# NEUROMetrix®

Nasdaq: NURO

June 2022



#### 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.



#### Commercial stage neurotechnology company

Based in Woburn, MA

Trade on Nasdaq (NURO)

Over 5M patients served

Multiple product lines

High margin, recurring revenue model

Extensive IP portfolio

Fully integrated operations

#### **MISSION**

To improve individual and population health through innovative medical devices and technology solutions for neurological disorders and pain syndromes



## Proprietary medical devices and associated software solutions that address major unmet clinical needs

- Multiple product lines, large TAM, limited competition



Type of Device	Point-of-care Neurodiagnostic	Point-of-care Neurodiagnostic	Wearable Neuromodulator
Clinical Applications	Peripheral neuropathy screening	Diagnosis and screening for Carpal Tunnel Syndrome	Treatment of fibromyalgia (Rx) and lower extremity chronic pain (OTC)
Target Markets	Primary Care Clinics (Medicare Advantage)	Orthopedic Surgeons Occupational Health Clinics Employers	Consumers - OTC Rheumatologists & Pain Medicine - RX



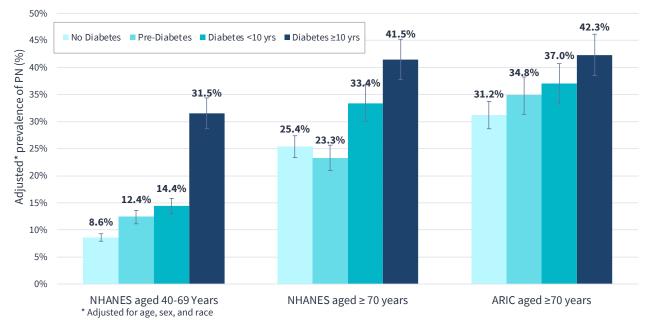
### Peripheral neuropathy has a very high population prevalence

- Substantial morbidity, elevated mortality and high economic burden

NHANES: 1999–2004 National Health and Nutrition Examination Survey

ARIC: 2016-2017 Atherosclerosis Risk in Communities Study



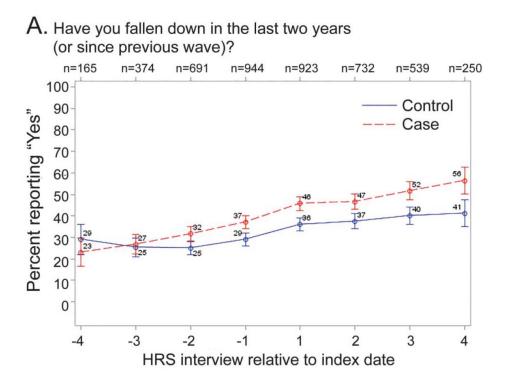


Age, sex and race-adjusted prevalence of peripheral neuropathy stratified by diabetes status in US adults aged 40-69 and  $\geq 70$  Years (NHANES, 1999-2004) and ARIC participants aged  $\geq 70$  years (Visit 6, 2016-2017).

# Elevated risk of falls, lower quality of life and pain precede peripheral neuropathy diagnosis by years

Callaghan et al. Neurology, 2015.

Figure 1 Comparison of the patient-oriented outcome trajectories between patients with neuropathy and propensity-matched controls



"We found that older adults with neuropathy have more falls and pain and lower self-rated health compared to carefully matched controls without neuropathy. These differences were present 3–5 years prior to a neuropathy diagnosis ...."

"Patients typically report neuropathic symptoms to their physician years after their insidious onset."

NEURO**Metrix**®

# DPNCheck® is an objective and accurate point-of-care test for peripheral neuropathy

- Measures sural nerve conduction
  - Standard-of-care peripheral neuropathy biomarker
- Gold standard NCS\* technology
- High diagnostic accuracy & clinical utility
- Detects early-stage & asymptomatic disease
- Grades severity
- Performed by medical assistant in 2-3 min
- Patented, portable device
- Single-patient consumable
- Over 2M patients tested
- Protected by multiple US / international patents

**DPN 2.0** 





## Validated in published studies including thousands of patients - High accuracy, broad clinical utility, 30+ peer-reviewed publications



Study Publication	Type 2	Type 1	No Diabetes	Total	Reference Diagnosis	Sensitivity	Specificity
Binns-Hall et al. 2018	231	5	0	236	Clinical	0.84	0.68
Papanas et al. 2019	0	53	0	53	Clinical	0.96	0.93
Chatzikosma et al. 2016	114	0	46	160	Clinical	0.91	0.86
Hirayasu et al. 2018	92	0	0	92	Clinical	0.85	0.86
Lee et al. 2014	28	16	0	44	NCS	0.95	0.71
Kural et al. 2018	168	0	0	168	NCS	0.82	0.85
Scarr et al. 2018	0	68	71	139	NCS	0.86	0.79
Total	633	142	117	892		0.88*	0.82*

9 out of 10 polyneuropathy cases detected

"The POCD has strong agreement and diagnostic accuracy for identification of polyneuropathy in a high-risk subgroup ..."
Scarr et al. 2018

"Sural nerve automated NCS with the NC-stat DPNCheck device exhibits high sensitivity and specificity for the diagnosis of DPN in T2DM." Chatzikosma et al. 2016

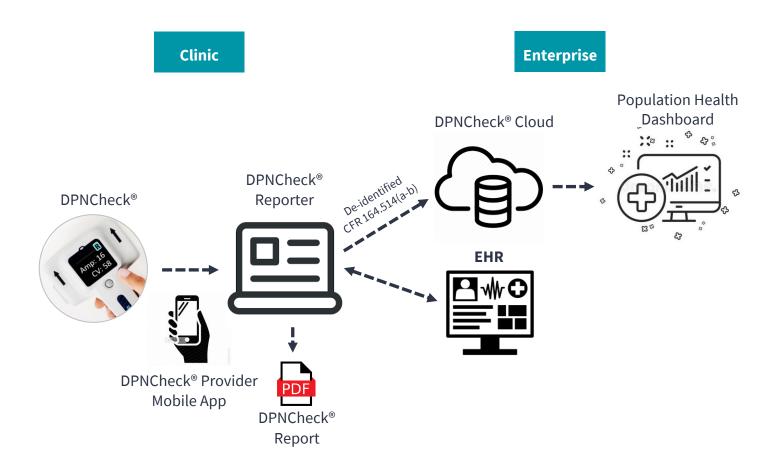
"The POCD may be used as a suitable screening tool for detection of DPN." Kural et al. 2018

"Differences in the severity of CIPN could be detected objectively and quantitatively using this POCD." Matsuoka et al. 2016

"Nerve conduction parameters in the sural nerve acquired by the handheld device successfully predict the severity of DPN." Kamiya et al. 2021



## Software ecosystem drives value from point-of-care to entire healthcare enterprise



### Large total addressable market

#### - Compelling growth opportunity in US Medicare Advantage

#### \*Near-term growth opportunities

Market	Sales Model	Call Point	Channel	Sales Breakdown	TAM (Patients)
US*	B2B	Medicare Advantage (MA)  Medical Groups & IDNs  MA Insurers  Health Risk Assessment Providers	Direct	80%	29M MA Enrollment
Japan*	B2P	Clinics / Hospitals	FUKUDA		7M Diabetes
China*	B2P / B2B	Clinics / Hospitals / Pharma	<b>omron</b> Beijing		115M Diabetes
Mexico	B2G	Public Health Care Institutions	TBD	20%	12M Diabetes
Europe	Clinical Studies	N/A	Direct		30M Diabetes

B2B - Business to business

B2G - Business to government

B2P - Business to physician



## DPNCheck® helps closes the gap between actual, recognized and managed risk in Medicare Advantage

### <u>Typical Medicare Advantage</u> <u>Population</u>

30

% beneficiaries (prevalence) with peripheral neuropathy





Identified
Peripheral Neuropathy

10-15

% beneficiaries with ICD-10 coded peripheral neuropathy



Treated Peripheral Neuropathy

<5

% beneficiaries with peripheral neuropathy cause identified and treated

DISCLAIMER: The information contained in this slide is provided as general information only. It is not intended to serve as medical, health, legal or financial advice or as a substitute for professional judgment of a medical coding professional, healthcare consultant, physician or medical professional, or legal counsel.

### DPNCheck® commercialized through direct, high-leverage US sales channel

- Target key organizations within Medicare Advantage eco-system
  - At-risk medical groups / IDNs
  - Health Risk Assessment (HRA) providers
  - Health insurers
- Commercial team with deep Medicare Advantage experience
- Long sales cycle (6-12 mos) → enterprise-wide deployment following pilot evaluation
- Revenue from device purchases and recurring biosensor sales
- Customer ROI derived from clinical benefits, cost savings and more accurate RAF scores
  - DPNCheck is typically not billed fee-for-service

#### Quell® wearable neuromodulation technology

- Refined over 200K+ patients and multiple clinical studies
- Wearable, transcutaneous electrical nerve stimulator (TENS)
- Best-in-class technology
- Designed for continuous use, typically 6-10 hours/day (including overnight)
- Configured and monitored with smartphone and smartwatch apps
- Frictionless utilization and health tracking
- Covered by 23 US utility patents and multiple international patents

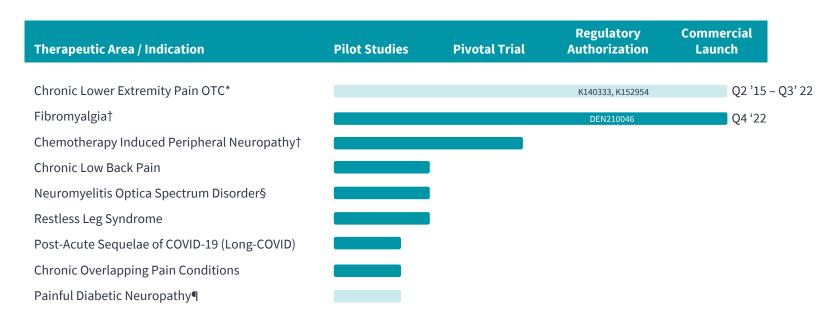






### Pipeline of prescription wearable neurotherapeutics

- Label and TAM expansion
- Two FDA breakthrough designations



<sup>\*</sup>OTC indication was cleared without clinical studies under a 510(k) by substantial equivalence to a predicate TENS device.

NOTE: Candidate indications at the regulatory authorization or earlier stages are under development and have not been evaluated for safety or effectiveness by the U.S. Food and Drug Administration. The development process carries substantial risk, and these candidates may not progress to commercial products in the future.

<sup>†</sup>Received FDA Breakthrough Designation.

<sup>§</sup>Pilot study used Quell Flex device rather than Quell 2.0 device.

<sup>¶</sup>Pilot data consists of informal real-world evaluation.

## Fibromyalgia is a common, disabling condition of chronic generalized pain and somatic symptoms

U.S. prevalence of 5 – 10M

Generalized pain + fatigue, sleep disturbances, cognitive dysfunction

Caused by altered sensory/pain processing

Many comorbidities (RLS, RA, migraine, IBS, MDD, anxiety)

Low health-related quality-of-life

High rate of suicidal ideation and attempts

Three approved drugs (pregabalin, duloxetine, milnacipran), limited efficacy with side-effects

"Feels like a vacuum is sucking my soul out little by little 24/7 all the while being pressed like a pancake and poked with a electric prod." – Julie G.

> "Like my body is on fire and stiff as a board. Then it goes away but comes back full force out of the blue. Foot to head." – Jill F.H.

"Some days it feels like I have barbed wire wrapped around my legs. Every step, movement and slight pressure feels like the barbs are being pressed into my skin." – Melissa C.

Source: www.themighty.com/2018/09/what-fibromyalgia-pain-is-like/

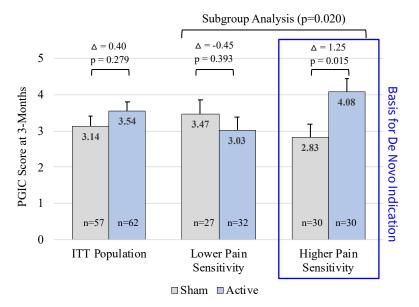
## Quell<sup>®</sup> demonstrated clinically meaningful benefits in patients with fibromyalgia over 3-months



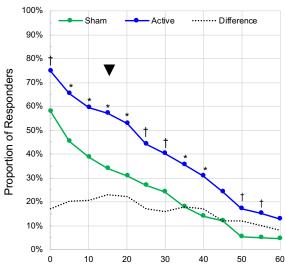
- Results of a double blind, randomized, sham-controlled trial

- 119 patients with fibromyalgia
- Randomized 1:1 to active or sham (both devices stimulate)
- 3-months at-home treatment
- Analyses conducted on ITT population (N=119) and high pain sensitivity subgroup (N=60)
- Few adverse events, all minor

#### Comparison of PGIC in ITT population and in pain sensitivity subgroups. Error bars indicate SE.



FIQR cumulative proportion of responders analysis (ITT population). Black triangle indicates minimum clinically meaningful threshold. \*, p<0.05 for treatment difference by two proportion z-test. †, p<0.1 for treatment difference by two proportion z-test.



Percent Reduction from Baseline to 3-Months

PGIC, Patient Global Impression of Change (1 – 7). FIQR, Fibromyalgia Impact Questionnaire.
Source: Clinical Study Report "Efficacy of the Quell Wearable Device for Fibromyalgia" submitted in De Novo request October 2021. Some results published in Jamison et al. J. Pain Res, 2021.

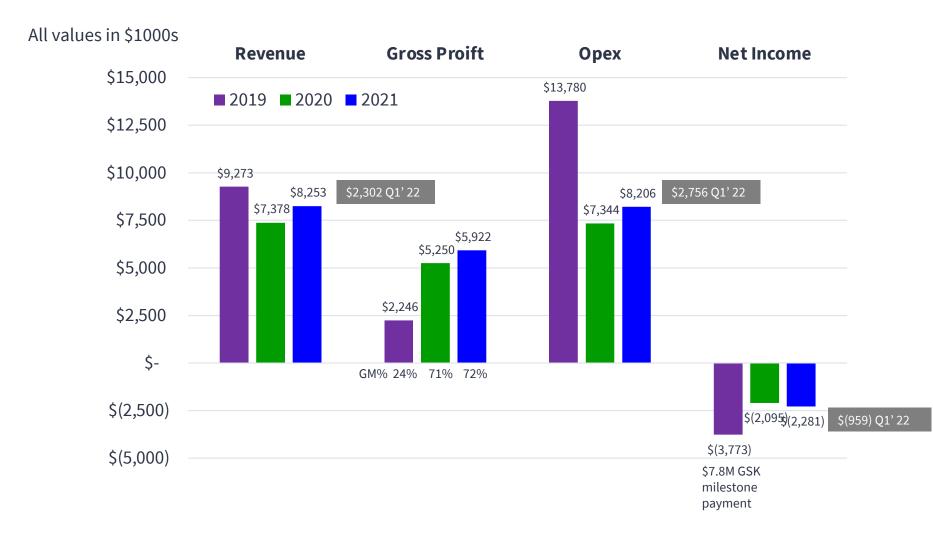
### Quell<sup>®</sup> Fibromyalgia commercialization strategy

- Only FDA authorized non-pharmacological treatment for fibromyalgia
- Indications for Use (prescription)
  - ... an aid for reducing the symptoms of fibromyalgia in adults with high pain sensitivity.
- Phased market approach
  - Phase 1: Limited launch to estimate KPIs and evaluate sales/operations tactics
  - Phase 2: Full physician office launch (rheumatologists & pain medicine physicians)
  - Phase 3: Add telehealth capability
- Multi-pronged promotion strategy
- Online pharmacy to process and dispense prescriptions
- Efficient, cost-effective cash pay at launch
- Pursue select third-party payment opportunities
  - VA, value-based care, employers
- Expand clinical evidence for fibromyalgia and associated conditions
  - Long COVID, Chronic Overlapping Pain Conditions (COPC)



#### Improving financial metrics

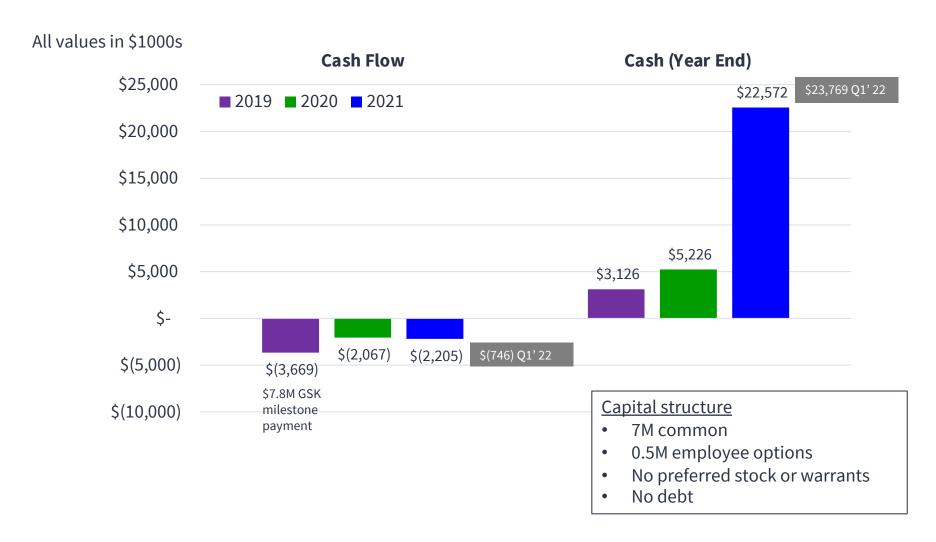
#### - Majority of revenue generated by DPNCheck® business





### Strong balance sheet and simple capital structure

- Positioned to execute on growth initiatives



## DPNCheck® will drive near term growth with therapeutics portfolio contributing over longer term

**NEUROMetrix**°

- 3 key growth initiatives in 2022



#### Organic growth in DPNCheck® Medicare Advantage business

- Expand commercial team
- Launch second generation device
- Improve EMR integration capabilities
- Launch population health analytics cloud



#### Launch Quell® Fibromyalgia

- Receive De Novo authorization
- Establish go-to-market strategy
- Build initial commercial team
- Pilot commercial launch



#### Advance Quell<sup>®</sup> neurotherapeutics program

- Regulatory filing for treatment of CIPN
- Launch pilot study in COPC
- Launch pilot study in Long COVID

#### Financial outlook for 2022



Expect revenue to increase driven by growth in DPNCheck business

Quell sales will temporarily decrease as business transitions to prescription neurotherapeutics

ADVANCE will decrease reflecting focus on other priorities and supply constraints



Modest increase in operating expenses reflecting investment in growth initiatives



Modest increase in net loss due to relative timing of investments and resulting revenue growth



Cash will decrease due to negative income, however, expect to end the year with ~\$20M on balance sheet

Opportunistic use of ATM facility



### NeuroMetrix investment highlights

Commercial stage neurotechnology company

Operate in the large chronic pain and neurology markets

Two active product lines with high margin, recurring revenue

Innovation driven with a rich product pipeline

Extensive US and international IP portfolio

Well capitalized, no debt and simple capital structure

Poised for long term growth and sustained profitability