

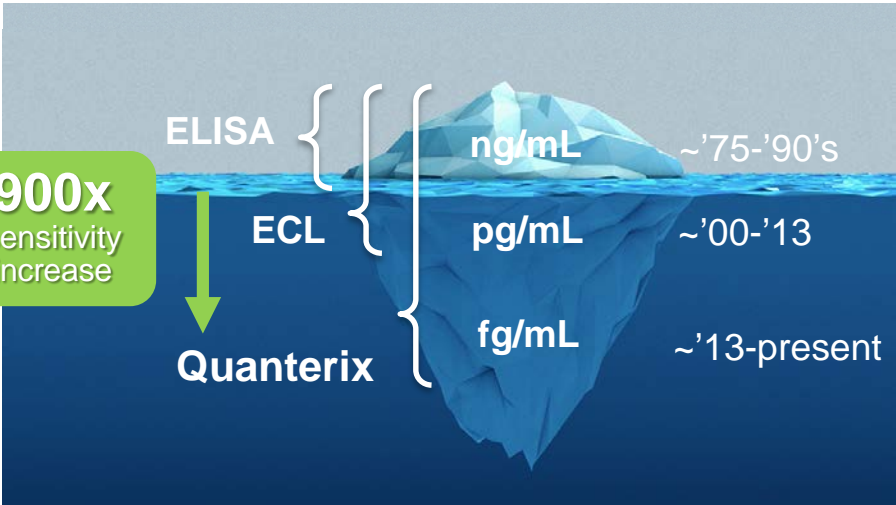
Q4 2018 Earnings Call • March 7, 2019

This presentation contains “forward-looking” statements that are based on our beliefs and assumptions and on information available to us as of the date of this presentation. Forward-looking statements include all statements that are not historical facts. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. The risks and uncertainties that we face are described in our most recent filings with the Securities and Exchange Commission. Except as required by law, we assume no obligation to update these forward-looking statements, even if new information becomes available in the future.

This presentation will also include certain financial measures that were not prepared in accordance with U.S. GAAP. The information required by the SEC pursuant to Regulation G, including reconciliation of the non-GAAP financial measures to the most directly comparable GAAP financial measures, can be found in our earnings release issued previously today, which is on our website.

- I. Strategic and Financial Progress – Kevin Hrusovsky – Chairman, CEO
 - i. Q4 and FY 2018 Highlights
 - ii. 2018 / 2019 Goals & Priorities
 - iii. Transforming Medicine: Neurology Momentum Update
- II. Financial Report – Joe Driscoll – CFO
- III. Summary of QTRX Opportunity - Kevin Hrusovsky
- IV. Q&A

Exquisite Biomarker Sensitivity



Superb Execution

- Aushon acquisition
- Regained IVD rights
- Attracting Top Talent
- Two FDA Nf-L sessions
- Launch SR-X, SP-X, CorPlex
- EU Powering Precision Health Summit

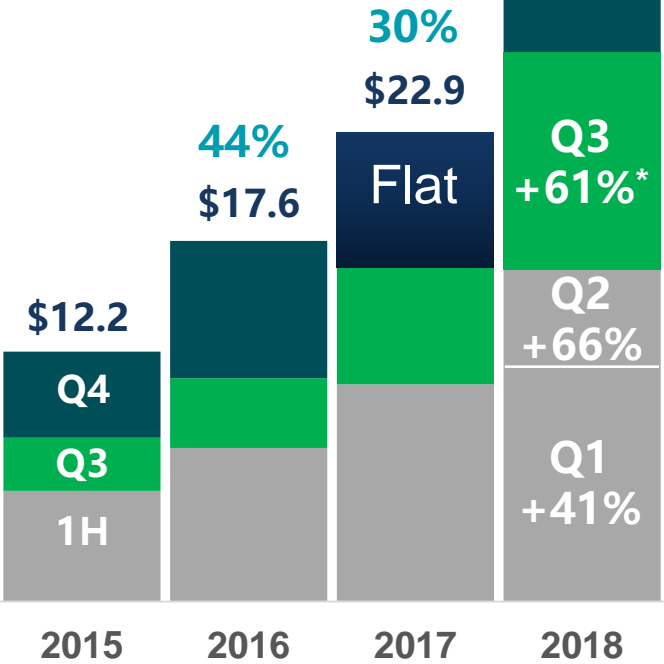
Total QTRX Revenue Growth

(\$ in millions)

60%*

\$37.6

*Growth rate excludes one-time collaboration revenue



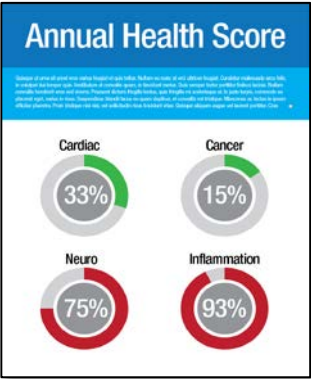
Research
Market: \$1B → \$8B

300%

increase in probability of drug approval

← Now: Rev 0 - \$38M; Neuro and Onco

→ Starting 2020: LDT – IVD - DTC



Diagnostics
Market: \$30B+

GM

47%

44%

44%

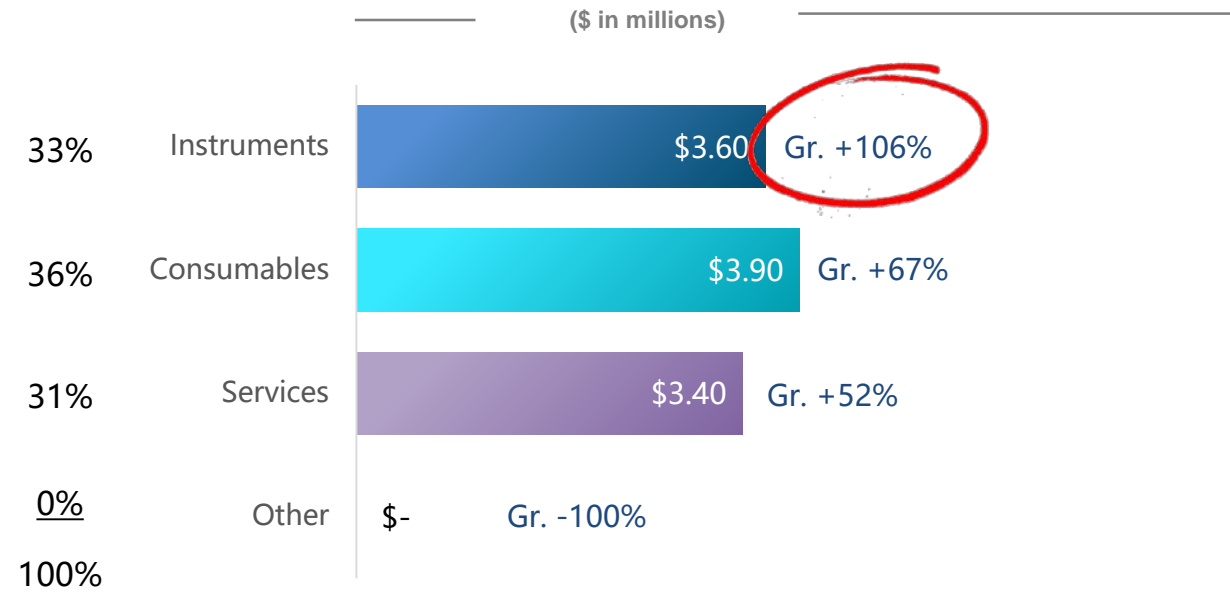
48%

FY2018 Growth is Accelerating Across All Segments

- Revenue \$10.9M, +65% vs. PY Q4
- High margin mix accelerating, Consumables growth +67%; GM 48.2%, +450bp

65% Growth

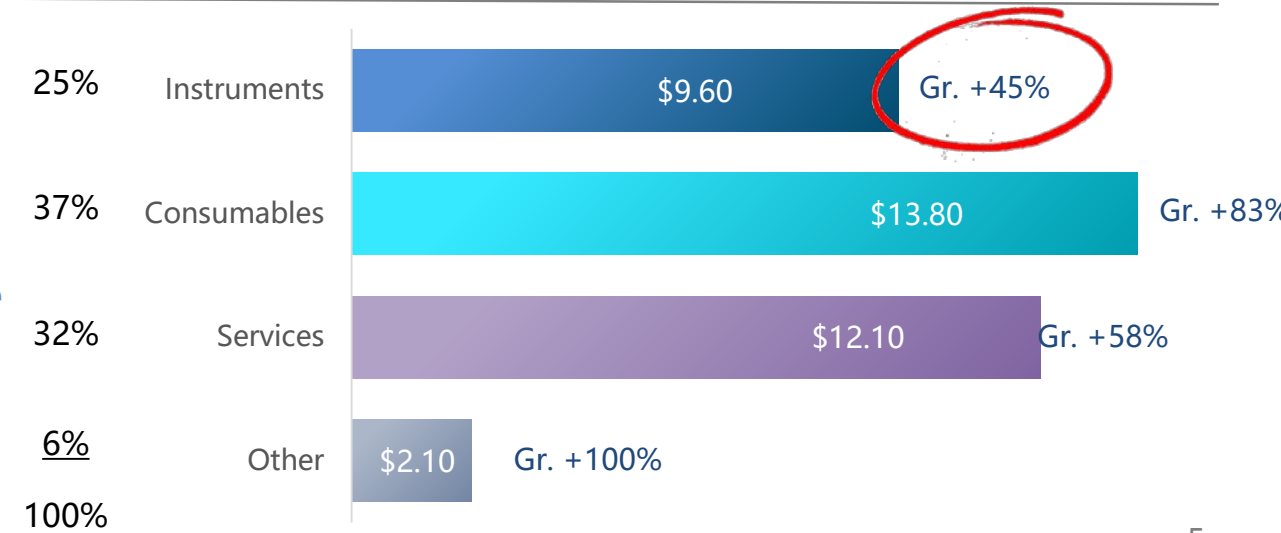
Q4'18 Revenue



- Revenue \$37.6M, +65%, +60% excl 1 time
- GM +410bp, +259bp adjusting 1 time
- Consumable pull-through grew from 35% of list price in Q1 to 41% in Q4; FY 40%
- Instrument growth accelerated in 2H after 3 years of flat growth

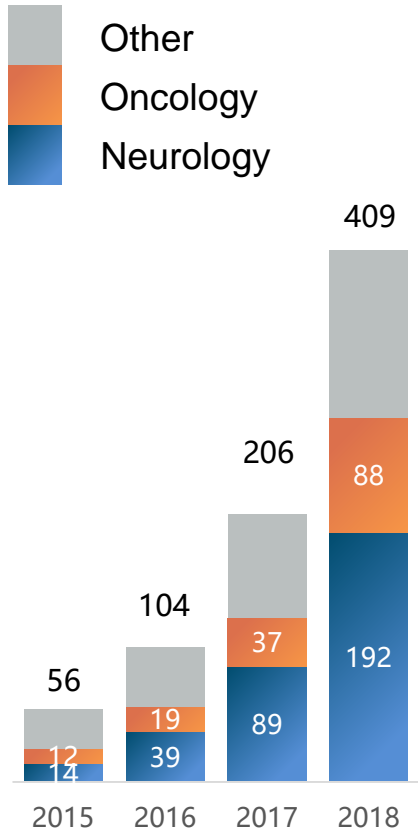
60% Growth

FY'18 Revenue

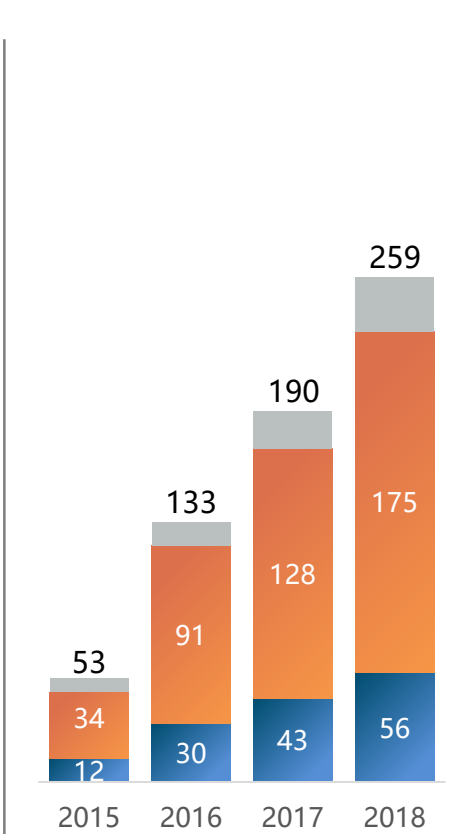


Scientific Research is Driving Brand Awareness, Performance and Utilization

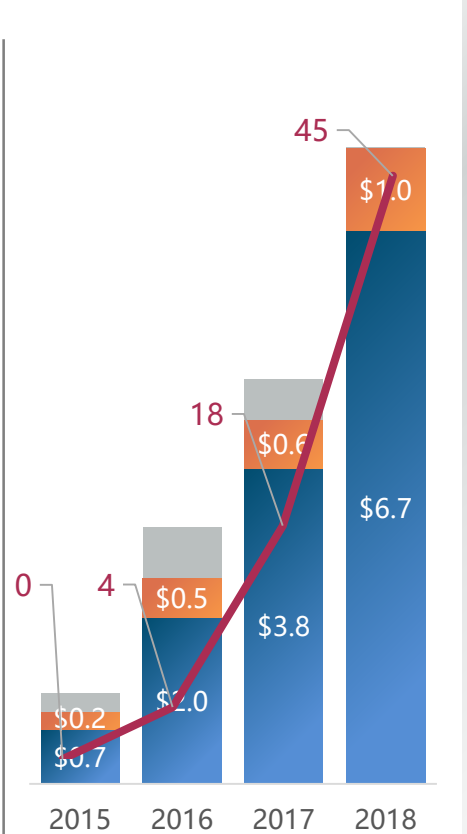
PUBLICATIONS



MARKERS

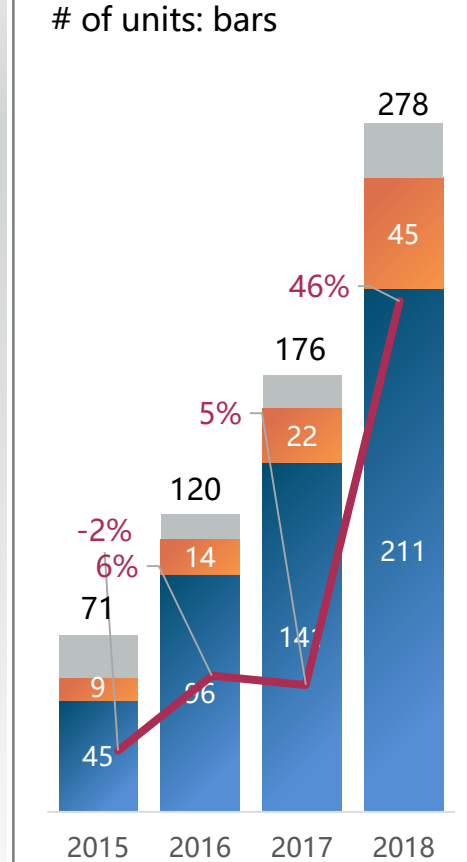


ACCELERATOR



— Number of drug trial projects completed

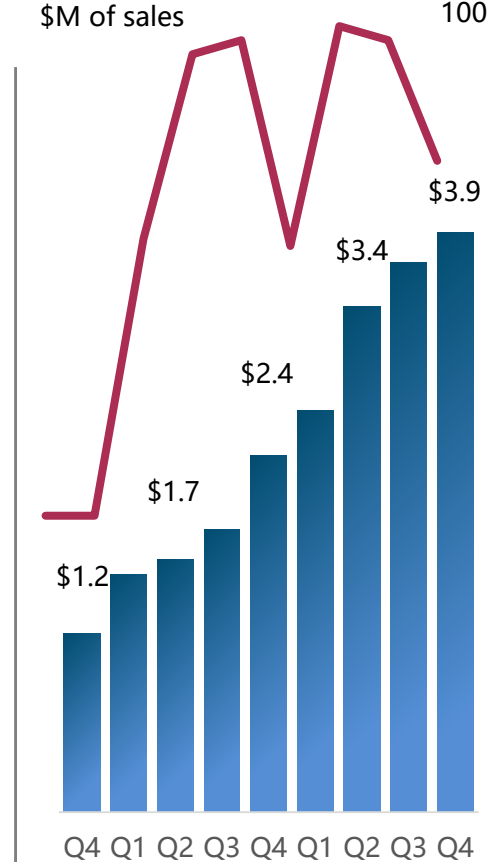
INSTRUMENTS*



— Revenue Growth %

*Instrument segmentation estimated based on consumables sold

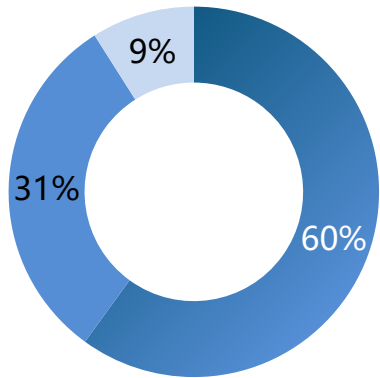
CONSUMABLES



— Consumable growth

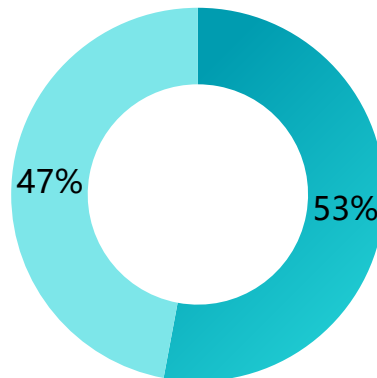
FY2018 Growth Stratification

Geography



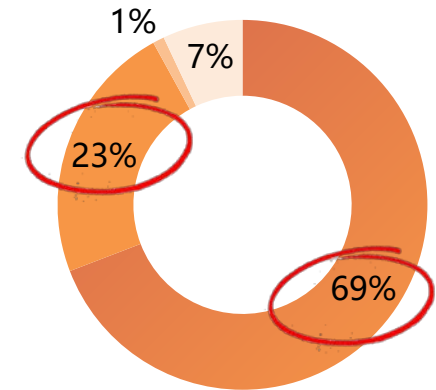
	<u>Growth</u>
NA	+64%
Europe	+69%
Asia	+54%

Customer



	<u>Growth</u>
Pharma/Biotech CRO	+63%
Academia	+69%

Diseases



	<u>Growth</u>
Neurology	+73%
Oncology	+110%
Cardiology	+242%
ID	+101%

92%

FINANCIALS

METRIC	STATUS
Revenue: 40% growth	+65%
Instrument +20%	>46%
Annual Utilization: 33% List Price	40% List
GM: +300bps.	+410bps

COMMERCIAL

Add 20 Commercial HC	25 + INVESTORS, 60 all functions
Pubs 275+	409
100% TOP PHARMA	10/10, 19/20 top; ~800+ trials

Overachieved

Achieving

Marginal Risk

High Risk

NEW PRODUCTS

METRIC	STATUS
SR-X 50	>70 booked
SP-X 6+ plex prototype	Q4 test bed 10 plex
25 new assays	69+
CLIA Lab for Pharma	Aushon Acquired

STRATEGY

Restore Diagnostics rights	ACHIEVED
PPH sponsorship	PPH Europe Success
FDA Advancement	Two Meetings; ODES
Market Expansion	R: \$1B→\$8B; D: \$30B

LSR Neurology

Continue high double digit growth w/ high utilization

Only <10% penetrated



- Expand SR-X / HD1 Menu
Add 25 Assays
- Launch HD-X 4Q
- Scale globally, IT and facilities. Add 40 HC / ½ commercial.

LSR Oncology

3x larger than Neuro w/ minimal penetration today



- Launch SP-X 1H
- Launch CorPlex Assays – 10 plex

Enter diagnostics:

1. 50 Drug Trials (neuro/onco)
2. LDT partner (explore direct)
3. Explore IVD partnerships
4. Sponsor PPH

Financials:

Long-term growth: 40%

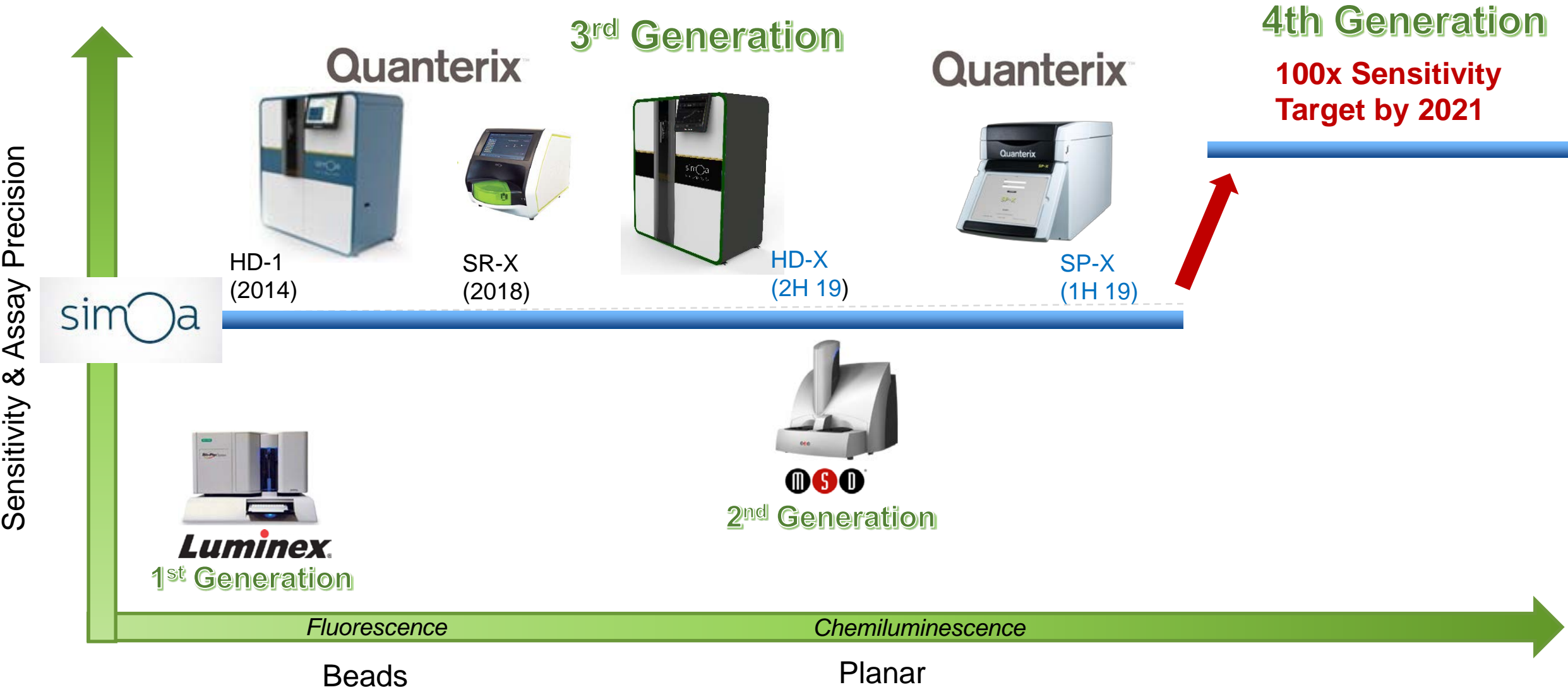
Utilization: Drive incremental utilization across all platforms

Gross Margin: 300 bps

Instrument: 25% growth



- **100x more sensitivity by 2021 YE**
- Lead next frontier of medicine; Protein Translational Modifications



Competitive Landscape

Quanterix

Luminex

MILLIPORE
SIGMA
Singulex

M S D

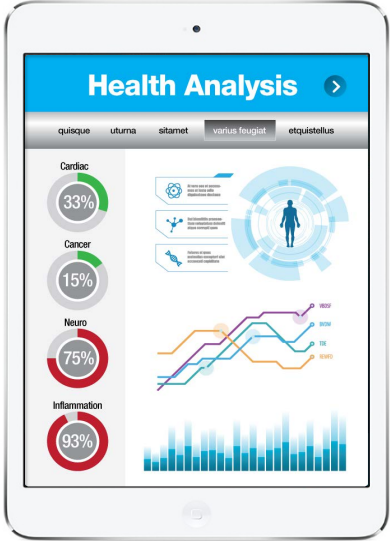
protein
simple

Technology	Bead-Based Simoa	Planar SP-X Simoa	Bead-based Immunoassay	Erenna Immunoassay	Electrochemi-luminescence	ELLA
Sensitivity	Green	Yellow (highlighted)	Red	Green	Red	Red
Dynamic Range	Green	Green	Green	Yellow	Green	Yellow
Automation & Ease of Use	Green	Yellow (highlighted)	Yellow	Red	Yellow	Green
Precision	Green	Green	Red	Red	Yellow	Green
Multiplexing	Yellow (highlighted)	Green	Green	Red	Green	Yellow
Menu	Yellow (highlighted)	Yellow (highlighted)	Green	Red	Green	Yellow
Cost	Yellow (highlighted)	Green	Yellow	Red	Yellow	Yellow

Today: Invasive and Late

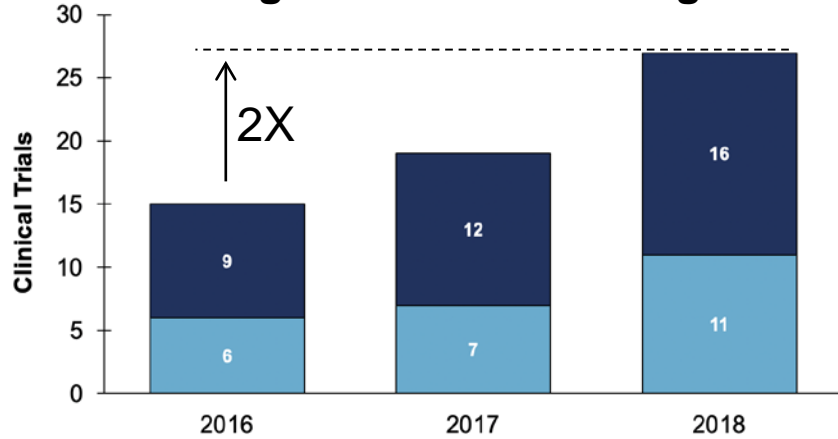


Tomorrow: Non invasive and Early

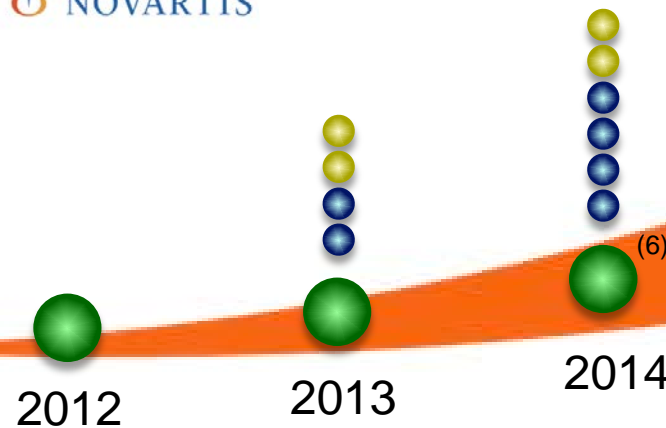


Simoa Neurology Publications – Catalyzing Disruption

Drug Clinical Trials Using NfL



- Alzheimer's Disease
- TBI/concussion
- Multiple sclerosis
- Parkinsons, ALS, FTD, etc



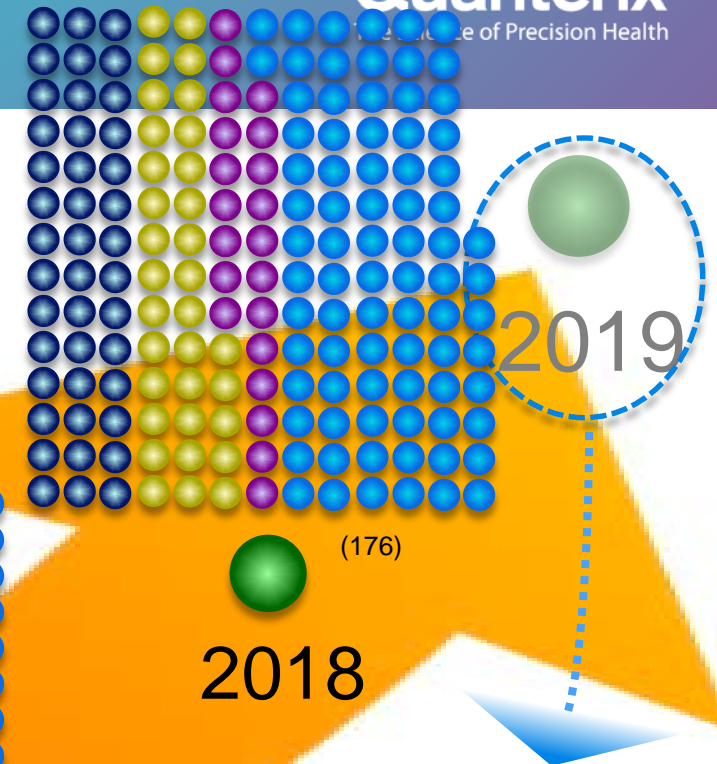
2x winner



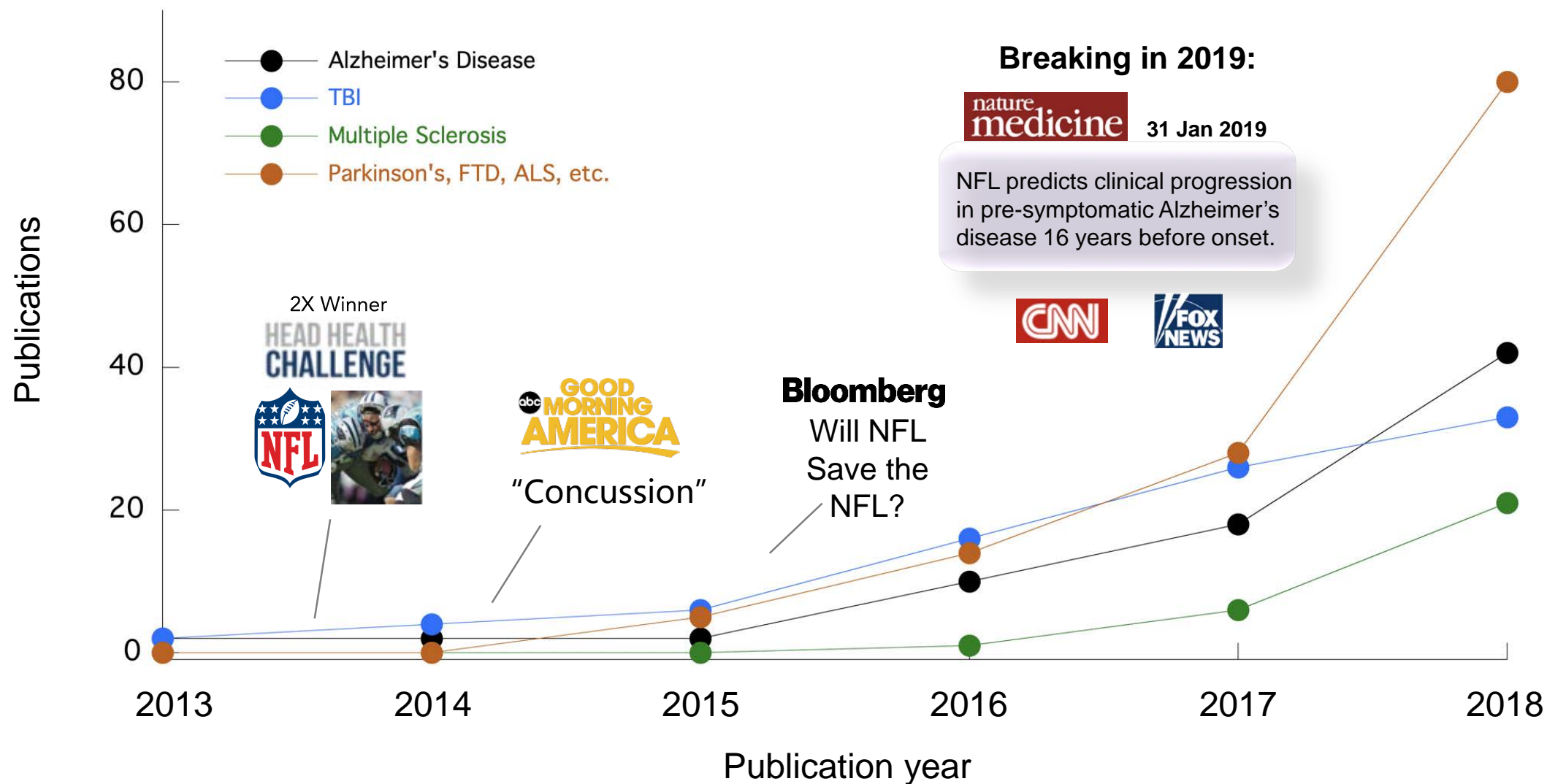
nature medicine 31 Jan 2019
NFL predicts clinical progression in pre-symptomatic Alzheimer's disease 16 years before onset.

Neurology 08 Feb 2019
NFL clinically validated for monitoring MS & treatment response in 2 Phase III trials.

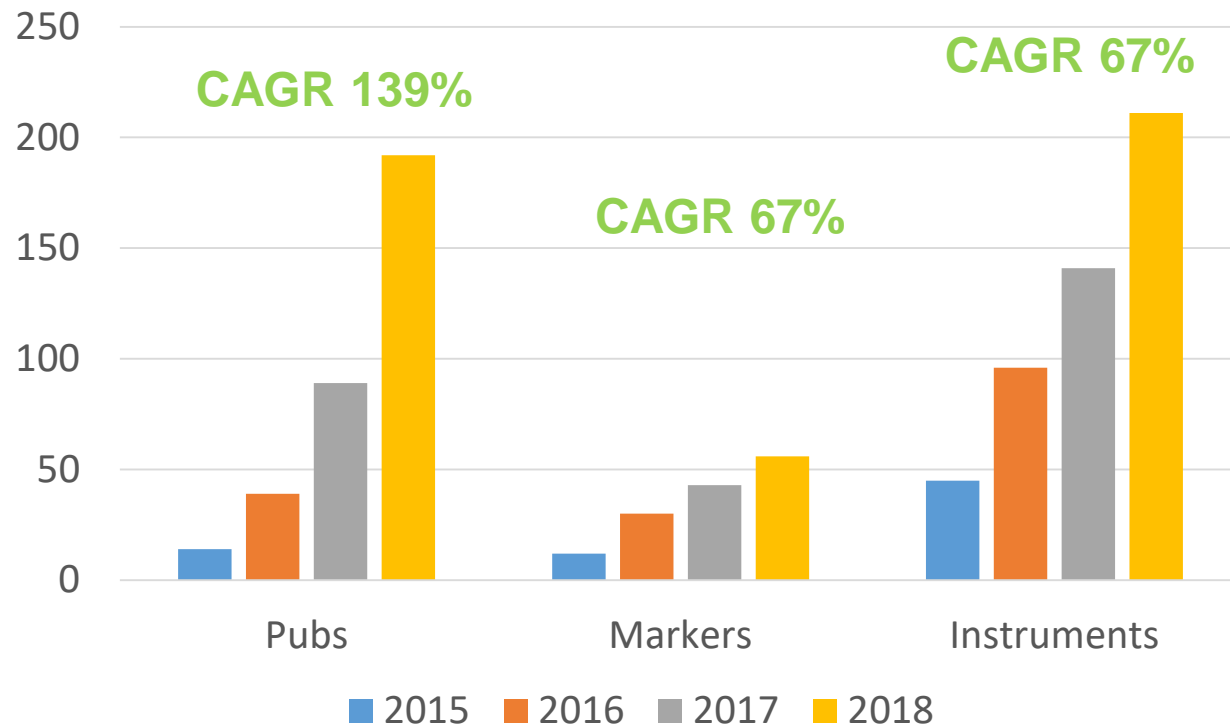
BREAKING NEWS
NEW BLOOD TEST CAN PREDICT ALZHEIMER'S DISEASE **LIVE CNN**



2019



Neurology Momentum



- Strongest **growth in neurology** RUO franchise with **accelerating publications** 2018
- **Nf-L, amyloid beta, tau**, and other markers showing tremendous **potential for key clinical applications** in top peer-reviewed pubs
- Strong network of **world-leading KOLs**
- Inbound **FDA interest** (Nf-L); recent **breakthrough device exemption** for AB40/42 mass spec test for Alzheimer's
- **Media, patient advocacy, and public attention** to promise of blood-based neurology tests (CNN, Forbes, Bloomberg, Washington Post, GMA, etc.)
- **Deep adoption** by leading academic and pharma



RESEARCH PUBLICATIONS ON NFL



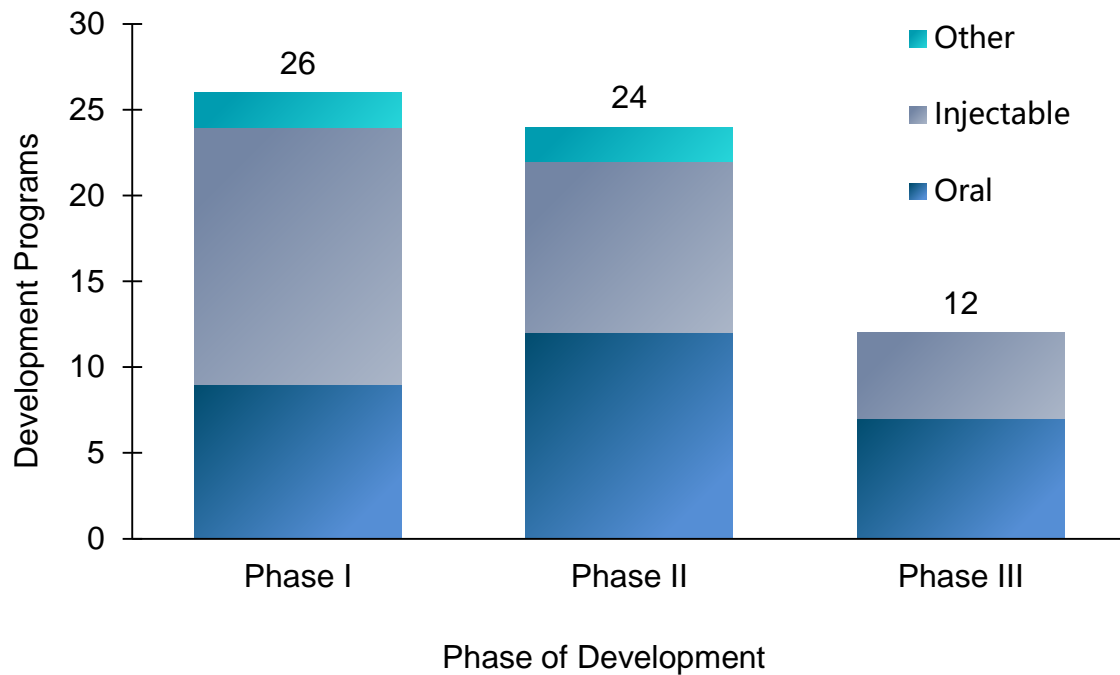
Abstract: Neurology 2019: Blood NfL levels are associated with clinical and MRI-related measures of disease activity and neuroaxonal damage and have prognostic value. Our results support the utility of blood NfL as an easily accessible biomarker of disease evolution and treatment response.

Editorial
Neurofilament light chain:
An important step toward
a disease biomarker in
multiple sclerosis
Page 451

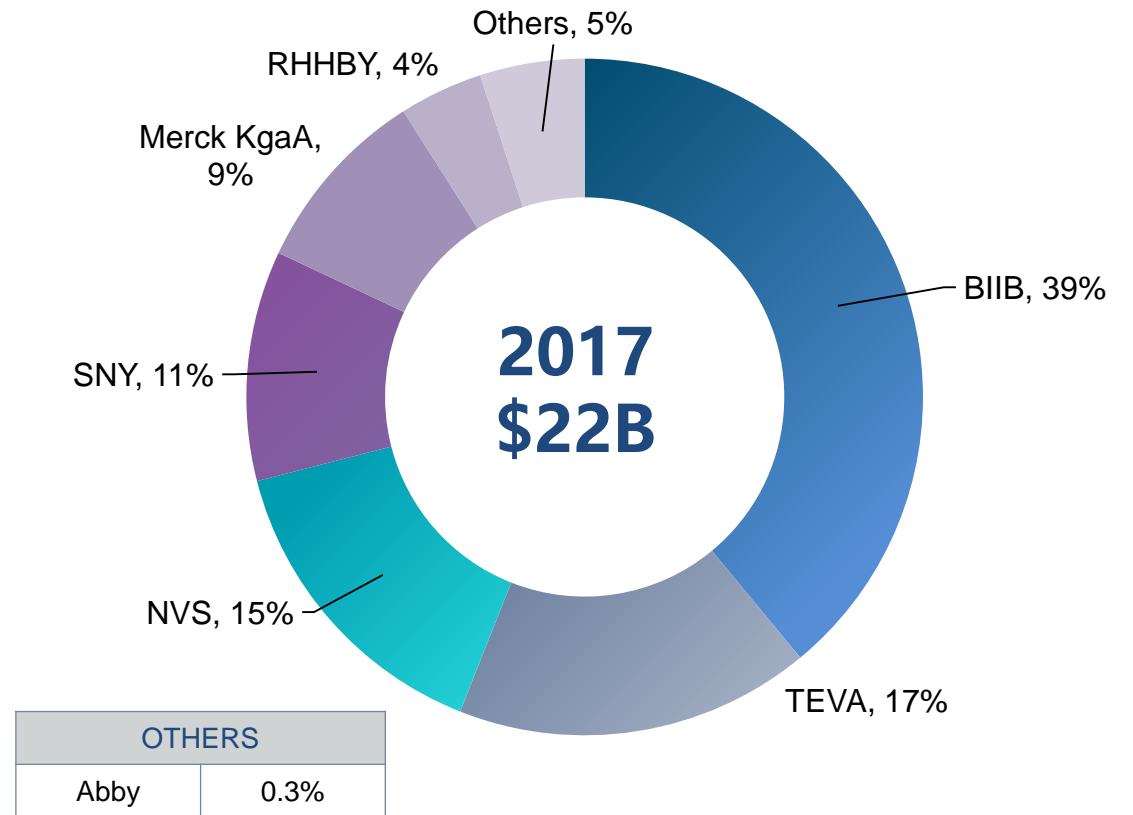
>\$22B Spent Annually on MS Drugs with 62 Active Clinical Trials

MULTIPLE SCLEROSIS* THERAPIES IN DEVELOPMENT

N=62 Drug Trials
Estimate 10 already using sNF-L



MULTIPLE SCLEROSIS CATEGORY MARKET SHARE BY & SALES



*Excludes non-industry sponsored trials, active-not yet recruiting, enrolling by invitation, or unknown status trials

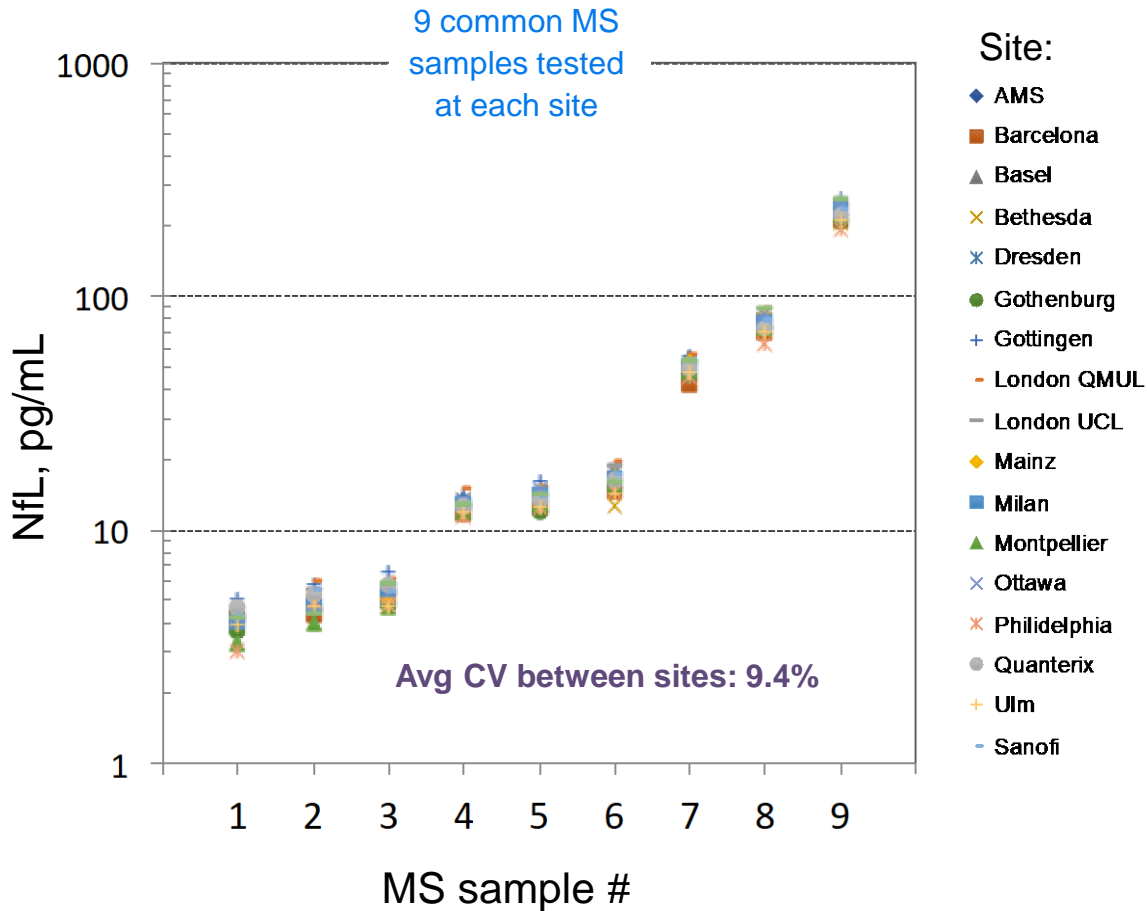
Source: Health Advances commissioned research, 2018

Simoa NfL Multicenter Analytical Validation - 17 sites across Europe and North America

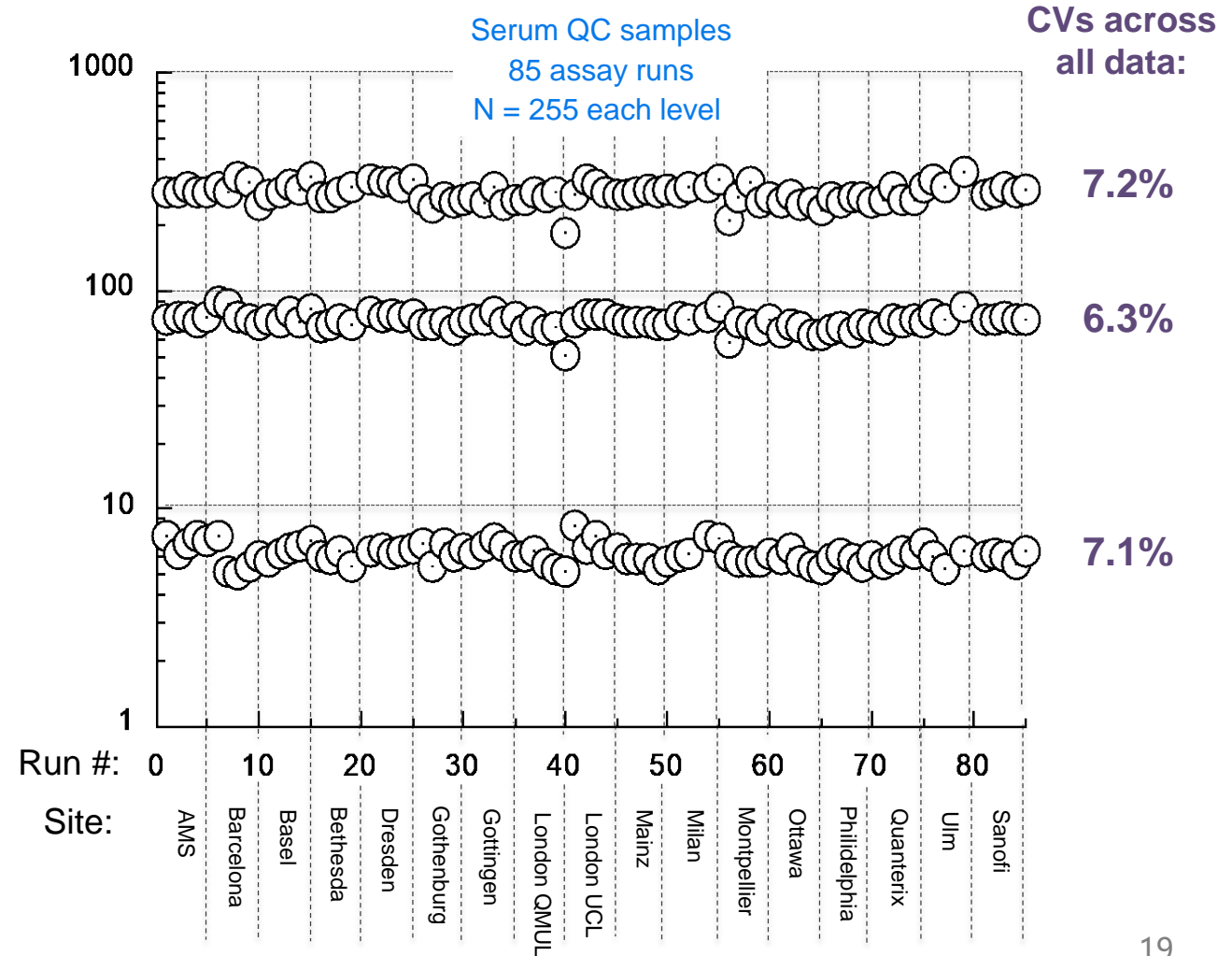
	Location	Investigator	Study Site
1	Amsterdam	Dr. Charlotte	Neurochemistry Laboratory, Amsterdam University
2	Barcelona	Dr. Manuel	Laboratori de Neuroimmunologia Clinica Centre
3	Basel	Prof Jens Kuhle, Dr. Zuzanna	Department Biomedicine, Univ Hospital Basel, Switzerland
4	Dresden	Dr. Katja Akgün Dr. Ziemssen, Tjalf	Neuroimmunological lab, Center of Clinical Neuroscience, Dresden, Germany
5	Göteborg	Prof. Kaj Blennow Prof. Henrik	Clinical Neurochemistry Lab, Mölndal Hospital, Mölndal, Sweden
6	Göttingen	Prof. Wolfgang Dr. Niels Kruse	Institut für Neuropathologie, Universitätsmedizin Göttingen, Germany
7	London	Dr. Lucia Bianchi Prof. Gavin	Dept of Neuroscience & Trauma Blizard Institute Queen Mary Univ of London, UK
8	London	Dr. Amanda Prof. Henrik	The DRI Fluid Biomarker Laboratory at University College London, United Kingdom
9	Mainz	Prof. Stefan Bittner	Klinik für Neurologie, Universitätsmedizin Mainz,
10	Milan	Dr. Comi Giancarlo Prof. Roberto Furlan	Clinical Neuroimmunology Unit - Institute of Experimental Neurology, Milan, Italy
11	Montpellier	Prof. Markus Otto Dr. Patrick Oeckl	Hôpital St Eloi, Montpellier, France
12	Ulm	Prof. Markus Otto Dr. Patrick Oeckl	University of Ulm, Ulm, Germany
13	Bethesda	Dr. Ruturaaj Dr. Bibi Bielekova	National Institutes of Health, Bethesda, MD
14	Ottawa	Dr. Simon Thebault Dr. Freedman, Mark Dr. Booth, Ronald	MS Clinical Ottawa Hospital University of Ottawa, Ottawa ON Canada
15	Philadelphia	Dr. Marcus Handy Dr. Amit Bar-Or	Perelman School of Medicine, University of Pennsylvania, Department of Neurology, Philadelphia,
16	Lexington	Kevin Hrusovsky Dr. David Wilson	Quanterix Corp, Lexington MA
17	Framingham	Dr. Matthew Dr. Martin Kramer	Sanofi Genzyme, Framingham MA



Multiple Sclerosis Sample Results – all sites

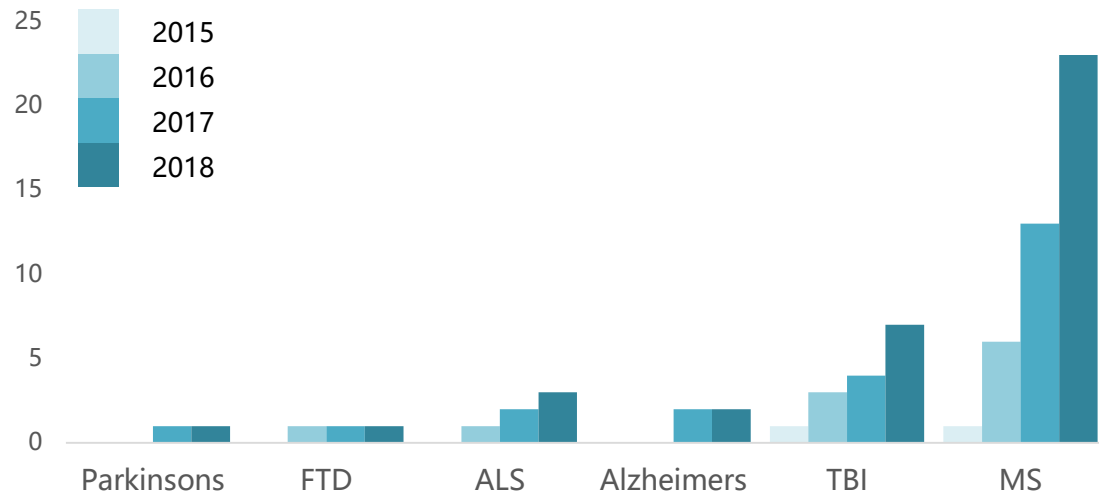


Assay reproducibility – all sites



Emerging Clinical Biomarker: Neurofilament Light (NfL)

NFL PUBLICATIONS

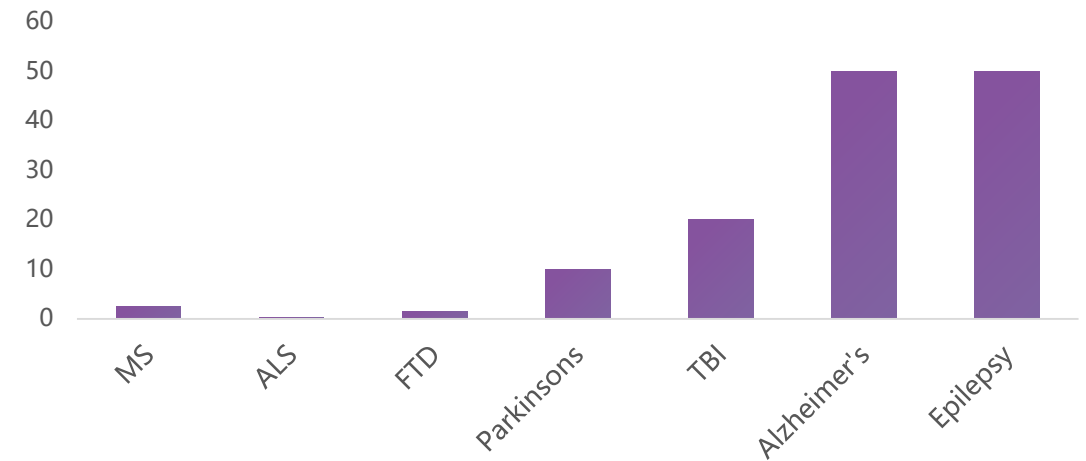


STUDIES CONFIRM NFL CLINICAL UTILITY:

- Disease activity monitoring
- Drug efficacy monitoring
- Relapse/severity prognostic

Majority of published data obtained with Simoa NfL

WW DISEASE INCIDENCE (MILLIONS)



MULTIPLE SCLEROSIS:

- Avg. age of onset: 34 yrs; avg. life expectancy after onset: 30 yrs
- Standard of care: MRI 1-2X/yr
- NfL as MRI replacement: 3.5M tests/yr

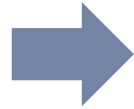
Clinical Validation of NfL for MS is a Key Beachhead

Digital Biomarkers Disruption Paradigm: Alzheimer's Disease Opportunity

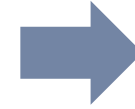
Today



Alzheimer's disease not diagnosed until symptoms



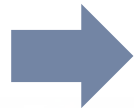
Imaging expensive and often not covered



Therapies for later stage disease have limited effectiveness

Tomorrow

Detect or screen in annual blood test



Follow on Image or blood test to diagnose



Therapy delivered sooner with less dosing / toxicity. Blood test monitors progression



QTRX Taking Aim at Alzheimer's Disease with Simple Blood Test

JAMA Neurology | Original Investigation
Association of Plasma Neurofilament Light With Neurodegeneration in Patients With Alzheimer Disease
Niklas Mattsson, MD, PhD, Ulf Andreasson, PhD, Henrik Zetterberg, MD, PhD, Kaj Blennow, MD, PhD, for the Alzheimer's Disease Neuroimaging Initiative

IMPORTANCE Existing cerebrospinal fluid (CSF) or imaging (tau positron emission tomography) biomarkers for Alzheimer disease (AD) are invasive or expensive. Biomarkers based on standard blood tests could be used in clinical practice. Plasma neurofilament light (NfL) is a blood-based biomarker for neurodegeneration.

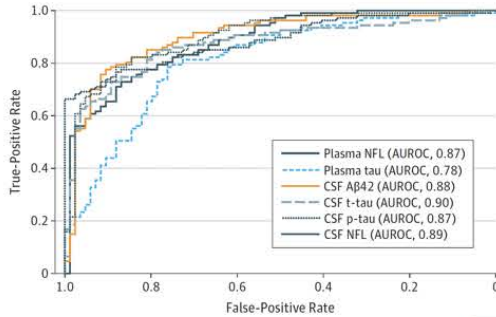
OBJECTIVE To test whether plasma NfL is associated with cognitive decline, other clinical outcomes, and brain atrophy in patients with AD.

DESIGN, SETTING, AND PARTICIPANTS A cross-sectional study was used to measure plasma NfL in patients with mild cognitive impairment (MCI) and AD. The study was conducted at the Alzheimer's Disease Neuroimaging Initiative sites from February 13, 2012, to the present.

MAIN RESULTS AND CONCLUSIONS Plasma NfL was associated with cognitive decline, other clinical outcomes, and brain atrophy in patients with AD. Plasma NfL was also associated with AD pathology, including amyloid- β and tau.

CONCLUSIONS Plasma NfL is a blood-based biomarker for neurodegeneration in patients with AD.

2018



Plasma NfL exhibits high diagnostic accuracy for Alzheimer's Disease (AUC 0.87)

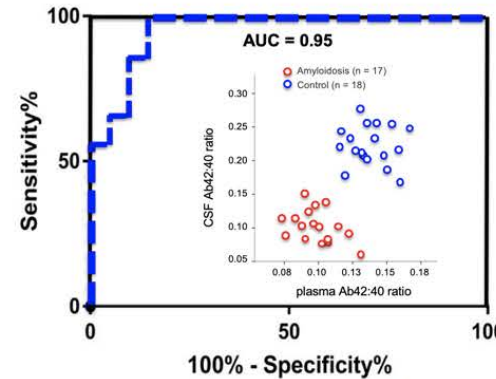
ALZFORUM
NETWORK FOR A CURE

With Sudden Progress, Blood A β Rivals PET at Detecting Amyloid

Series - Alzheimer's Association International Conference 2018: Part 12 of 16: 4

ARTICLE COMMENTS REFERENCES FURTHER READING

2018



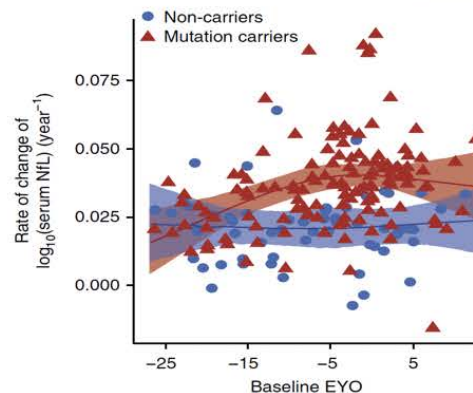
Plasma A β 2/A β 40 ratio exhibits high diagnostic accuracy for amyloid positive patients (AUC 0.95)

nature medicine LETTERS
<https://doi.org/10.1038/s41591-018-0104-3>

Serum neurofilament dynamics predicts neurodegeneration and clinical progression in presymptomatic Alzheimer's disease

Oliver Preische^{1,2,3}, Stephanie A. Schultz^{1,2,3}, Anja Apel^{1,2,3}, Jens Kuhle⁴, Stephan A. Kaeser^{1,2}, Christian Barro⁵, Susanne Gräber¹, Elke Kuder-Buletta¹, Christian LaFougere¹, Christoph Laske^{1,2}, Jonathan Rogglen^{1,4}, Johannes Levin^{1,4}, Colin L. Masters^{1,4}, Ralph Martins^{1,4}, Peter R. Schofield^{1,4,5,6,7}, Martin N. Rossor^{1,4}, Neill R. Graff-Radford^{1,4}, Stephen Salloway^{1,4}, Bernardino Ghetti^{1,4}, John M. Ringman^{1,4}, James M. Noble^{1,4}, Jasmeer Chhatwal^{1,4}, Alison M. Goate^{1,4}, Tammie L. S. Benzinger^{1,4}, John C. Morris^{1,4}, Randall J. Bateman^{1,4}, Guoqiao Wang^{1,4}, Anne M. Fagan^{1,4}, Eric M. McDade^{1,4}, Brian A. Gordon^{1,4}, Mathias Jucker^{1,2,3} and Dominantly Inherited Alzheimer Network^{1,2,3}

2019



Serum NfL predicts clinical progression in pre-symptomatic Alzheimer's disease 16 years before onset.

NEW BLOOD TEST CAN PREDICT ALZHEIMER'S DISEASE



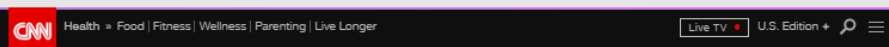
Every 65 SECONDS SOMEONE IN THE UNITED STATES DEVELOPS THE DISEASE

Every 3 SECONDS SOMEONE IN THE WORLD DEVELOPS THE DISEASE

5.8 MILLION AMERICANS ARE LIVING WITH ALZHEIMER'S. BY 2050, THIS NUMBER IS PROJECTED TO RISE TO NEARLY 14 MILLION.

44 MILLION PEOPLE ARE LIVING WITH ALZHEIMER'S WORLDWIDE

Blood Test May Detect Alzheimer's In Patients 16 Years Before Symptoms Appear



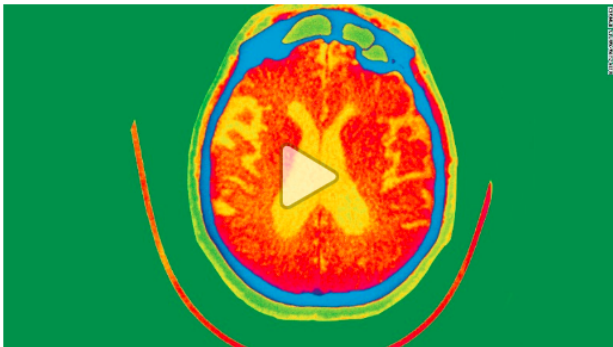
Blood test could detect Alzheimer's up to 16 years before symptoms begin, study says

By Nina Avramova, CNN
Updated 2:45 PM ET, Tue January 22, 2019



More from CNN

- Passengers spend 14 hours stuck on grounded flight
- UFC's Allen Crowder Has 'No Hard Feelings' Toward Greg Hardy...



How to prevent Alzheimer's disease 03:33

(CNN) — A simple blood test could predict if a patient will develop Alzheimer's disease up to 16 years before symptoms begin, a new study finds.

By measuring changes in the levels of a protein in the blood, called neurofilament light chain (NFL), researchers believe any rise in levels of the protein could be an early sign of the disease, according to the study published Monday in the journal Nature Medicine.

NFL is a "marker in the blood which gives an indication of nerve cell loss in the brain," explained lead researcher Mathias Jucker, professor of cell biology of neurological diseases at the German Center for Neurodegenerative Diseases. "The more neurofilament you have in the blood, the more brain damage you have," he said.



Serum neurofilament dynamics predicts neurodegeneration and clinical progression in presymptomatic Alzheimer's disease

Oliver Preische^{1,2,21}, Stephanie A. Schultz^{3,21}, Anja Apel^{1,2,21}, Jens Kuhle⁴, Stephan A. Kaeser^{1,2}, Christian Barro⁴, Susanne Gräber¹, Elke Kuder-Buletta¹, Christian LaFougere¹, Christoph Laske^{1,2}, Jonathan Vögler^{5,6}, Johannes Levin^{5,6}, Colin L. Masters⁷, Ralph Martins^{8,9}, Peter R. Schofield^{10,11}, Martin N. Rossor¹², Neill R. Graff-Radford¹³, Stephen Salloway¹⁴, Bernardino Ghetti¹⁵, John M. Ringman¹⁶, James M. Noble¹⁷, Jasmeer Chhatwal¹⁸, Alison M. Goate¹⁹, Tammie L. S. Benzinger²⁰, John C. Morris³, Randall J. Bateman³, Guoqiao Wang³, Anne M. Fagan³, Eric M. McDade³, Brian A. Gordon³, Mathias Jucker^{1,2*} and Dominantly Inherited Alzheimer Network²⁰

Neurofilament light chain (NFL) is a promising fluid biomarker of disease progression for various cerebral proteopathies. Here we leverage the unique characteristics of the Dominantly Inherited Alzheimer Network and ultrasensitive immunoassay technology to demonstrate that NFL levels in the cerebrospinal fluid (n = 187) and serum (n = 405) are correlated with one another and are elevated at the presymptomatic stages of familial Alzheimer's disease. Longitudinal, within-person analysis of serum NFL dynamics (n = 196) confirmed this elevation and further revealed that the rate of change of serum NFL could discriminate mutation carriers from non-mutation carriers almost a decade earlier than cross-sectional absolute NFL levels (that is, 16.2 versus 6.8 years before the estimated symptom onset). Serum NFL rate of change peaked in participants converting from the presymptomatic to the symptomatic stage and was associated with cortical thinning assessed by magnetic resonance imaging, but less so with amyloid-β deposition or glucose metabolism (assessed by positron emission tomography). Serum NFL was predictive for both the rate of cortical thinning and cognitive changes assessed by the Mini-Mental State Examination and Logical Memory test.

Thus, NFL dynamics in serum predict disease progression and brain neurodegeneration at the early presymptomatic stages of familial Alzheimer's disease, which supports its potential utility as a clinically useful biomarker.

In most neurodegenerative diseases, brain changes manifest many years before clinical symptoms become apparent. In Alzheimer's disease, presymptomatic changes in the brain include cortical thinning and neuropathological depositions containing amyloid-β and tau. These pathological changes can be assessed by magnetic resonance imaging (MRI), positron-emission tomography (PET), and measurement of amyloid-β and tau protein levels in the cerebrospinal fluid (CSF)¹⁻⁴. However, CSF collection is invasive and imaging modalities are expensive; therefore, they are not well suited to routine clinical practice. Blood biomarkers for the presymptomatic phase of Alzheimer's disease are largely lacking, although recent progress in the analysis of amyloid-β, tau, and neurofilament light chain (NFL) in the blood have been reported⁵⁻¹⁰.

NFL is a component of the axonal cytoskeleton and is primarily expressed in large-caliber myelinated axons^{11,12}. Changes of NFL in bodily fluids have been linked to brain damage and brain atrophy in mouse models and multiple neurological disorders including

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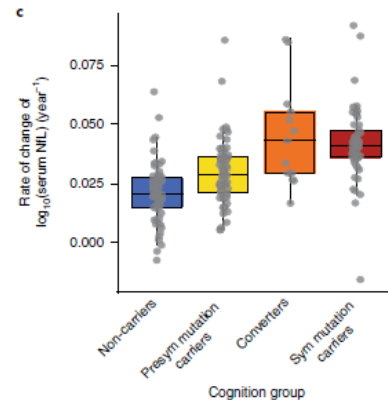
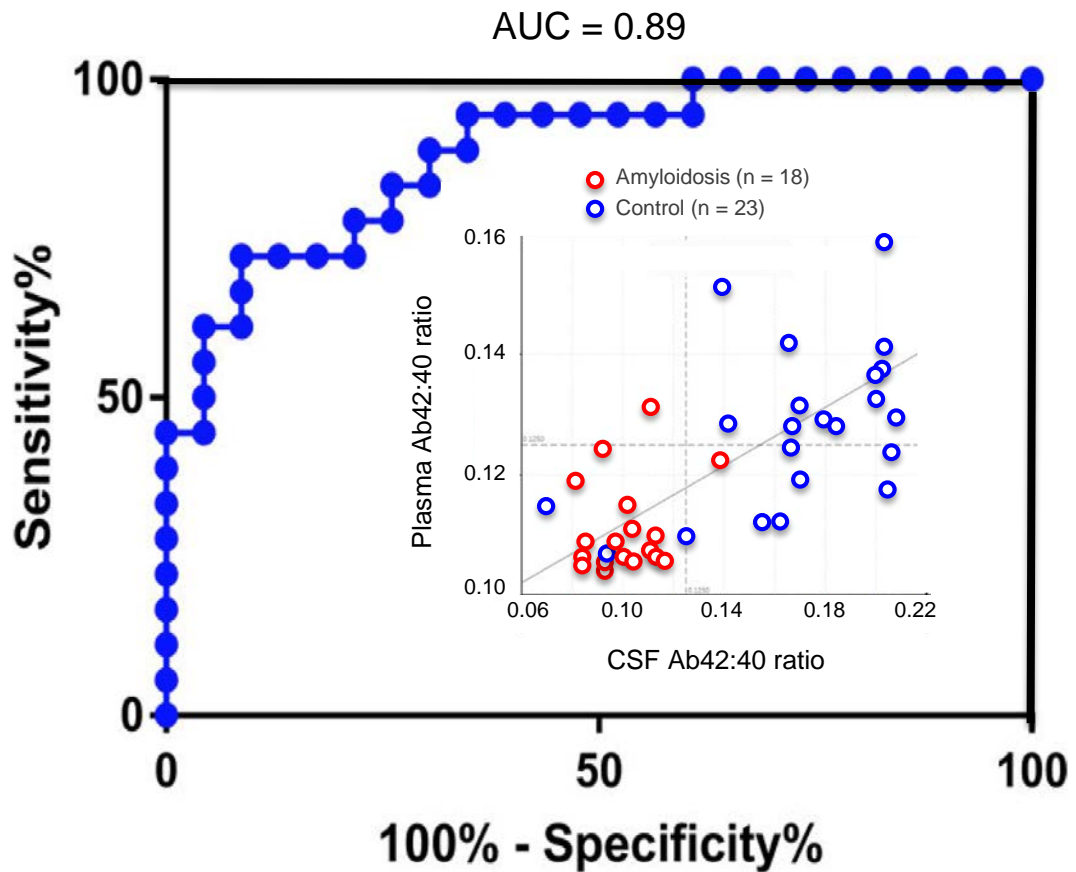


Fig. 3 | Rate of change per year in serum NFL in mutation carriers mirrors rate of change in cortical thinning. a, Relationship between estimated annual rate of change in serum NFL and estimated annual rate of change in precuneus cortical thickness for non-carriers, presymptomatic (Presym) mutation carriers, and symptomatic (Sym) mutation carriers (including converters to the symptomatic phase, see Fig. 2c). Results from LMEMs revealed

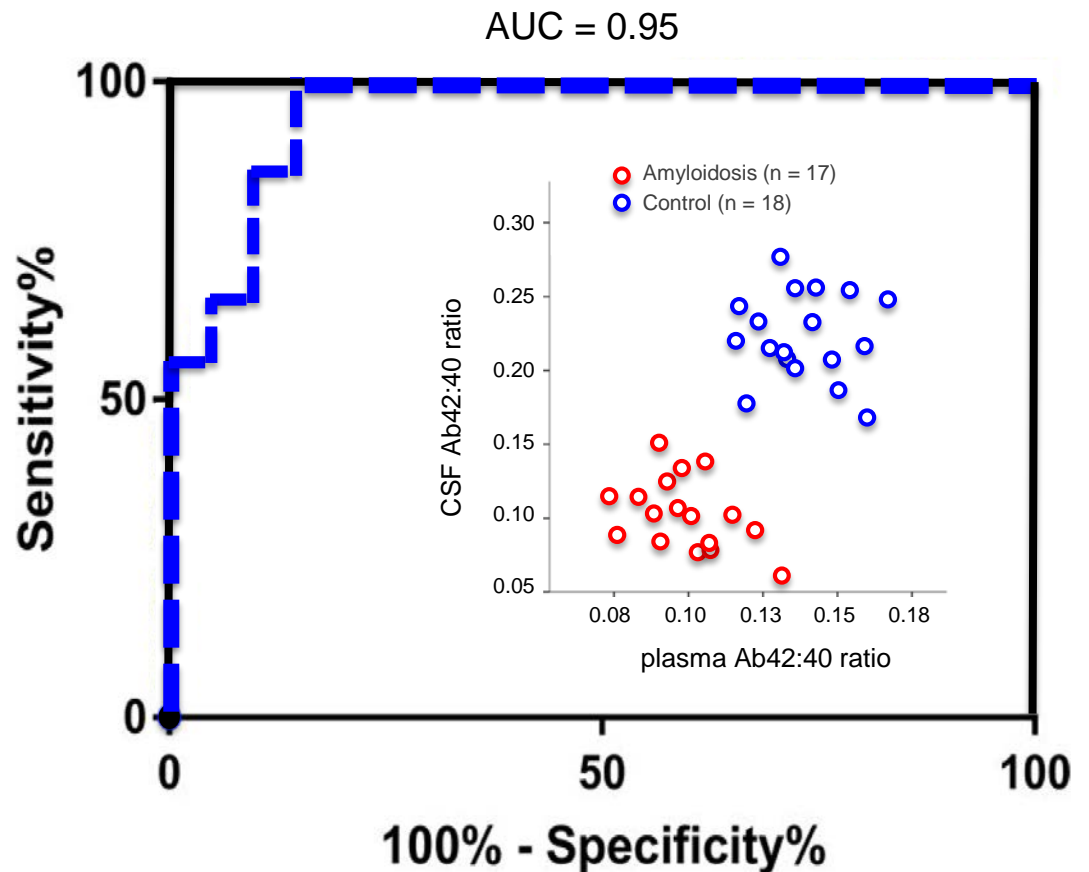
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ROC analysis on similarly powered preliminary studies

Mass spectrometry¹



Simoa²



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2. Thijssen et al, *AAIC* 2018



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