physics for Medicine Center of Excellence inauguration

Awards by the numbers

Since inception

54
projects completed

96%
had results presented at
scientific meetings

70%
had **results published**

28
had **follow-on funding**

\$5.3M
funding provided
for completed projects

\$42M
follow-on funding

x8
factor by which the Foundation
leverages donor contributions

▶ As the nexus of the focused ultrasound community, the Foundation sponsored more than 20 meetings and workshops throughout the year to provide a forum for exchanging knowledge and ideas, and to foster collaborations and partnerships. Planning is also underway for our biennial international symposium.

2020

The Foundation's biennial symposium is the world's leading forum for sharing the latest translational and clinical advances in focused ultrasound. The **7th International Symposium on Focused Ultrasound** will take place **November 8–13, 2020**, in McLean, Virginia.

Serving as **honorary president**, focused ultrasound pioneer **Joan Vidal-Jové**, MD, PhD, Head of Focused Ultrasound Ablation Oncology at Barcelona University Hospital, has treated more than 200 patients suffering from pancreatic cancer, liver tumors, soft tissue desmoid tumors, and lung cancer. Please plan to join us for the latest in focused ultrasound research across the field. ■



Joan Vidal-Jové, MD, PhD
*Head of Focused Ultrasound Ablation Oncology
Barcelona University Hospital*

symposium

3

Workshops & available white papers ▶

20

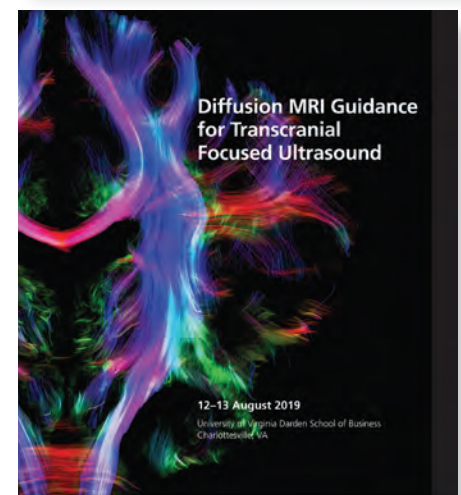
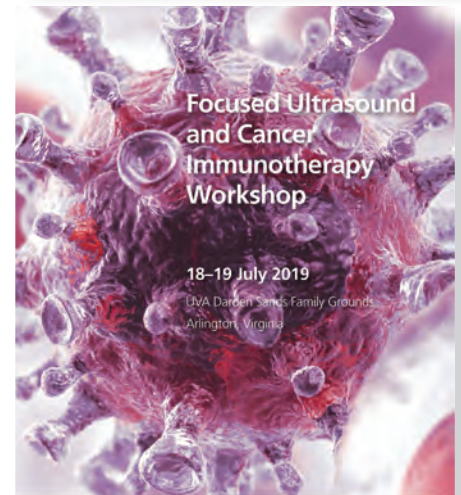
Sponsored meetings ▼

- MAR** Seattle Science Foundation: 10th Annual Brain Anatomy Residents & Fellows Course, *Seattle, WA*
- MAR** Winter School on Therapeutic Ultrasound, *Les Houches, France*
- APR** Society for Thermal Medicine (STM) 36th Annual Meeting, *St. Pete's Beach, FL*
- APR** Tom Tom Founders Festival, *Charlottesville, VA*
- MAY** VABIO – THRIVE biennial statewide conference, *Richmond, VA*
- JUN** 19th International Symposium of ISTU & 5th European Symposium of EUFUS, *Barcelona, Spain*
- JUN** Society for Image-Guided Neurointerventions (SIGN) 2019, *Baltimore, MD*
- JUL** American Association of Physicists in Medicine (AAPM) Annual Meeting, *San Antonio, Texas*
- JUL** VABIO – STEM Summer Camp Scholarship Fund
- AUG** American Veterinary Medicine Association (AVMA) Convention, *Washington, DC*
- SEP** 4th International Symposium on Hypothalamic Hamartoma, *Washington, DC*
- SEP** Focused Ultrasound Neuromodulation Symposium, *Oxford, UK*
- SEP** Focused Ultrasound in Neurosciences: Italian Workshop, *Palermo, Italy*
- SEP** Korean Society of Therapeutic Ultrasound (KSTU) 5th Annual Meeting, *Gyeongju City, Korea*
- SEP** VABIO – Women Building Bio, *Annandale, VA*
- OCT** IEEE IUS International Ultrasonics Symposium, *Glasgow, Scotland*
- NOV** Association of Clinical Research Professionals, Central Virginia Chapter, *Charlottesville, VA*
- NOV** Pancakes for Parkinson's, *Charlottesville, VA*
- NOV** RVA Brain Tumor 5K, *Richmond, VA*
- NOV** Tomtoberfest – Tom Tom Summit & Festival, *Charlottesville, VA*

Workshops & Meetings

The Foundation hosted **three workshops** to advance disease-specific and technical progress in the field: in February, experts in **pancreatic cancer and focused ultrasound** gathered to create a clinical roadmap for developing the technology to treat this deadly disease; in July, immunotherapy experts met to discuss the state of the field, determine next steps, and set priorities for continuing to explore using **focused ultrasound in combination with several types of immunotherapy**; and in August, an advanced imaging workshop explored the use of **tractography as a technique for focused ultrasound target visualization and treatment planning**.

The Foundation also sponsored **20 meetings** to increase focused ultrasound visibility around the world. ■



▶ The Foundation is passionate about bringing stakeholders together to share information, experience, and ideas; to rapidly achieve a critical mass of knowledge, effort, and results; and to fuel progress. Through collaboration we aim to stimulate innovation and intellectual capital, and accelerate the field—saving time, saving lives.

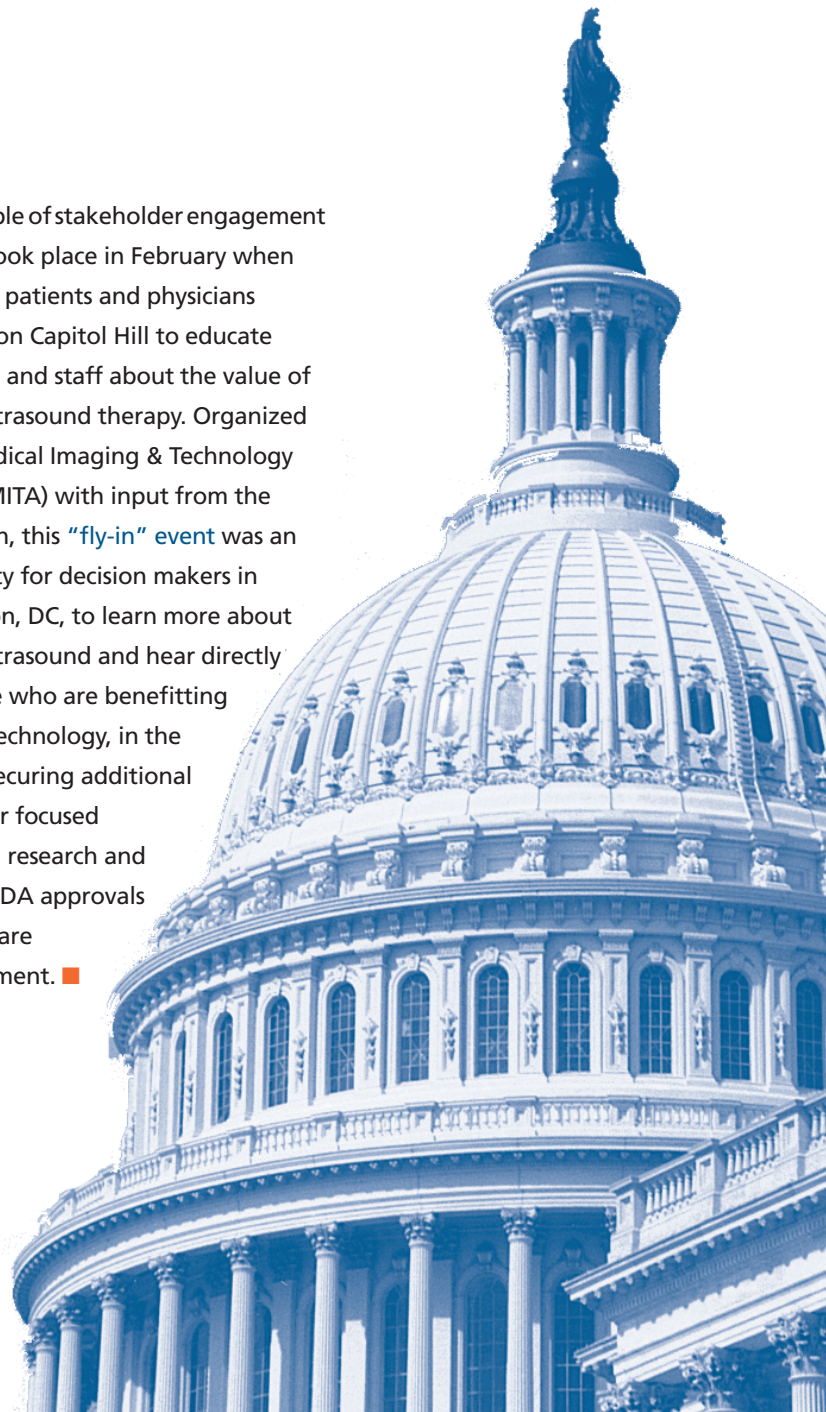
50+

Stakeholder Engagement

More than **50 educational and awareness-building** meetings were held in 2019 with various disease-specific foundations, other funding organizations, and advocacy groups. Additionally, important relationships were established with the Parker Institute for Cancer Immunotherapy (PICI) and the Advanced Medical Technology Association (AdvaMed).



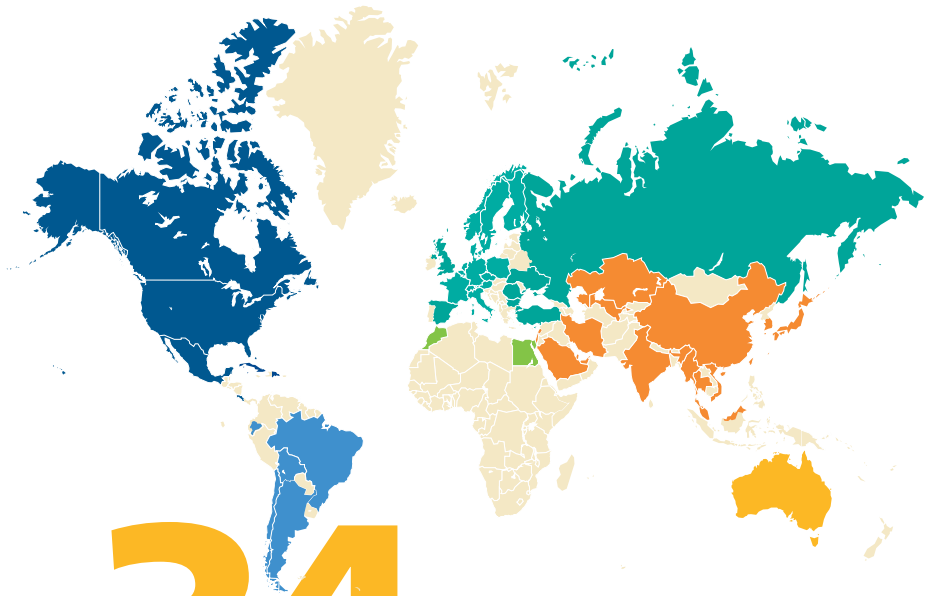
One example of stakeholder engagement in action took place in February when a group of patients and physicians convened on Capitol Hill to educate lawmakers and staff about the value of focused ultrasound therapy. Organized by the Medical Imaging & Technology Alliance (MITA) with input from the Foundation, this “fly-in” event was an opportunity for decision makers in Washington, DC, to learn more about focused ultrasound and hear directly from those who are benefitting from the technology, in the hopes of securing additional funding for focused ultrasound research and speeding FDA approvals and Medicare reimbursement. ■



State of the Field Report

For the past five years, the Foundation has surveyed stakeholders to gain a global perspective on the focused ultrasound field. The [2019 State of the Field Report](#) includes the most up-to-date data on patient treatments, regulatory approvals, research and treatment sites, and indications.

The report also identifies trends over time in commercialization, research priorities, and placement of focused ultrasound in scientific literature. New in 2018, the report includes in-depth analyses of focused ultrasound for veterinary medicine and investments in the field. ■



34

▲ **indications** treated at **660 sites** in
■ North America, ■ South America, ■ Europe, ■ Asia, ■ Africa and ■ Oceania.

62

indications investigated in clinical trials at **215 clinical** sites worldwide

77

indications researched in laboratories at **140 preclinical** sites worldwide

126

distinct indications were reported in various stages of investigation or commercial treatment at the end of 2018.



cultivating the next generation ◀

▶ Through worldwide fellowships and internship opportunities, and our Global Scholars Program, the Foundation remains dedicated to cultivating the next generation of focused ultrasound clinicians and scientists by fostering interest in focused ultrasound technology among new researchers.

32

Interns & Global Scholars

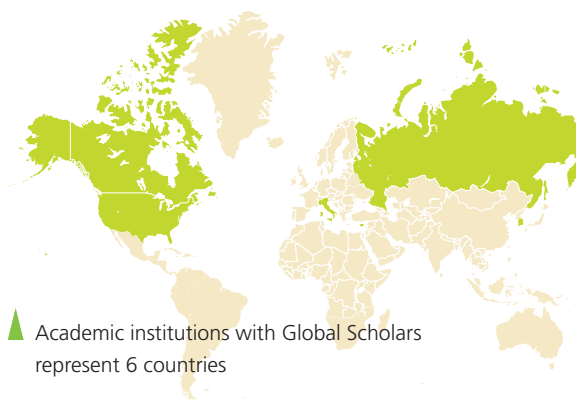
In 2019, **10 student interns** pursued a wide variety of projects, from assessing tractography-based brain ablations to automating ultrasound transducer characterization.

Additionally, the Foundation selected **22 global scholars** from 15 academic institutions, pairing young student investigators with leading authorities in focused ultrasound. ■

10 students from **5 institutions** joined the Foundation's internship program in 2019. ▼



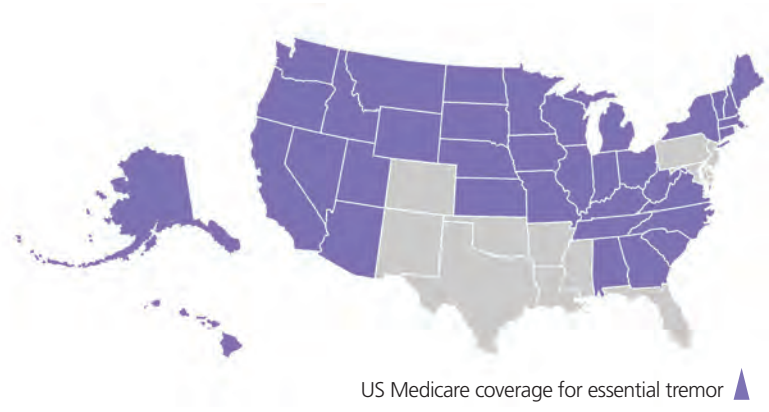
22 global scholars from **15** academic institutions ▼



▲ Academic institutions with Global Scholars represent 6 countries

- Albert Einstein College of Medicine [2]
- Columbia University
- Cyprus University of Technology
- Georgia Tech
- Instituto Besta
- Jeju National University
- Moscow State University [2]
- Ohio State University
- Stanford University
- University of Calgary [3]
- University of Chicago [2]
- University of Michigan
- University of Utah [3]
- Vanderbilt University
- Virginia Tech

 **The Foundation uses its position** as a trusted, independent, unbiased third party to form collaborations between industry and academia that facilitate achieving regulatory approval and reimbursement for new clinical applications of focused ultrasound.



Reimbursement

After years of slow progress and hurdles in securing reimbursement for focused ultrasound patients, 2019 saw significant insurance successes.

For patients seeking focused ultrasound treatment for **essential tremor**:

- US Medicare (Part B) expanded coverage to include 38 states.
- The University of Utah Health Plans (UUHP) became the 19th private insurer to cover the procedure.
- The Japanese Ministry of Health, Labour and Welfare began offering coverage in June.

For those interested in focused ultrasound for the **prostate**:

- The first reimbursement code specific to prostate cancer was issued to EDAP TMS by the American Medical Association.

Coverage is scheduled to go into effect in early 2021. ■

Regulatory

An important goal of the Foundation continues to be supporting our industry partners in their regulatory efforts, to collectively shorten the time needed for focused ultrasound to become a mainstream standard of care. To that end, the Foundation was pleased to strengthen our relationship with the FDA's Office of Science and Engineering Laboratories (OSEL) team this year, and to begin discussions on developing a collaboration and partnering pathway for the Foundation and the focused ultrasound community moving forward. ■

Indications with regulatory approvals by region 



▶ As part of our multifaceted communications and outreach programs, a core effort of the Foundation is to spread the word about focused ultrasound to audiences both nationally and abroad via events and speaking opportunities. A particular focus of these efforts this year has been our growing Asia Program.

Events & Speaking Opportunities

At our biennial awareness event in Charlottesville, Virginia, in May, more than 150 patients, donors, and community members heard about the latest breakthroughs in focused ultrasound and the work being done to confront several challenging diseases. Foundation staff and invited speakers gave updates on focused ultrasound treatment for Parkinson's and Alzheimer's diseases, pain, cancer, and our Veterinary Program—complete with a guest appearance by Mayo, a charming goldendoodle who received treatment for a soft tissue tumor.

Foundation staff also personally educated hundreds of others about the technology via nine awareness events, seven Friends and Family lunches, and 91 one-on-one meetings from Palm Beach, FL, to Abu Dhabi, UAE, and Asia. ■



1



2



3



4



5

Community Events

- 1 Neal Kassell, MD, *FUSF Chairman*, International Society for Therapeutic Ultrasound (ISTU)
- 2 Suzanne LeBlang, MD, *FUSF Director of Clinical Relationships*, speaking at the Blood-Brain Barrier Drug Delivery (B3DD) Summit
- 3 Jeff Elias, MD, *Neurosurgeon, UVA School of Medicine*, FUSF biennial awareness event
- 4 David Brenin, MD, *Chief of Breast Surgery, UVA*, FUSF biennial awareness event
- 5 Awareness event guests

Asia Program

China, Japan, Korea, and Taiwan continue to be hubs for research, commercial treatment, and manufacturing activity. In response to significant enthusiasm for focused ultrasound among philanthropists and investors in Asia, the Foundation worked to formalize our Asia strategy with the goal of cultivating relationships with these stakeholders, as well as with personnel at laboratories, clinical research and commercial treatment sites, and manufacturers.

During a [spring trip to Asia](#), Foundation staff met with friends, prospective donors and investors, and scientists and physicians. The team also visited the office of device manufacturer NaviFUS, met with staff at the Hong Kong Breast Cancer Foundation, and participated in media interviews. ■



Foundation members visited the office of device manufacturer NaviFUS in Taiwan. ▲

Foundation's Asia Ambassadors

To help execute our strategy, we are pleased to now have Foundation representatives based in:

- Korea
Dong-Guk Paeng, PhD
- Taiwan
Jessica Che-yi Chao
- Hong Kong
Bernice Szeto and Carolyn Yeh

Foundation Board member Syaru Shirley Lin, PhD, also provides invaluable leadership and support for Foundation efforts in the region from her bases in Asia and the US. ■

An Asia-based Foundation Subsidiary

The Foundation has begun the process of establishing an Asia-based subsidiary, **Focused Ultrasound Foundation Hong Kong**, which will accept philanthropic gifts from donors in Asia for the purpose of supporting research at Asian institutions.

We anticipate that Focused Ultrasound Foundation Hong Kong will be operational later in 2020. ■

aggregating & sharing knowledge ◀

▶ Once considered “medicine’s best kept secret,” focused ultrasound is becoming more widely known thanks in part to the Foundation working diligently to educate as many people as possible to increase awareness about the technology—via John Grisham’s *The Tumor*, our social media platforms, and more.

Communications Activity

Having reached the inflection point in the adoption curve for focused ultrasound, the field is exploding with news and information at a rapid pace. Media stories have transitioned from industry and scientific trades to mainstream consumer press, with millions around the world learning about the technology for the first time. ■



500,000

Facebook reach



400,000

Twitter impressions



120,000

LinkedIn impressions



1 million people

have been introduced to the potential of focused ultrasound through John Grisham’s *The Tumor*.

1,800

the number of times the audiobook *The Tumor* has been listened to since its release in February

Board member and author John Grisham’s ebook and audiobook can be accessed at:

- Amazon
- GooglePlay
- Nook by Barnes & Noble
- YouTube
- Foundation’s website: www.fusfoundation.org

▶ Additional communications vehicles raise awareness, including our bimonthly newsletter, focus features, and aggressive media outreach to print, television, and online outlets both near and far.



2x monthly

publication of the Foundation **newsletter** began in 2019

242 stories

including 23 profiles

11,500

total circulation of Foundation's **newsletter**, a surge of 12%

20,500

 subscribe to our **Stay-In-Touch List** and receive periodic updates about important milestones in the field

2 focus features

These in-depth summaries examine the use of focused ultrasound for **psychiatric disorders** and **chronic pain**.



Treatment investigations using focused ultrasound

Psychiatric disorders

- obsessive-compulsive disorder
- major depression
- addiction
- anorexia nervosa
- aggression and disruption
- Tourette's syndrome

Chronic pain

- arthritis
- painful bone tumors
- neuropathic pain
- stump neuroma
- cancer pain

510

media placements

Focused ultrasound featured in

AARP
WebMD
U.S. News and World Report
PBS NewsHour
Fortune
Scientific American
Discover Magazine
The Times (London)
Washington Post
Boston Globe
Los Angeles Times
Baltimore Sun
Philadelphia Tribune
Globe and Mail
The Hill
Physics Today
Brain & Life
Psychology Today
Physics World

▶ Thousands worldwide are educated about the technology each year via the Foundation’s detailed website—fusfoundation.org—and our popular webinar program featuring experts from around the globe.

Refreshed Website Visitors Skyrocket

Visitors to the Foundation’s website in 2019 likely noticed a new look and feel to our online presence. With more than **1,800 pages of content**, the site’s refreshed format better highlights the people essential to our mission of advancing focused ultrasound: the patients, experts, donors, and industry leaders. We have also seen a 10 percent increase in traffic to the site this past year (nearly 320,000 unique sessions), with a major uptick in web visits in the fourth quarter. ■



Webinars Experts Reach Hundreds

The Foundation’s webinar program allows experts in the field to provide current information about emerging areas of interest or promising research. In 2019 we hosted two webinars: SonaCare Medical’s Narendra Sanghvi discussed **“High Intensity Focused Ultrasound: Past & Present”** in February, and Renana Eitan, MD, of Brigham & Women’s Hospital and Harvard Medical School, led a webinar in October entitled, **“Back to the Future: Focused Ultrasound for Psychiatric Disorders.”** ■



Top to bottom

Back to the Future: Focused Ultrasound for Psychiatric Disorders

Renana Eitan, MD, *Brigham & Women’s Hospital, Harvard Medical School*

High Intensity Focused Ultrasound: Past & Present

Narendra Sanghvi, *SonaCare Medical*

▶ More than 60,000 patients worldwide were treated with focused ultrasound in 2019, and the expectation is that, by 2035, one million patients will be treated each year. Here is one young mother's life-changing story.

Patient's life transformed by focused ultrasound

Featured on
"The Doctors"

Patient Spotlight Essential Tremor

Jodi is a young Wisconsin mother of three who suffered from the symptoms of essential tremor (ET) for more than half her life. ET is a neurological disorder that can cause debilitating, involuntary shaking and is the most common movement disorder; it affects as many as 10 million Americans with impaired ability to eat, shave, write, perform household activities, and/or function in the workplace.

For years, Jodi tried to manage her progressing tremors with medications that either were not effective or caused bothersome side effects. As a single mother, she was also unwilling to accept

the risks associated with invasive surgical options like deep brain stimulation.

Smart and determined, Jodi continuously researched treatment alternatives and eventually learned about focused ultrasound—because she was a subscriber to the Foundation's email list! She was treated at Spering Medical Group in Delray Beach, Florida, one of 13 treatment centers in the US.

Jodi was thrilled when her treatment was successful, though her recovery took some time. She is now eager to share her story and advocate on behalf of ET patients everywhere, to ensure they know about focused ultrasound. Says Jodi, "I hope my story is able to give comfort and hope to those who continue to struggle. I want to help people feel that they're not alone. I am able to cuddle my children now. I can French braid by daughter's hair and help put her make-up on for cheerleading competitions. Everything from putting on nail polish to pouring a glass of milk is so much easier now!" ■

▶ Jodi's story as seen on the TV show, "The Doctors," is available on the Foundation's website.



▶ **The Foundation's FUS Partners Program** fosters relationships among community members seeking assistance with focused ultrasound-related activities, including financing, partnerships, technology transfer, and academic research opportunities. The Foundation recognizes these activities as vital to the successful widespread adoption of focused ultrasound.

FUS Partners

The success of the commercial sector has become a gating factor—and enabler—of progress towards FUS becoming a mainstream standard of care. The **FUS Partners Program** was launched in 2018 to formalize the strategic outreach to industry already underway.

In addition to connecting dozens of FUS industry stakeholders for financing, joint ventures, or technology transfer, a highlight of the year included the launch of a series of brainstorming sessions about how the Foundation can effectively engage the private sector in the success of commercial organizations that manufacture and distribute the technology. The program also expanded its reach to Asia and has begun systematically building relationships with significant corporate players in the space, including channel partners, customers, and acquirers of emerging FUS companies. ■

Focused Ultrasound Device Manufacturers

50

manufacturers worldwide

14

introduced to investors
by the Foundation

7

connected to academic
institutions for technology transfer

\$112M

raised by 6 manufacturers
in 2019

\$770M

invested in manufacturers
since 2010

Fundraising Goals Exceeded

The Foundation exceeded our total 2019 fundraising goal of \$11 million, raising \$8.8 million in cash and \$3.3 million in pledges. Our 2020 goal is to raise \$10M in cash and \$5M in pledges.

New Match for 2020

In Summer 2019, an anonymous donor came forward with a challenge gift of \$2 million per year over the next three years, to be matched one-to-one. Thanks to our donors, the Foundation met this challenge for 2019. We hope you will consider a gift in 2020, appreciating that its impact will be multiplied. Your support will help ensure we receive this generous \$2 million matching gift for 2020. ■

Foundation Organization Strengthened

The Foundation's team is stronger than ever, and we recently welcomed two new hires: Advisor [Philip Keevil](#) (not pictured) and Chief Relationship Officer [Ann Taylor](#). New Council members include [Allan C. Stam](#), former Dean of the Frank Batten School of Leadership and Public Policy at the University of Virginia, and [Deborah Caldwell](#), recently named CEO and Publisher at Religion News Foundation, previously with Bank of America, Time Inc., CNBC, and Reader's Digest Association.

The election of global economy expert [Syaru Shirley Lin, PhD](#), to our Board of Directors led to her taking an invaluable leadership role in our 2019 efforts to formalize our approach to Asia. As our global outreach expands, we have also added Global Ambassadors [Thomas Andreae](#) (Europe) and [Jessica Che-yi Chao](#) (Asia) in an effort to continue to raise awareness and connect manufacturers, researchers, and funders. ■



Above, top to bottom
Ann Taylor, Allan C. Stam, and Deborah Caldwell

Right, top to bottom
Shirley Lin, Thomas Andreae, and Jessica Chao

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media placements

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1st

staged bilateral treatments for
essential tremor and
Parkinson's disease

18

active research projects for
immunotherapy

14

global awareness events



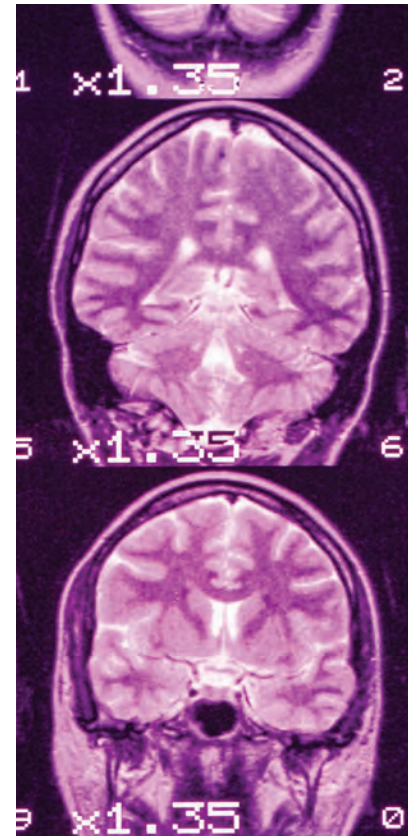
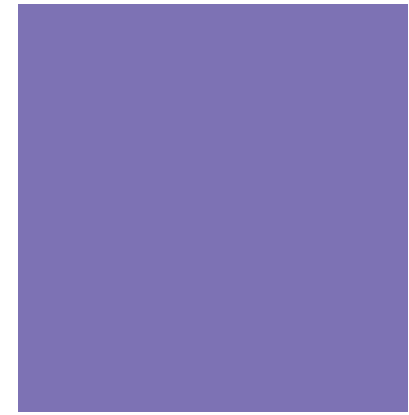
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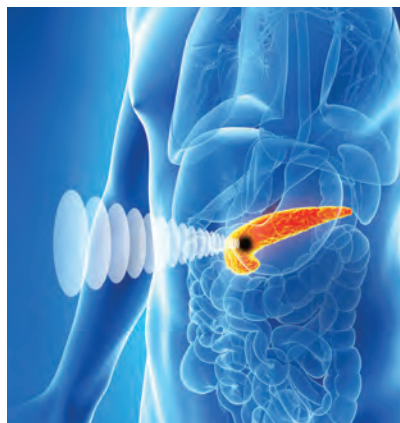
50

device manufacturers



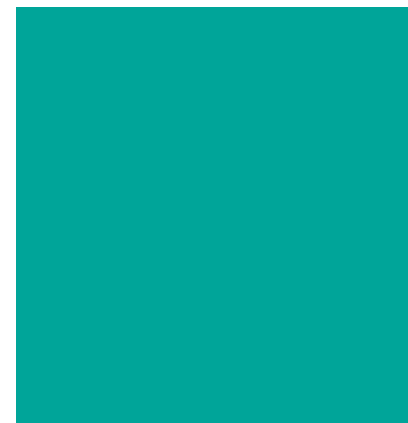
1st

patient enrolled in
international, first-of-its-kind
pancreatic cancer registry



\$8:\$1

ratio of
follow-on funding
for completed projects





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