VERISTAT

DECENTRALIZED TRIAL SOLUTIONS FOR COMPLEX CLINICAL TRIALS

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ENDPOINTS WEBINAR ON 18 JANUARY 2023

AGENDA

- Veristat Introduction
- Complex Clinical Trials – Challenges
- Integrated DCT Solutions
- Challenges of Natural History studies for pediatric rare disease
  - Patient participation
  - Data collection
- The CAN*inform* study: Decentralized strategies for a unique study design
- Pivoting to a virtual & in-person hybrid model during COVID-19

OUR MISSION AND VISION AT VERISTAT

At Veristat, our mission is to help biopharmaceutical innovators navigate the complex process of bringing novel therapies to patients utilizing scientific principle, bold thinking, and insight.

We strive to be the sought-after partner for small and mid-size sponsors, empowering them to bring their life-changing medical therapies to patients everywhere, quickly and safely.

MORE LIFE-CHANGING THERAPIES TO PATIENTS EVERYWHERE

160+ Marketing Applications Prepared | 82 Approvals | 55 Rare Disease

1996 — 2010

13 APPROVALS | 5 RARE DISEASE

5 Oncology: 2 BLA, 2 NDA, 1 sNDA
4 Infectious Disease: 3 BLA, 1 sNDA
2 HIV/AIDS: 1 BLA, 1 NDA
1 Cardiology: 1 NDA
1 Pain Mgmt..: 1 NDA

2011 — 2015

18 APPROVALS | 12 RARE DISEASE

9 Oncology: 1 MAA, 4 NDA, 4 sNDA
5 Endocrine/Metabolic: 2 BLA, 2 MAA, 1 NDA
2 Infectious Disease: 1 BLA, 1 NDA
1 Neurology: 1 NDA
1 Pain Mgmt.: 1 NDA

2016 — 2020

37 APPROVALS | 28 RARE DISEASE

17 Oncology: 3 BLA, 3 MAA, 6 NDA, 1 jNDA, 3 sNDA, 1 NDS
8 Endocrine/Metabolic: 3 MAA, 2 NDA, 3 jNDA
4 Infectious Disease: 1 MAA, 2 NDA, 1 sNDA
3 Hepatology: 1 BLA, 1 NDA, 1 jNDA
2 Hematology: 1 MAA, 1 NDA
2 Neurology: 2 NDA
1 Women's Health: 1 NDA

2021 — 2022

14 APPROVALS | 10 RARE DISEASE

2 Oncology: 1 NDA, 1 sNDA
2 Hepatology: 1 MAA, 1 NDA
4 Endo/Metabolic: 2 NDA, 2 BLA,
1 Cardiology: 1 BLA
2 Immunology: 2 NDA
2 Neurology: 1 NDA, 1sNDA
1 Psychiatry: 1 NDA

1994
Veristat founded by **John and Barbara Balser**

2007
Becomes a registered **CDISC solutions provider**

2011
Adds **Clinical Operations** services

2013
Patrick Flanagan joins as CEO
VDP invests in Veristat
Opens **Montreal** office

2016
Expands into Europe acquisition of **Spero Oncology**
Launches **Strategic Consulting** group
Opens **North Carolina** office

2018
Acquires **Topstone** strengthening **Clinical Operations**
Adds **Regulatory** Service offering

2019
Expands **operations into Asia** with Taipei Office opening
Strengthens Regulatory Affairs talent and customer base with **Catalyst** acquisition

2020
TCTC acquisition
Expands into **Safety/PVG** with acquisition of **Certus PV**

2021
SQN Clinical and **DDR acquisitions**
WindRose Health invests in Veristat

2022
SFL acquisition

2025

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EXPERT SOLUTIONS ACROSS ENTIRE DEVELOPMENT LIFECYCLE

	PRE-CLINICAL	PHASE I-III	REGISTRATION	POST-MARKET
Strategic Consulting	Bold thinking and science-based insights to plan your development program – from IND/CTA to NDA/MAA and beyond			
Regulatory Affairs	Regulatory expertise that delivers the roadmap, gap analysis, agency interactions and registration/maintenance support to achieve success			
Biometrics		Data and Statistical experts to plan the collection, analyses, standardization, and reporting of your clinical trial data		
Clinical Operations/ Medical Affairs		Integrated clinical trial conduct solutions including feasibility, site selection, patient recruitment & retention, site management, site monitoring, patient safety services and **a flexible virtual/decentralized trials approach**		
Medical Writing		Scientific-minded medical writers to develop protocols, clinical study reports, all modules of regulatory dossiers for global regulatory authorities, as well as scientific manuscripts to disseminate scientific and clinical data		
Pharmacovigilance			Safety and PVG specialists focused on managing the post-market safety risks of your approved medical therapies	
Market Solutions/ Compliance			Market Access, Reimbursement, Healthcare Compliance, Public Affairs and Quality Assurance expertise to ensure the commercial success of your product	

VERISTAT

GLOBAL REACH & LOCAL KNOWLEDGE ENSURES CLIENT SUCCESS

750+ Associates Across **3** Continents

EUROPE OFFICE LOCATIONS

- **UK -** Pickmere
- **Spain -** Barcelona
- **Switzerland –** Basel

Additionally, have established legal entities in Austria, Ireland, and Germany.

ASIA OFFICE LOCATION

- **Taiwan -** Taipei

NORTH AMERICA OFFICES

- **CANADA -** Toronto
- **USA -** Massachusetts
- **USA -** North Carolina

Our teams work both in-house and remotely throughout North America, Europe and Asia.

The locations listed above only represents our physical office locations.
In addition, we have legal entities, site networks, partnerships, and contractors who work in other regions of the world.

VERISTAT

RECENT EXPERIENCE IN COMPLEX STUDIES

Rare Diseases

In the past 5 years -

- Supported more than **400** rare disease projects
- Prepared nearly **60 Marketing Applications** for rare disease therapies

Cell & Gene

In the past 5 years -

- Supported more than **100 Cell & Gene** therapy projects.
- Prepared 12 marketing applications (BLAs and MAAs)

Oncology

In the past 5 years-

- Supported more than **350 oncology** projects
- Prepared more than **30 marketing applications** for cancer therapies

DEFINING DCTS?

At Veristat,

Decentralized Clinical Trials are **patient enabling strategies and solutions**

Integrated DCT Solutions for Complex Clinical Studies

Customized for your trial by one team

Veristat offers a **customized virtual approach** to accommodate patient needs and program objectives – **fully integrated** into our day-to-day operations across all solutions.

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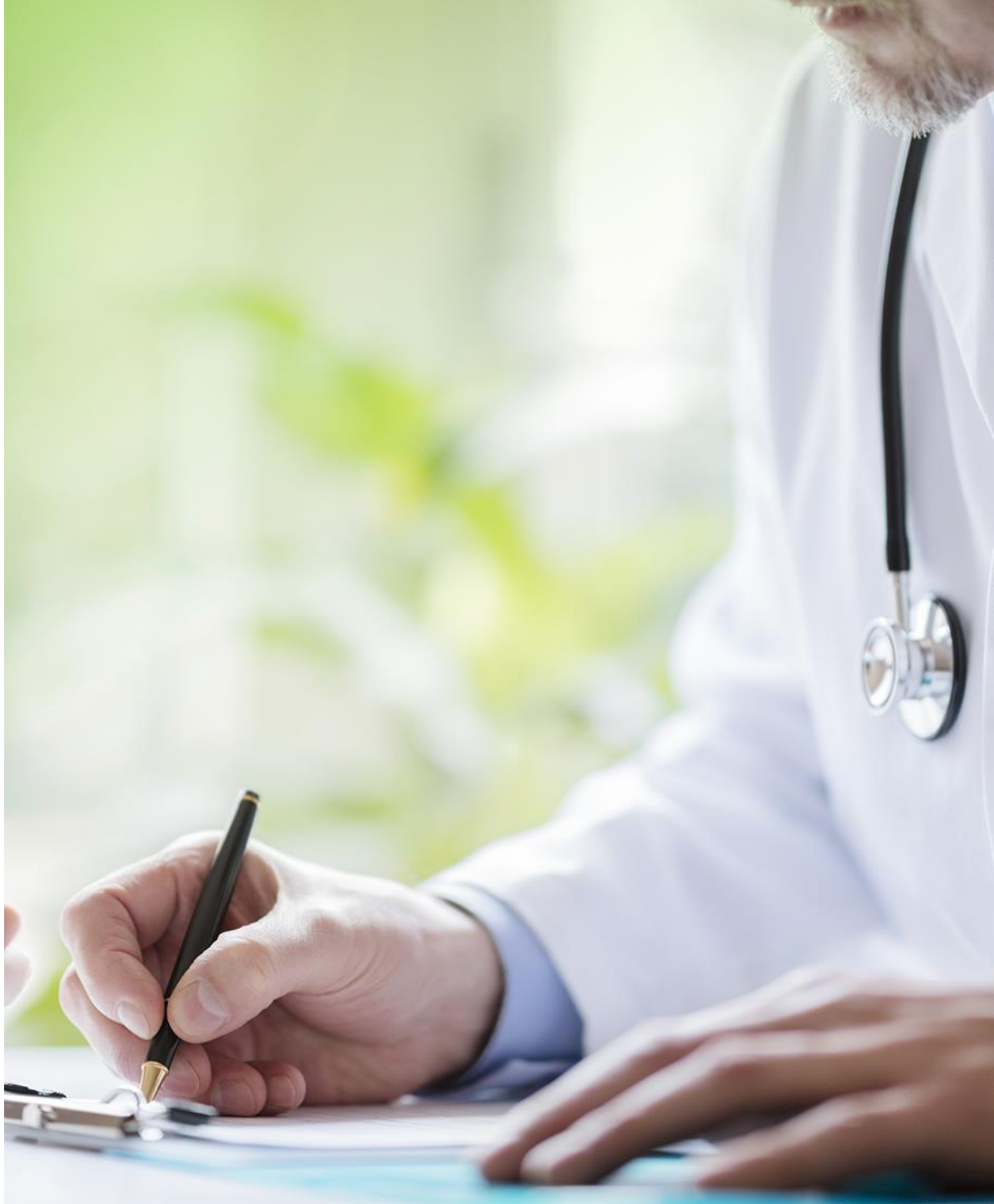
CHALLENGES WITH RARE/ULTRA RARE DISEASE RESEARCH

- Small sample sizes
- Limited knowledge of rate of disease progression
- Lack of medical experts/sites around the world
- Limited information/lack of consensus regarding standard of care
- Access to patients/patient limitations
- Difficulty identifying clinical outcomes to measure
- Lack of control or comparator data
- No disease-specific endpoint validation



REAL WORLD EXAMPLE

Canavan Disease Natural History Study

ClinicalTrials.gov Identifier: NCT04126005

CANAVAN DISEASE

A serious and ultra-rare autosomal recessive leukodystrophy

- Results in progressive neurological decline, halting and regression of developmental milestones & ultimately death, typically in first decade of life:
  - Children have normal development up until 3-5 months of age
  - Develop the Canavan triad of:
    - Hypotonia (floppiness)
    - Macrocephaly (Large head size)
    - Head Lag
  - Optic atrophy
  - Developmental delay, especially motor function
  - Abnormal eye movements: cannot fix or follow
  - Seizures
  - Feeding difficulties, inability to swallow
- Treatment is supportive
- Not much literature on Canavan disease, progression
- Number of Specialists

CHALLENGES FOR CAREGIVERS OF CANAVAN PATIENTS

Day-to-Day Care

- Specialized feeding chairs or feeding tubes
- Limited mobility requires wheelchairs, specialized seats
- Specialist care, if available, requires numerous clinic visits
- Seizure management
- Additional caregivers – night nurses, respite care

Travel

- Larger vehicles
- Public transport, including airplanes – more space and legroom needed
- Multiple caregivers may need to travel

THE CAN*INFORM* CANAVAN NATURAL HISTORY STUDY

CLINICALTRIALS.GOV IDENTIFIER: NCT04126005

- Retrospective/Prospective NH Study of Canavan Disease
- 3 Sites in United States and Germany
- 5 Cohorts based on age
- Predecessor Study for a Phase I/II Gene Therapy Interventional Trial

NH STUDY DEVELOPMENT

Decentralized Design

- **Central-Site Model** - Global population and specialist locations necessitate a small number of sites
- **Visit Structure**
  - Variable visit intensity based on age – burden of visits lessens with age
  - Decoupling of “clinic” visits and “rater” visits
    - Raters travel to patient homes for motor function assessments, visits occur more frequently than clinic
- **Flexibility for Caregivers**
  - Flexible visit windows
  - Option to participate in prospective visits in-person, remotely, or not at all
  - Home health nursing planned

NH STUDY DEVELOPMENT

Decentralized Design, cont.

- **Call Center**
- **Assistance with Medical Record Collection**
  - Feeder Protocol
  - Vendor supporting collection from multiple hospitals, clinics, providers
  - Final product is an organized and searchable PDF
  - Ownership of Medical Record with Caregiver
- **Data Flow**
  - EDC AND customized electronic Clinical Outcomes Assessments (eCOA) for direct entry of Rater data, iPads for motor function raters
  - Centralized medical record extraction and scoring for CDC and CDRS information

OPERATIONAL CHALLENGES | MEDICAL RECORD COLLECTION

CHALLENGES	SOLUTIONS
Inconsistency of medical records (Multiple providers, technological advances, medical records extend back into the 1960's)	› Unique partnership with specialized medical records retrieval service to collect, compile & organize medical records on behalf of patients › Engagement with caregivers/families to collect data not available to retrieval service
Strict Data Privacy Regulations (GDPR, HIPAA, etc.)	› Caregivers collected own medical records from clinical centers in Europe › Combined approach outside of Europe › Collaborate with IRBs/ECs & Data privacy offices to ensure compliance

OPERATIONAL CHALLENGES | MANAGING THE DATA

CHALLENGES	SOLUTIONS
Vast amounts of retrospective data collected – challenge to estimate data timelines	› Required enormous effort to go through data on a clinical & data collection level › Timeline considerations implemented depending on size of data file
Varied data required consistent review and interpretation	› Utilized a formal Data Extraction Plan › Data extraction specialists are experts in early developmental assessment and received extensive training on required data › Cross-checked by a second extraction specialist › Clinicians provided input to ensure crucial data were not missed

OPERATIONAL CHALLENGES | DATA ENTRY AND STUDY DOCS

CHALLENGES	SOLUTIONS
 **Volume of Data Entry** (Size of medical record and retrospective data files vary by participant, numerous queries for missing fields, assessing progress with monitoring)	› Financial support for additional site staff to assist with study tasks, including data entry › Veristat team member entering data › Bulk closure of queries by Data Management staff
 **Document Heavy** › Many translated documents in many languages due to geographic spread of participants	› Having a team with specific task assignment to accomplish document development › Having a team of experts knowledgeable on various country specific requirements

THE PIVOT: TRANSITION FROM IN-PERSON TO VIRTUAL

OPERATIONAL CHALLENGES | GLOBAL PANDEMIC

CHALLENGES

COVID-19 pandemic hits…

Study designed to assess patients in-person in their homes and in the clinic – shift to remote visits

SOLUTIONS

- Identified scales that could be performed remotely AND covered same domains of original scales
- Worked with partner specializing in neurological rater scales & assessments to build remote assessments process & train caregivers
- Introduced pilot study of remote assessments
- Rigorous and successful validation of remote assessment method - deployed in main study
- Ongoing QC

OPERATIONAL CHALLENGES | REMOTE VISITS

CHALLENGES

Logistics of the remote Rater visit

(Engagement of the caregiver, information flow, technology and materials identification and procurement)

SOLUTIONS

- Conceptualized "Toy Kit" for family
- Engaged vendor to source, procure, and store toy kit supplies
- Researched and implemented the right technological solutions
  - Online meeting platform
  - iPad, tripod, and mount
- Developed documents for Caregivers
- Caregiver focused ePRO (ex. PedsQoL) in EDC
- Facilitated close coordination between vendors and SCs, SCs and Raters

LESSONS LEARNED

LEARNINGS FROM NATURAL HISTORY STUDY - SO FAR

Benefits of a Decentralized Strategy

- Larger # of patients enrolled than expected
- Continuation of data collection during COVID-19 pandemic and through other challenges that the families encounter
- Only one discontinuation
- Combining remote and on-site monitoring is a beneficial means for both sites and sponsors from a time and cost perspective

Not All Decentralized Solutions are Appropriate for a Rare Disease study

- Home visits – home health nursing
- Return to in-person clinic and home rater visits
- Data privacy scrutiny in treatment trial

QUESTIONS

MORE DETAILED INFORMATION ON DECENTRALIZED TRIALS

Watch the Webinar Replay Video on the Full Canavan Disease Story

› https://www.veristat.com/library/navigating-the-patient-experience-when-pivoting-to-a-virtual-model-mid-study-recording

Visit Veristat.com to learn about:

Making Decentralized Clinical Trials a Successful Reality for Complex Studies

› https://www.veristat.com/decentralizedclinicaltrials

Understanding Decentralized Trials

› https://www.veristat.com/defining-decentralized-clinical-trials-audio-infographic

Join Us at an Upcoming webinar on Jan 18, 2023

Putting the Patient First with Decentralized Trial Solutions

› https://www.veristat.com/events/endpoints_webinar-decentralized_trials_2023

Listen to Our Podcast Advancing Revolutionary Therapies

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Aspa a bridgebio company
https://aspatx.com/

bridgebio
https://bridgebio.com/

TELEGENISYS Service Excellence
https://www.telegenisys.com

VALIS BIOSCIENCE
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Canavan Foundation

canavan

NTSAD

Patients & Caregivers