Shai N. Gozani, MD, PhD Tom Higgins Chairman, President & CEO SVP & CFO

September 2020

## Safe Harbor Statement

The statements contained in this corporate presentation include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, statements regarding our or our management's expectations, hopes, beliefs, intentions or strategies regarding the future. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "plan" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. The forward-looking statements contained in this corporate presentation, including those related to Quell Business Model, are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors including those risks, uncertainties and factors referred to under the section "Risk Factors" of the Company's most recent Annual Report on Form 10-K and of the prospectus included with our registration statement, and subsequent Quarterly Reports on Form 10-Q, as well as other documents that we may file from time to time with the Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.



Sector	Medical devices
History	Founded 1996, IPO 2004
Ticker	Nasdaq: NURO
Location	Woburn, MA
Markets	Chronic pain, diabetes, neurology
Products	Quell <sup>®</sup> , DPNCheck <sup>®</sup> , ADVANCE™
IP	70+ U.S. and international patents
Financials	2Q '20: rev \$1.4M, GM 64%, net loss \$0.9M, cash \$5.4M, no debt
Market Cap	\$7-8M, 3.8M common, no preferred or warrants

NeuroMetrix is a leading developer of proprietary non-invasive neurostimulation devices used for treatment, diagnosis and monitoring of common medical conditions involving the nervous system.



Our products are marketed throughout the world directly or through strategic and distribution partners. Our customers include consumers, physicians, and health plans.

# Peripheral Neuropathy is a Common and Significant Cause of Morbidity

- Degeneration of peripheral nerves
- 10%+ population prevalence
  - Strong age dependence; 25% in those over 65
- Causes
  - Diabetes is the most common specific cause (30-40%)
  - 20-30% idiopathic
  - Occurs in 70% of patients receiving chemotherapy
  - Autoimmune, renal failure, alcohol
- Morbidity
  - Unrecognized skin trauma → infection, ulcers, amputation (diabetic foot ulcers)
  - Increased risk of falls
  - Muscle cramps, lower extremity weakness
  - Charcot joints
  - Neuropathic pain

Uleer

**Diabetic Foot Ulcer** 







## 





## DPNCheck® POC Peripheral Neuropathy Test

Second generation system to be launched Q1 '21





Position patient, prepare testing area

Turn on, place biosensor, apply gel



Place device, start 10-15 second test



Read results



- Point-of-care test of sural nerve conduction, a standard biomarker for peripheral neuropathy (PN)
  - Measures standard nerve conduction parameters
  - + Sensitive and specific for PN
  - + Quantitative and objective
- Easy operation in the clinic
  - 30-60 seconds per test, does not disrupt patient flow
  - + Testing can be done by MA, technicians
  - + Generates reports, integrates with EMR
- Substantial clinical benefits
  - + Early detection, definitive diagnosis, assess severity
  - + Population health tool

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## Peer-reviewed Clinical Studies and Reviews

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- 15. Vogt et al. Assessment of diabetic polyneuropathy in Zanzibar: Comparison between traditional methods and an automated point-of-care nerve conduction device. *J Clin Transl Endocrinol.* 2017 Sep 20;10:9-14.
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## NEURO**Metrix**®



















#### THE LANCET Diabetes & Endocrinology









Science



1CA



## **Commercial Activity in Multiple Markets** Primary Focus is Diabetic Neuropathy

Market	Sales Model	Market Focus	<b>Diabetic Population</b>
JUS	Business to Business	Risk Assessment in Medicare Advantage (Not limited to diabetes)	30M adult patients
🥚 Japan	Business to Clinician	Clinic and Hospital Sales	7M adult patients
Mexico	Business to Government	6 Public Institutions Providing Care to Majority of Population	12M adult patients
China	Business to Clinician / Business	Clinic and Hospital Sales, Pharma. Companies	115M adult patients
Europe	Business to Clinician	Clinical Trials	66M adult patients
🔹 Middle East	Business to Clinician	Clinic and Hospital Sales	40M adult patients

## **DPNCheck Commercial Profile**

- Recurring revenue model
  - Initial device placement
  - Aftermarket biosensors sales
- Revenue split ~ 80% devices, 20% aftermarket
- Market distribution ~ 80% U.S., 20% outside U.S.
- Gross margins ~ 80%
- Revenue ~ \$4.3M (2020 H1 annualized) \$4.2m (2019 actual)



## Chronic Pain is a US and Worldwide Crisis



- 100M US adults
  - 1.5B worldwide
- \$600B annual cost
- 200M opioid prescriptions
- \$20B annual out-of-pocket spending
- But\* ....
  - 51% little or no control over their pain
  - 59% impacts their overall enjoyment of life
  - 77% depressed
  - 86% unable to sleep well



## Chronic Pain Market is Large and Complex Unmet Need for Effective Non-Pharmacological Pain Relief





















# Quell<sup>®</sup> 2.0 Chronic Lower Extremity Pain Relief

#### **Quell Device & Sports Band**

- Wearable neurostimulator for knee, foot and leg pain
- Can be worn 24/7
- Intelligent automated control
- Frictionless health tracking
- Twice a week charging
- 510(k) cleared



#### **Quell Electrode**

- Rated for 2 weeks
- Regular and sport versions



#### Quell App & Health Cloud

- Controls device
- Visualize, understand and optimize chronic pain and health
- Rich database for data analytics and clinical research
- Treatment coach based on gamification principles





Quell Health Cloud - data on 100K individuals with chronic pain



# Quell has Superior Benefit/Risk Among Pain Relief Options

Benefits	Quell°	OTC TENS <sup>1</sup>	OTC Internal Analgesics <sup>2</sup>	OTC External Analgesics <sup>3</sup>	Non-Opioid Pain Meds⁴	Opioid Pain Meds⁵
Chronic Lower Extremity Pain Relief		+/-				
Prescription Strength			+/-			
Wearable technology						
Overnight Use				+/-		
No Major Side Effects						
No Addiction Risk						
Smartphone Enabled		+/-				
Digital Health Integration						
Available Without Prescription						

1. Retail leaders are Omron, iReliev and AccuRelief.

2. Non-steroidal anti-inflammatory drugs, acetaminophen, aspirin, etc.

3. Analgesic patches and creams.

4. Gabapentin, pregabalin, duloxetine, amitriptyline, etc.

5. Hydrocodone, oxycodone, meperidine, etc.

## Quell Direct to Consumer Strategy

Digital Marketing → Upfront Device Purchase → Aftermarket Consumables

**Starter Kit** (QuellRelief.com, Amazon)

## **Consumables** (QuellRelief.com)



Device, 1 mo supply electrodes, sports band Also sold as bundles with additional electrodes



2 electrodes per sleeve



Quell 2	.0 Wearable I	Pain	Relief Techno	ology
Price: \$29	9.00 (\$299.00 / Cour	nt) vpri	me FREE One-Day	
Pay \$24.92, Card Style: Quel	/month for 12 mont	hs, inter	est-free with your .	Amazon Prime Rewards Visa
5	\$349.00 vprime	P	\$299.00 (\$299.00 / Count) vprime	
21	399.00 (\$399.00 / Count) yprime			
<ul> <li>Drug free</li> <li>FDA Class</li> <li>Designed</li> <li>Powered</li> <li>Includes device ch</li> </ul>	e system to relieve ch s II Medical Device if for use during the d by the Quell Relief a 1 Quell 2.0 device, 1 arcer	nronic pa lay while pp for a wearabl	in active and at night dvanced personaliza e band, 1 month su	when sleeping ation and control pply of electrodes, and 1

## Quell Technology Pipeline Creating a Broad and Valuable Pain Relief Franchise

Indication	Platform	OTC / Rx	Clinical Stage**	Next step	Target Launch Date
Lower extremity	Quell <sup>®</sup> 2.0	OTC	Post-market <sup>1</sup>		Commercial
Low back*	Quell <sup>®</sup> 2.0	ОТС	Phase II completed <sup>2</sup>	510(k) filing Q2 '21	H2 '21
Fibromyalgia*	Quell <sup>®</sup> 2.0	Rx	Phase II completed <sup>5</sup>	510(k) filing Q1 '21	H2 '21
CIPN*	Quell <sup>®</sup> 2.0	Rx	Phase II <sup>3,4</sup> (NIH)	Readout H1 '22	

\*The use of Quell technology for this indication is investigational. The safety and effectiveness for this purpose has not been reviewed by the United States Food and Drug Administration.

\*\*Regulatory filing may occur after Phase II or Phase III depending on safety profile and characteristics of Phase II trial.

<sup>1</sup>Kong and Gozani J. Pain Res, 2018. <sup>2</sup>Jamison et al. Pain Practice, 2019. <sup>3</sup>Supportive Care in Cancer, 2018. <sup>4</sup>NCT04367480. <sup>5</sup>NCT03714425.

# **Growth Strategy**

- DPNCheck
  - Continue to penetrate Medicare Advantage market
  - Launch generation 2 device
  - Support international partners
  - Support clinical studies
- Quell
  - Improve Quell 2.0 sales efficiency
  - Add distribution
  - Health Care Professional marketing
  - Expand clinical indications
  - Product enhancements
  - US market collaborations



# Financial Highlights

## Operations

	2020	2019
	(H1 Annlzd)	(Actual)
Revenue	\$7,064,031	\$9,272,523
Gross Profit	\$4,833,47 <b>9</b>	\$2,245 <i>,</i> 623
	68%	24%
OPEX	\$7,855,206	\$13,780,334
Operating Income	(\$3,021,727)	(\$11,534,711)

Capitalization

Equity	<b>Common Shares</b>	Market Cap (\$2 SP)	Capitalization
- Common stock	3,784,657	\$7,569,314	\$7,569,314
- Options, etc.	163,382	\$0	\$0
Fully diluted	3,948,039	\$7,569,314	\$7,569,314
Debt	N/A	N/A	\$0

Cash

	June 30, 2020
Cash	\$5,434,983

# **Management Team**



#### Shai N. Gozani, M.D. Ph.D., Chairman, Chief Executive Officer and President

- Dr. Gozani founded NeuroMetrix in 1996 as a spin-off from the Massachusetts Institute of Technology
- M.D. from Harvard Medical School; Ph.D. in Neurobiology from the University of California, Berkeley



#### Thomas T. Higgins, Senior Vice President and Chief Financial Officer

- Mr. Higgins has served as Senior Vice President, Chief Financial Officer and Treasurer since September 2009
- Prior to joining NeuroMetrix, Mr. Higgins was Executive Vice President and Chief Financial Officer at Caliper Life Sciences, a provider of technology and services for life sciences research
- B.B.A. with honors from Boston University



#### Michael J. MacDonald, Senior Vice President and General Manager of Diagnostics

- Mr. MacDonald joined NeuroMetrix in September 2000 and has held several marketing and sales positions
- Prior to joining NeuroMetrix, Mr. MacDonald held various marketing positions at Smith & Nephew Endoscopy, a world leader in minimally invasive surgical devices
- B.S. degree in Business Administration from Northeastern University



#### Xuan Kong, Ph.D., Senior Vice President and Chief Data Scientist

- Dr. Kong joined the company in 1999. In his role of Chief Data Scientist, he provides leadership for the Company's emerging data science program. Dr. Kong is also responsible for Company intellectual property development
- Prior to joining the company, Dr. Kong was a tenured associate professor in the Department of Electrical Engineering at Northern Illinois University
- Ph.D. from The Johns Hopkins University and MBA from Boston University