NEUROPACE

JPM Healthcare Conference Presentation

January 2025

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NEUROPACE MISSION

Transform the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures.

NeuroPace Investment Highlights

Large, underpenetrated market	**>$55B total U.S. addressable market; >$2B annual core market opportunity within Comprehensive Epilepsy Centers with additional upside from expanding outside Level 4 centers**
Unique technology	Closed loop, brain-responsive neuromodulation system
Compelling clinical evidence	Differentiated outcomes that continue to improve over time; additional clinical data underway in Post-approval study (PAS) and in idiopathic generalized, pediatric focal, and LGS populations
Operating execution	Focused on revenue, gross margin and operating expense management; 2024 revenue growth 20%+
Healthy balance sheet	Sufficient capital to support key operating priorities through 2026
Future growth opportunities	Market expansion outside of Level 4 centers; indication expansion into the generalized epilepsy and pediatric focal patient populations

[1]U.S., Center for Disease Control, August 10, 2017; Chen, Z., et al., JAMA Neurology, 2018; Hauser, et al., 1993. Incidence of Epilepsy and Unprovoked Seizures in Rochester, Minnesota: 1935-1984. Epilepsia 34, 453–458; DEFINITIVE HEALTHCARE CLAIMS DATA, https://patientfinder.defhc.com as of 12/31/20

Management Team*

Joel Becker

Chief Executive Officer

Rebecca Kuhn

Chief Financial Officer

Martha Morrell, MD

Chief Medical Officer

Kelley Nicholas

Vice President, Sales

*Recent additions to leadership team in Research and Development, Marketing and Human Resources

Previous Experience

St. Jude Medical · Integer · HeartPort · Hologic · ThermoFisher Scientific · Columbia University Department of Neurology · Medtronic · Stanford Medicine · NeuroPace

Drug-Resistant Epilepsy (DRE) is a Devastating, Highly Undertreated Disease with Significant Unmet Need

Epilepsy is a disorder in which abnormal electrical activity in the brain causes seizures

4th most common neurological disorder in the U.S.[1]

~$28B direct medical costs in the U.S.[1]

2-3X higher unemployment among epilepsy patients[2]

Drug therapy is unable to control seizures for 1 in 3 patients[3,4]

[1]Examining the Economic Impact and Implications of Epilepsy, AJMC, February 13, 2020. [2]Epilepsy Across the Spectrum 12.4.26: https://www.ncbi.nlm.nih.gov/books/NBK100603/ [3]U.S. Center for Disease Control, August 10, 2017. [4]Chen, Z., et al., JAMA Neurology, 2017.

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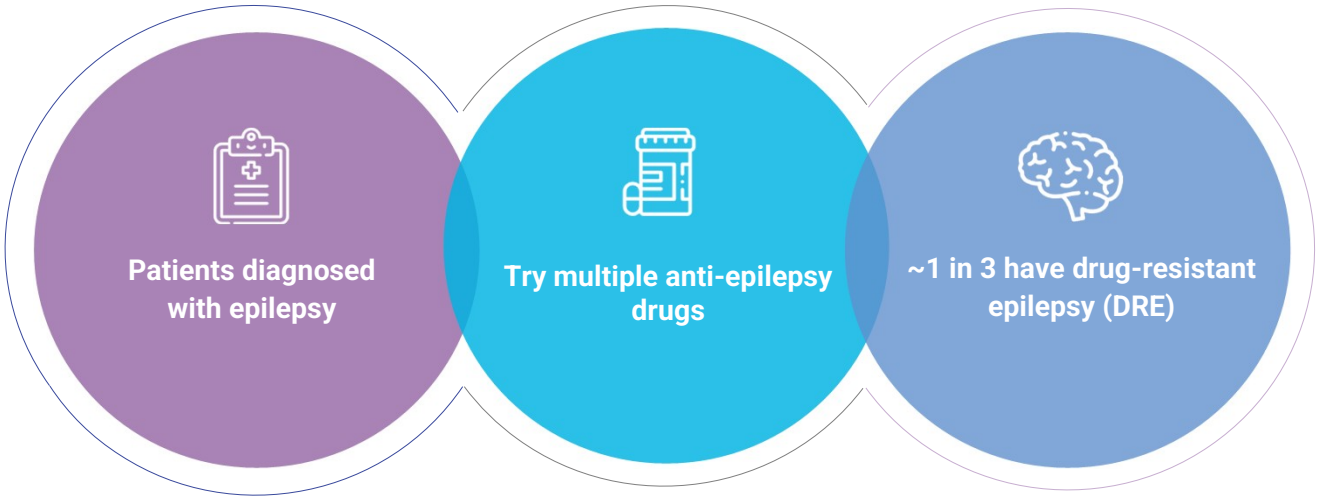
U.S. Prevalence: 1/3 of Epilepsy Patients are Drug Refractory

Drug-resistant epilepsy (DRE) defined as a patient failing to achieve sustained seizure freedom after trying two antiseizure medications[3]

DIAGNOSIS & FIRST LINE TREATMENT



3.4M People in the U.S.[1]

1.2M People in the U.S.[2]

DRE patients who may not appear to be appropriate candidates for epilepsy surgery should still be referred to a tertiary epilepsy center to evaluate potential other interventions[3]

[1]U.S. Center for Disease Control, August 10, 2017. [2]Chen, Z., et al., JAMA Neurology, 2018. [3]Jehi L, Jette N, Kwon C-S, Josephson CB, Burneo JG, Cendes F, Timing of referral to evaluate for epilepsy surgery: Expert Consensus Recommendations from the Surgical Therapies Commission of the International League Against Epilepsy. Epilepsia. 2022;00:1–16. https:// doi.org/10.1111/epi.17350.

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RNS System - Novel Therapy to Address Unmet Need

Brain-Responsive Neuromodulation System Provides Unique Window to the Brain

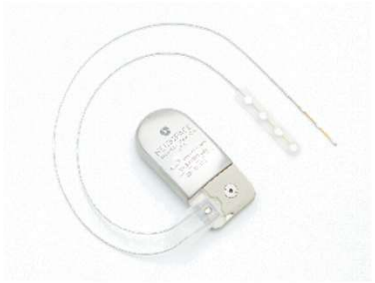
Monitors
Brain activity continuously

Recognizes & Responds
To patient-specific seizure patterns

Records
Ongoing iEEG data for physicians to review

Epilepsy Treatment that is

- Personalized
- Targeted
- Data-driven



Implantable Device with nearly 11-year battery

Physician Programmer

Patient Remote Monitor

Patient Data Management System

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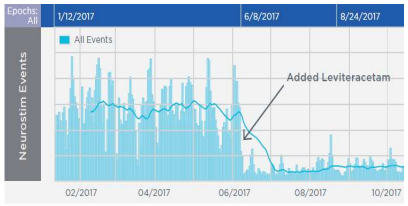
RNS System Data

Allows Physicians to Actively Manage and Customize Ongoing Patient Care

Identify Seizure Triggers

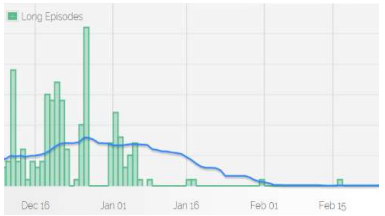
See Effects of Therapy Changes

Therapy change



Inform Future Surgeries

Monitor Patient Progress



Electrographic seizures

Reveal Seizure Cycles

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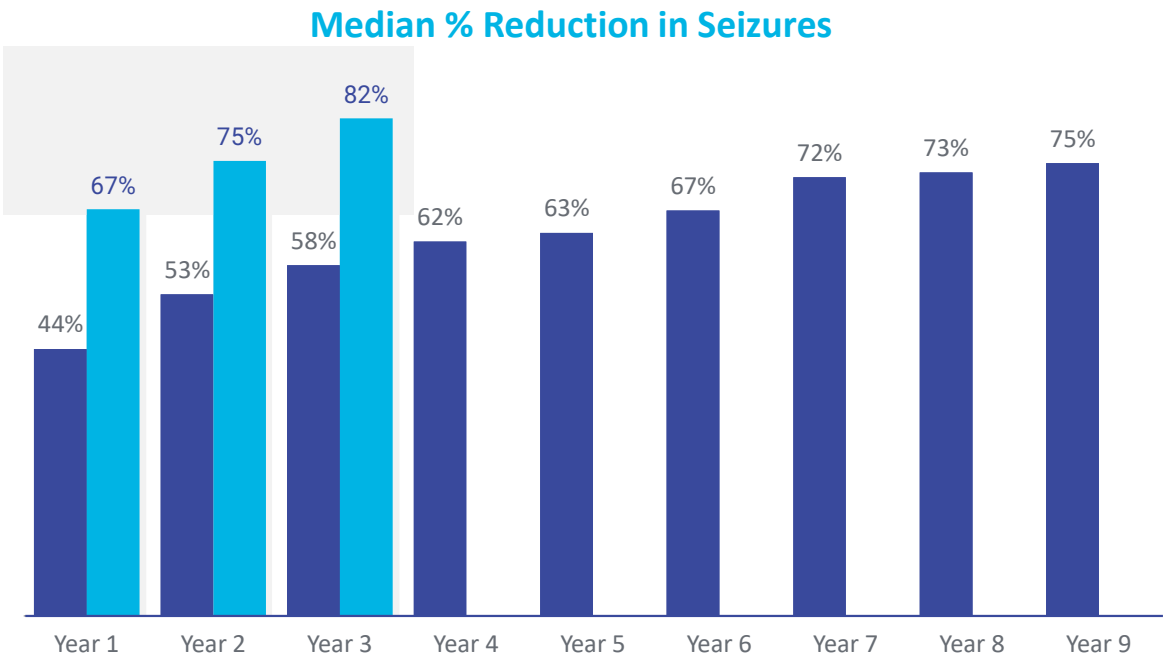
Impressive Seizure Reductions Improve Over Time



Original FDA Study Results:[1,2]

- Statistically greater seizure reduction than sham therapy at 5 months
- 75% median seizure reduction at 9 years
- 28% of patients achieved ≥ 6 months of seizure freedom

Real World & FDA Post Approval Study Results:

- 67% median seizure reduction at 1 year[3,4]
- 75% median seizure reduction @ 2 years[4]
- 82% median seizure reduction at 3+ years[4]
- ~1 in 3 patients with > 90% reduction in seizures[4]

★ *PAS 3-year follow-up data submitted to FDA*

Improvements shown in:

Cognitive Function | Quality of Life | Mental Health | SUDEP

[1]Morrell, M, et al. Neurology, 2011. [2]Nair, D, et al., Neurology, 2020 and Heck et al., Epilepsia , 2014. [3]Szaflarski, JP, et al., Presented at American Epilepsy Society, 2019. [4]Razavi, B, et al., Epilepsia, 2020.

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Alternative Treatment Options Have Significant Risks and Side Effects

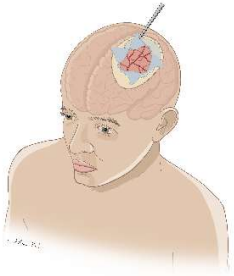
Epilepsy Surgery

Irreversible destructive procedure

Carries neurocognitive risks: impaired memory, reduced naming ability, and loss of some part of their visual field

~20% of patients are ideal candidates[1]

Resection



Laser Ablation

Neuromodulation Competitors

Fixed anatomical target

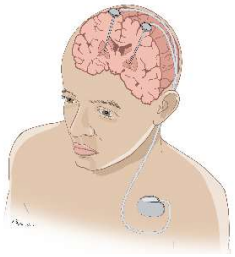
Not responsive to brain activity

Lengthy stimulation cycles result in side effects: depression, memory impairment, and sleep disruption

No detailed iEEG recordings or event trending

VNS

DBS



RNS Therapy

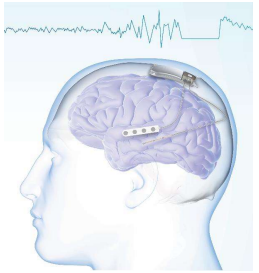
Therapy at seizure source only when needed

Responds to patient specific abnormal events

No stimulation related side effects

Reduced risk of SUDEP

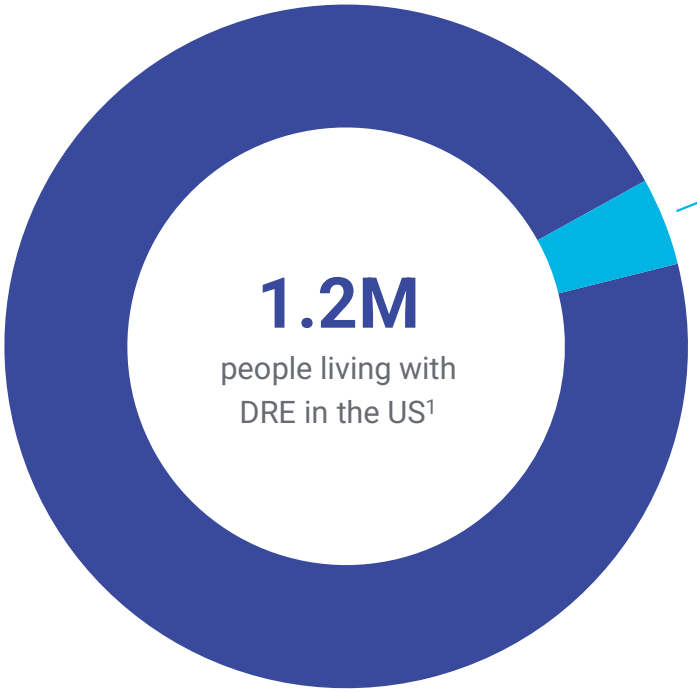
Detailed iEEG recordings and event trending



[1]Schiltz, et al., Temporal trends in pre-surgical evaluations and epilepsy surgery in the U.S. from 1998 to 2009, Epilepsy Research, Volume 103, Issues 2–3,2013,Pages 270-278; Dugan, et al., Derivation and initial validation of a surgical grading scale for the preliminary evaluation of adult patients with drug-resistant focal epilepsy. Epilepsia, (2017) 58: 792-800.

Closing the Treatment Gap

CEC Growth Opportunity



50K DRE patients admitted to CECs annually[2]

>$2B addressable market today with potential to increase as more patients are moved through specialist care

MACRO TRENDS

- Number of CECs increased from 151 in 2012 to 256 in 2019[3]
- 150% increase in number of epileptologists per capita from 2012 to 2019[3]
- Epilepsy monitoring unit (EMU) admissions increased 5% per year from 2016 to 2019[3]
- Patient advocacy groups advocating for increased care
- ILAE treatment recommendations for DRE encourage more/earlier evaluation of interventional treatment[4]
- Improved diagnostics and therapies lowering barriers for patients

[1]Chen, Z., et al., JAMA Neurology, 2017. [2]Definitive Healthcare Claims Database for Epilepsy Patients who received Inpatient VEEG in 2019 [3]Ostendorf, et al, Epilepsia, 2022 [4]Jehi L, Jette N, Kwon C-S, Josephson CB, Burneo JG, Cendes F, Timing of referral to evaluate for epilepsy surgery: Expert Consensus Recommendations from the Surgical Therapies Commission of the International League Against Epilepsy. Epilepsia. 2022;00:1–16. https:// doi.org/10.1111/epi.17350

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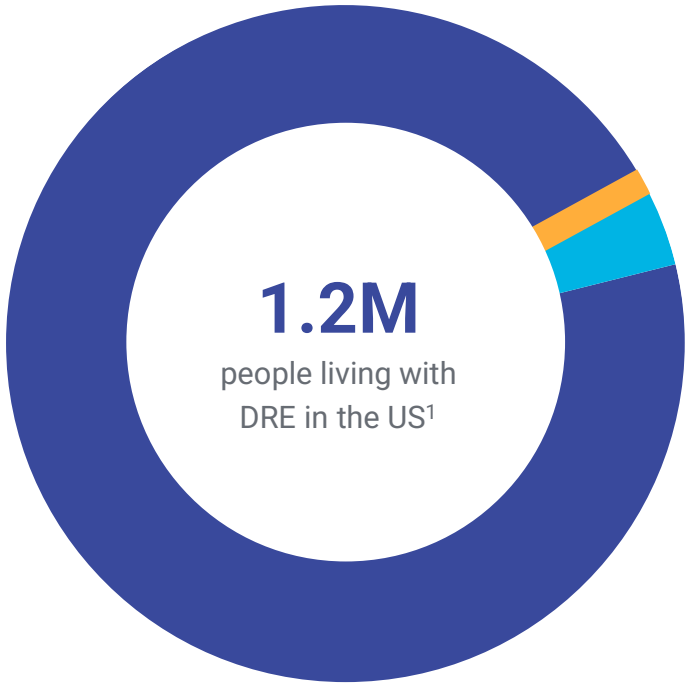
Current Patient Population Focus



6.5K
DRE patients get treatment beyond drugs annually[3]

50K DRE
patients admitted to Comprehensive Epilepsy Centers annually[2]

Significant Opportunity Exists to Close the Treatment Gap!

[1]Chen, Z., et al., JAMA Neurology, 2017. [2]Definitive Healthcare Claims Database for Epilepsy Patients who received Inpatient VEEG in 2019. [3]Ostendorf, et al, Neurology, 2022.

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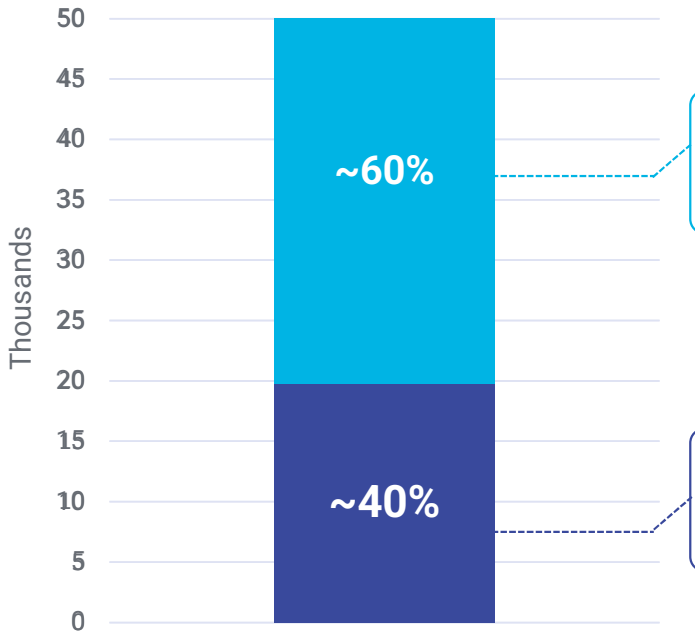
Annual Core U.S. Market Opportunity at CECs >$2 Billion

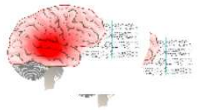
~50K New DRE Patients
Admitted to CECs Annually[1]



30K
Focal

$1.4B Annual U.S. Core Market
Excluding replacement implants[2]

20K
Generalized



$900M Annual Potential U.S. Core Market Expansion[3]
NAUTILUS: Completed implanting patients
LGS: Completed implanting patients

[1]Definitive Healthcare Claims Database for Epilepsy Patients who received Inpatient VEEG in 2019. [2]Includes adolescent patients, age <18. [3]Hauser, et al., 1993. Incidence of Epilepsy and Unprovoked Seizures in Rochester, Minnesota: 1935-1984. Epilepsia 34, 453–458.

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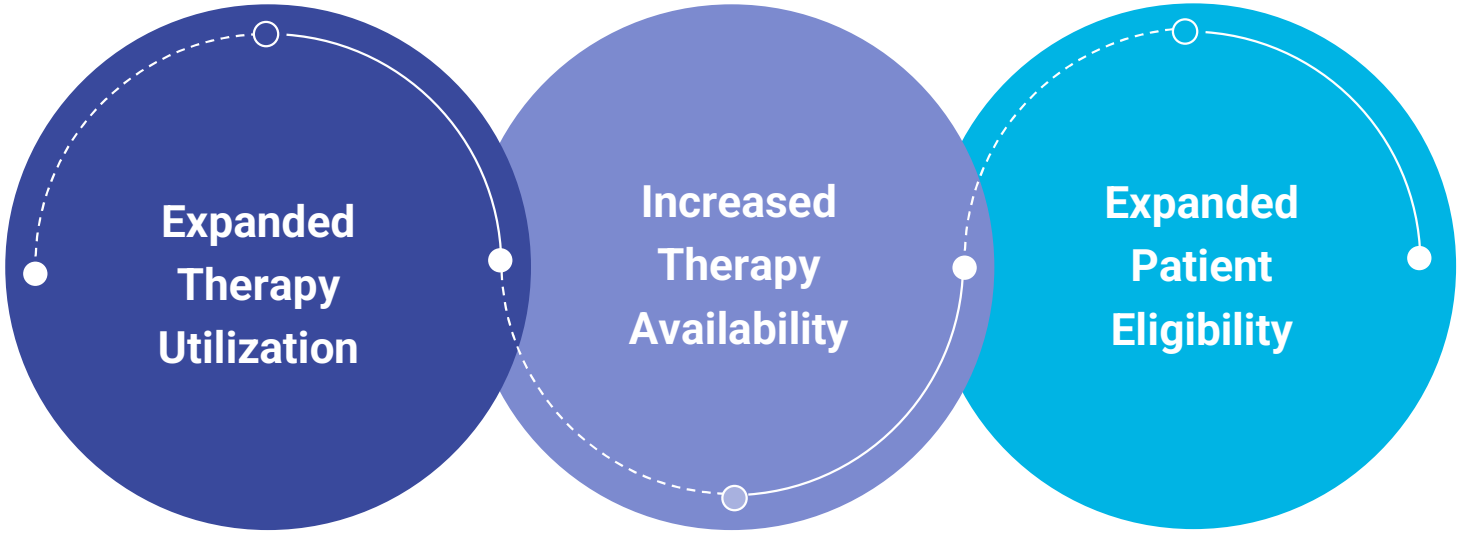
Closing the Epilepsy Treatment Gap Through Expanded Therapy Access



Educate and Support Clinicians and Patients to Empower Them in Their Treatment Journey

Increase Availability in Health Care Systems Near Patients (outside of CECs)

Broaden the Indications of Patients Eligible for the RNS System

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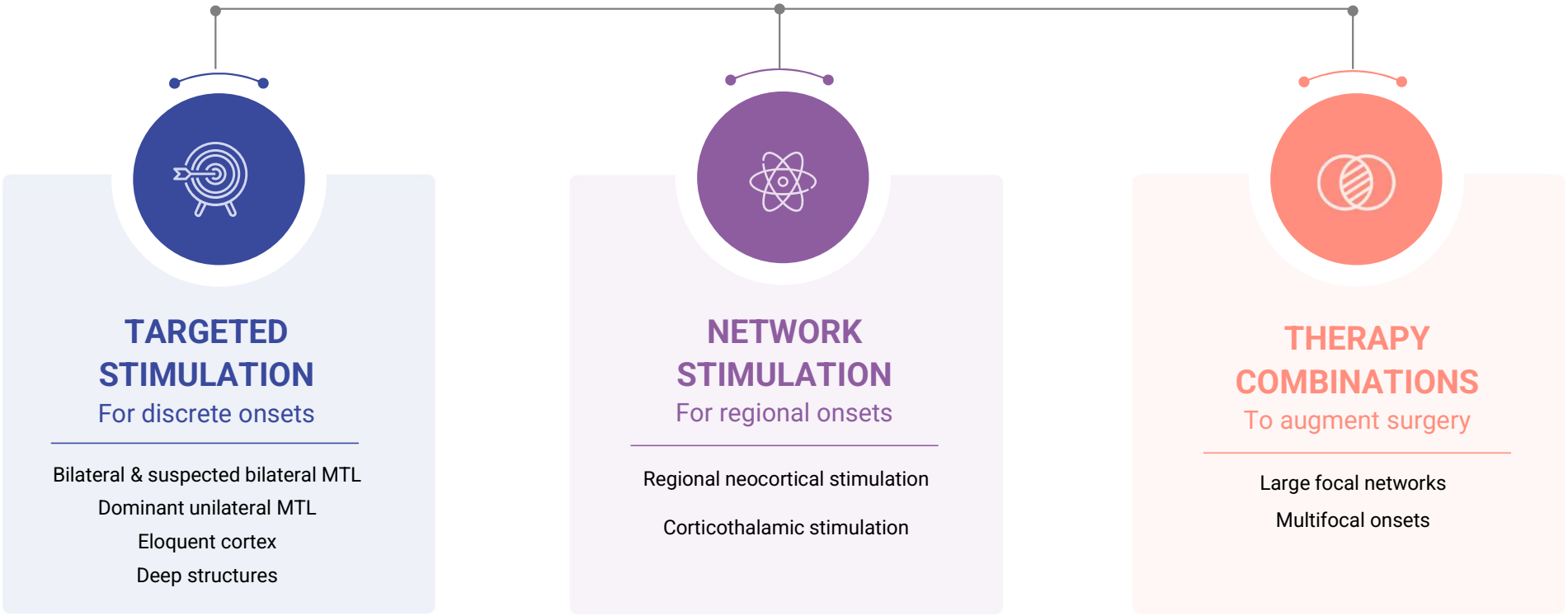
Expanded Therapy Utilization: Strategies for Focal, Refractory Epilepsy

RNS® System Enables Diverse Treatment Approaches



TARGETED STIMULATION

For discrete onsets

Bilateral & suspected bilateral MTL

Dominant unilateral MTL

Eloquent cortex

Deep structures

NETWORK STIMULATION

For regional onsets

Regional neocortical stimulation

Corticothalamic stimulation

THERAPY COMBINATIONS

To augment surgery

Large focal networks

Multifocal onsets

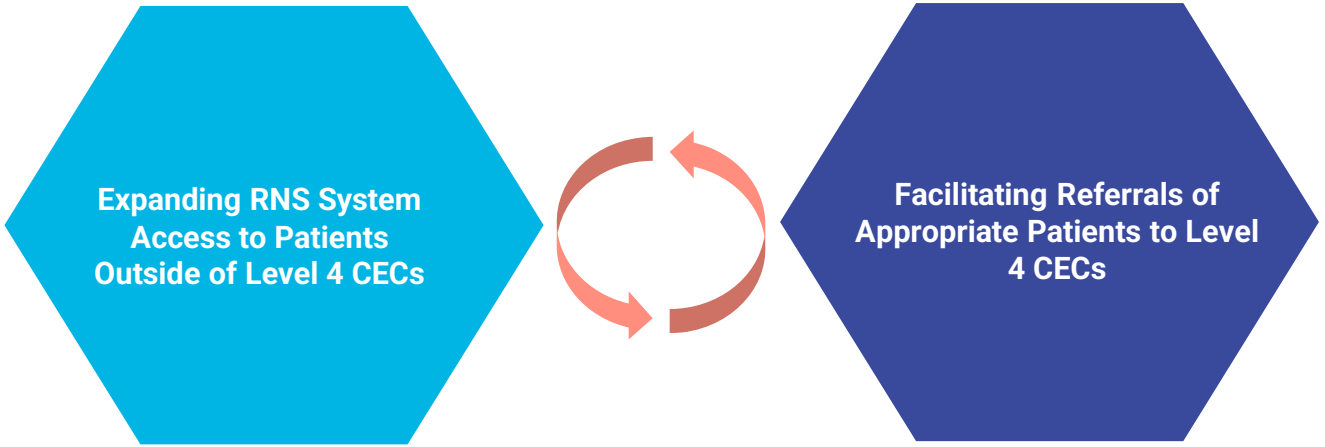
Market Expansion: Project CARE – Bringing the RNS System into the Community

Community Expansion – Making the RNS System Accessible to Patients and Clinicians outside of Level 4 CECs

- Expanding to additional 1,800 epileptologists and all functional neurosurgeons practicing outside of Level 4 CECs
- Significant expansion of RNS System TAM
- Palpable interest: patients implanted in community before official pilot launch

Project CARE Timeline

- 2024: Pilot Activities
- 2025: Program Expansion



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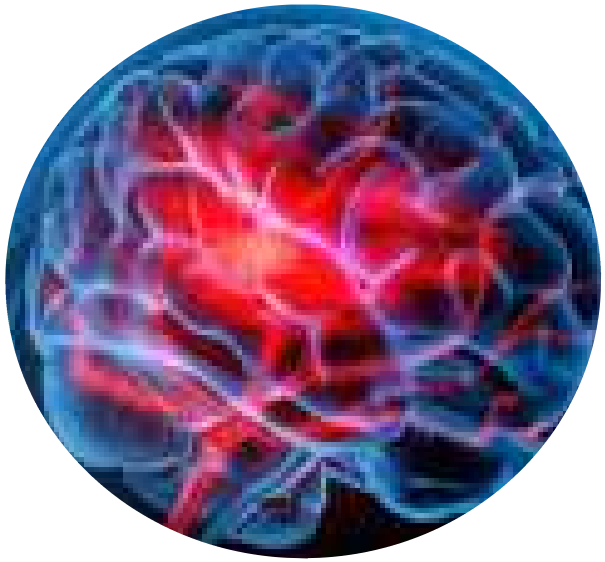
Indication Expansion: Generalized Epilepsy

Patient Eligibility Indication Expansion – RNS System indication for Generalized Epilepsy

- 40% of DRE market
- Shorter diagnostic process
- Shorter time from patient identification to implant



Generalized Epilepsy Clinical Trials

- **NAUTILUS**
  - Breakthrough Device Designation status
  - Enrollment and implants complete
  - One-year follow-up to be complete in March 2025
- **Lennox-Gastaut Syndrome (LGS)**
  - NIH-funded
  - Enrollment and implants complete

2023 — 2024-2025 — 2025-2026

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Closing the Treatment Gap: Enhanced RNS Therapy Access

CECs: Focus on Adoption Across Clinicians and Expanded Therapy Utilization by current prescribers

- Build on encouraging initial implant growth
- Network stimulation
- Clinical evidence

2023 | 2024-2025 | 2025-2026

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Closing the Treatment Gap: Enhanced RNS Therapy Access

Community Expansion: RNS System Access outside of Level 4 CECs / building referral pathways

- Expansion to additional 1,800 Epileptologists and all functional neurosurgeons within current indications
- Significant expansion of RNS TAM
- 2024: Pilot Activities / 2025: Program Expansion

CECs: Focus on Adoption Across Clinicians and Expanded Therapy Utilization by current prescribers

- Build on encouraging initial implant growth
- Network stimulation
- Clinical evidence

2023 2024-2025 2025-2026

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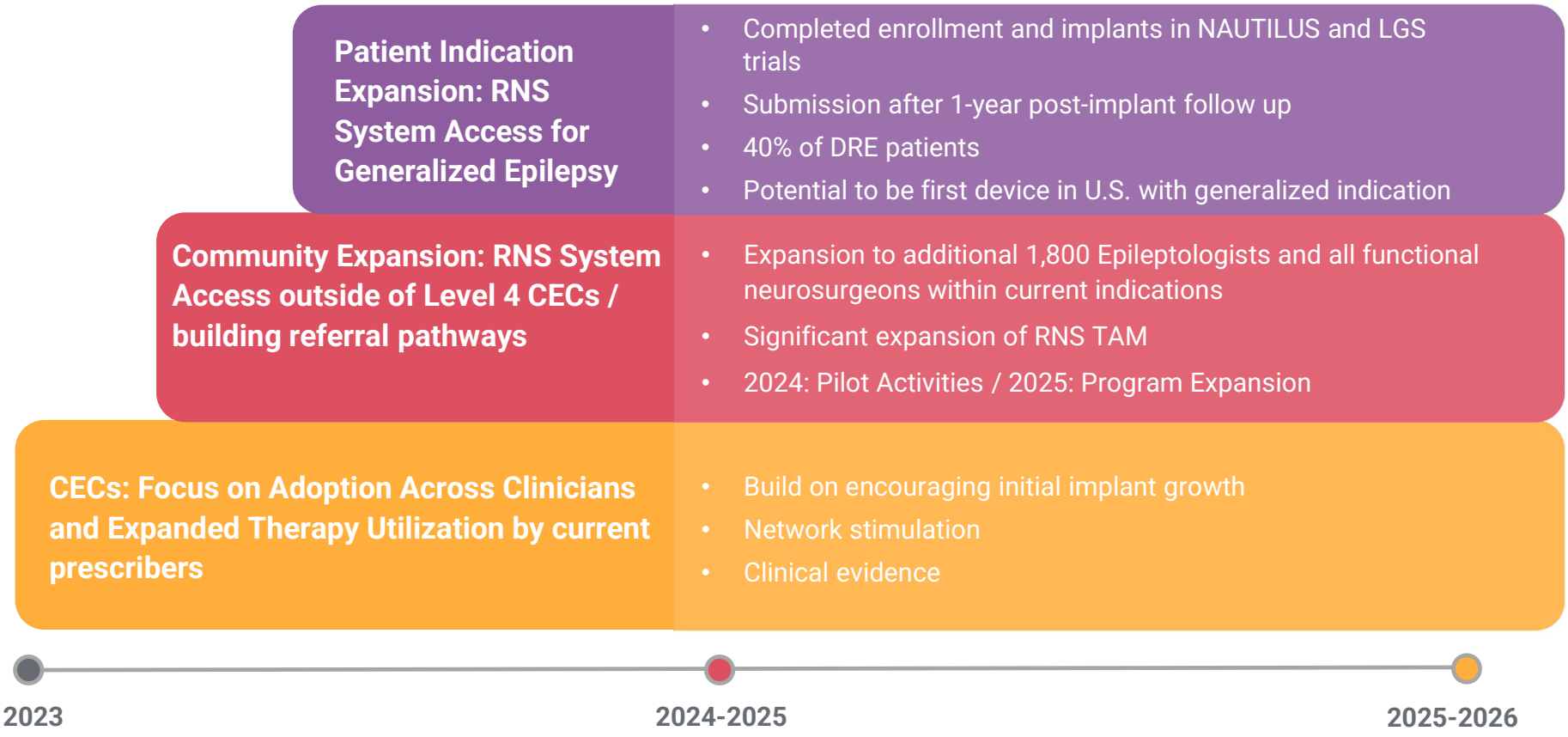
Closing the Treatment Gap: Enhanced RNS Therapy Access



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Leveraging the Power of the RNS System's Data Collection, Brain Monitoring and Analysis Capabilities

Strategic Collaboration Demonstrates NeuroPace's Data Offers a Window to the Brain® and May Help Inform Treatment Strategies

First of its kind collaboration: initial step into extending the benefits of NeuroPace's unique data monitoring and analysis capabilities to more patients and physicians:

- Collaboration uses data collected from currently implanted RNS System patients who enroll in a clinical-stage biotechnology company's proof of concept, Phase 2a, clinical trial.
- NeuroPace provides information and insights to help evaluate the impact of an investigational product candidate on certain biomarkers associated with focal seizures.

Key objective: Leverage NeuroPace's unique ability to monitor, sense, record brain activity and treat patients to provide value to more patients by offering insights into potential future therapies and helping further refine how patients implanted with the RNS System can be optimally treated.

DIXI Partnership Offers

Comprehensive Solution for Seizure Localization

Focal Seizures

Start in specific locations of the brain

Stereo EEG electrodes are used in CECs for seizure localization

- Determine starting location and transmission network of seizures
- Stereo EEG is less invasive, offers faster patient recovery, and has become the predominate approach for intracranial monitoring

ACS-770S-10

Distribution of DIXI Stereo EEG Products Leads to Earlier Patient Engagement

Accelerates core RNS business by helping to inform therapy decisions earlier

- ~2/3 of RNS patients go through intracranial EEG monitoring as part of the diagnostic process
- Most patients that have stereo EEG procedure are not currently getting RNS Therapy – growth potential

Provides visibility into diagnostic evaluation pipeline

- Typically 2-3 months from stereo EEG procedure to RNS implant

Additional revenue source leveraging existing field team

- Same account and physician call point - neurosurgeons and epileptologists at CECs
- Most NeuroPace RNS implanting centers are not currently using DIXI electrodes – growth potential
- Intracranial monitoring market in the United States is estimated to be between $25 million to $40 million

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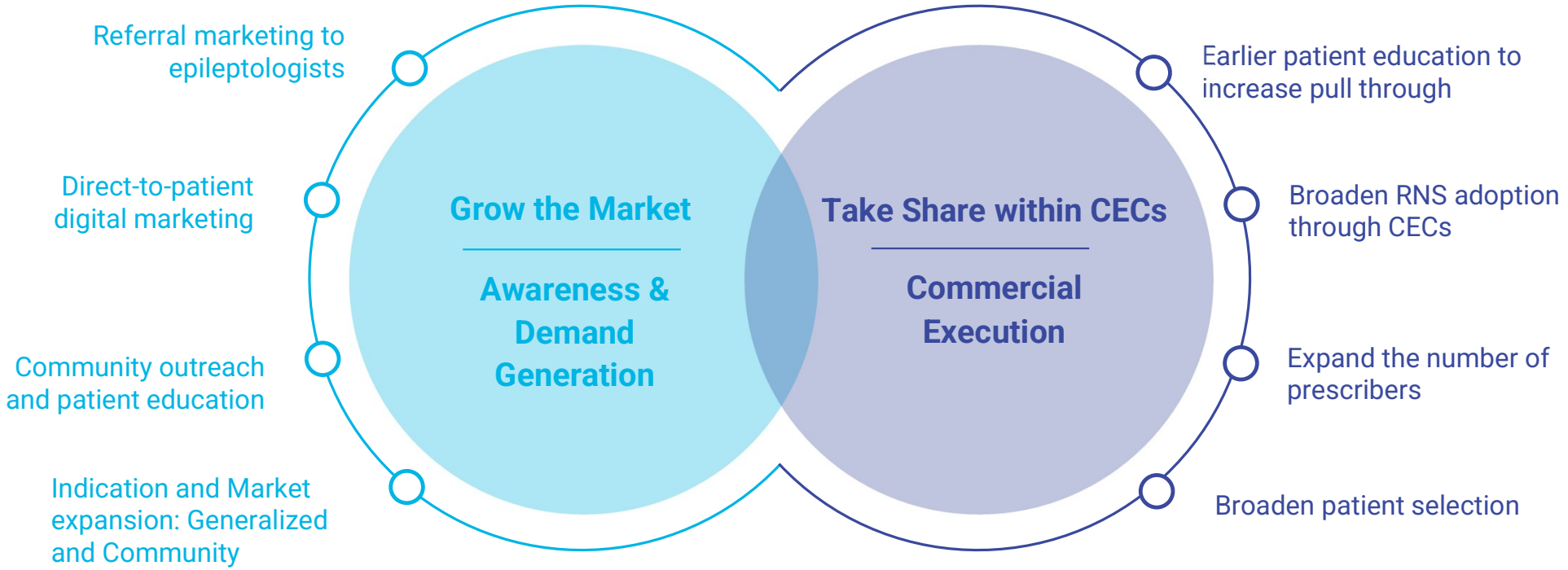
Closing the Treatment Gap to Drive Long-Term Growth



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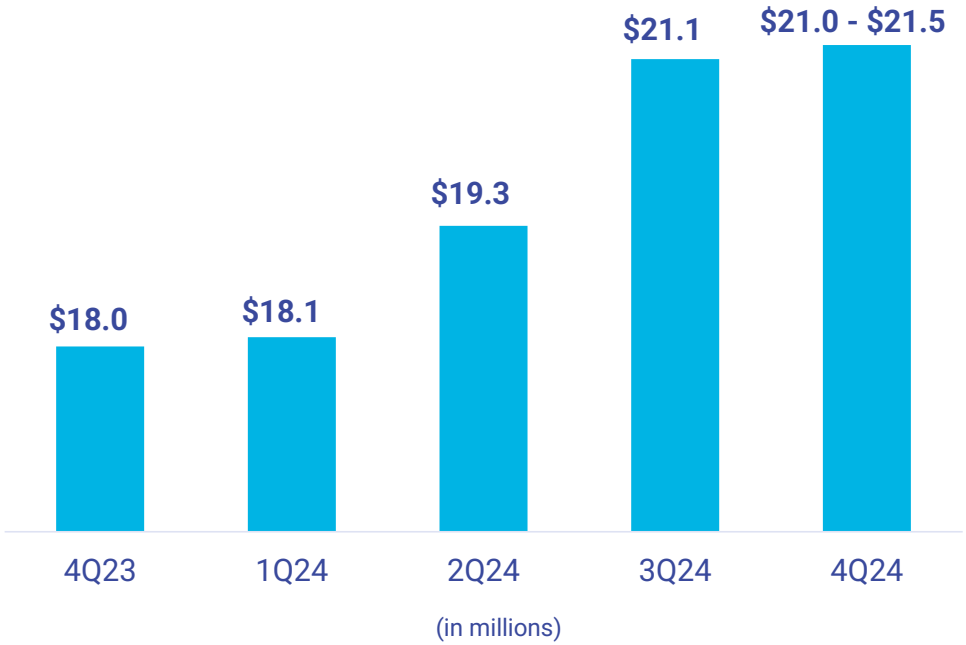
Financial Performance

Total Cash Balance of approximately $52.8M (as of 12/31/2024) provides sufficient capital to support key operating priorities



	Preliminary 4Q24 (unaudited)	Preliminary FY2024 (unaudited)
Revenue	**$21.0M - $21.5M**	**$79.4M - $79.9M***
Revenue growth (y/y)	17% - 19%	21% - 22%

*initial 2024 revenue guidance: $73M - $77M

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Summary

Positioned for growth and focused on revenue, operating discipline, and effective cash management

Prioritizing utilization and adoption of the RNS System across existing and new clinicians

Project CARE to expand access to the RNS System outside of Level 4 centers

Indication expansion efforts into IGE on track with NAUTILUS pivotal trial enrollment and implants complete

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Transforming the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures


NEUROPACE
In-Person and Virtual Investor Day to Discuss RNS® System in Drug-Resistant Epilepsy
Tuesday, January 28, 2025 | 9:00 AM - 12:00 PM ET
New York, NY and Live Webcast
CLICK HERE TO REGISTER & ATTEND