A new class of medicines for brain aging and cognitive enhancement

We are a clinical-stage company developing a new class of drug – **a cognitive-enhancing, anti-anxiety medicine**.

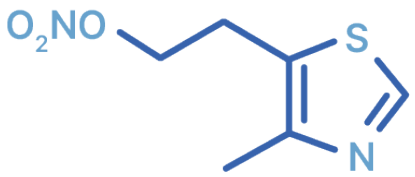
This type of drug may be efficacious for **many different neurological diseases**, and may also help otherwise healthy people to reduce anxiety and **slow brain aging**.

Contacts

CEO: Doug Cowart, PharmD
dcowart@revivotherapeutics.com

Director: sebastian@pantheonbio.org

Executive Summary



NMZ (RIV-5061)

Revivo is developing a cognitive-enhancing anxiolytic drug that works via **4 mechanisms of action**:

- The nitric oxide – cGMP – CREB pathway (**neuroplasticity**)
- Cerebral vasodilation (**enhanced blood & nutrient flow**)
- Neuroprotective $GABA_A$ (α1β2γ2) potentiation (**excitotoxicity**)
- Reduced neuroinflammation (**TNFa, microglial activation**)

Our lead compound, RIV-5061, **enhances cognition and reduces neuronal excitability** – the first nitric oxide prodrug to cross the blood-brain barrier, and it enhances animal cognition at brain levels as low as *1 nanomolar* (nM). RIV-5061 also **outperforms** the FDA-approved cognitive enhancer Aricept (donepezil) in multiple animal models.

RIV-5061 was well tolerated in Phase 1. We have an IND ready for FDA for a Ph1 study with a new *controlled-release formulation*. RIV-5061 is an analog of the drug *chlormethiazole* (CMZ), which is marketed worldwide.

Strong patent portfolio on composition of matter (NCE and formulations) and methods of use for multiple disease indications.

Executive Summary

Management Team: >150 years of combined experience in Big Pharma and biotech. Our team previously built and sold Cardioxyl to Bristol Myers Squibb in 2015, the largest deal of the year -- for a total deal size of $2B ($300M upfront) -- after raising $52M from a syndicate led by NEA & OrbiMed.

"**Pipeline in a pill**" -- indication label expansion potential beyond MCI to epilepsy, TBI, glaucoma, rare genetic diseases of the CNS (Rett Syndrome, Down Syndrome), psychiatric disorders (anxiety, OCD), various dementias.

Funding to date: $15M of grants to our scientific founder on nomethiazoles. Revivo has raised capital from private investors, NIH, and ADDF. Non-dilutive funding available for dementia (NIH) and TBI (DARPA/DoD).

Development timeline: IND ready to file. Phase 2 completion and possible trade sale by 1H2023. Est. total cost to reach PoC on the first indication: <$10M.

Funding required: $3-5M to reach early efficacy readout (Ph1b/2a) – plus opportunities for non-dilutive grants.

Table of Contents

Revivo's management team has >150 years of combined biopharma experience

Doug Cowart – CEO
Dr. Cowart has over 30 years of experience in drug development. He was a clinical pharmacologist and assistant professor of pharmacy and pharmacology at the Medical University of South Carolina, where he was PI on 16 clinical trials. He was previously Senior Director of CVD at Otsuka and EVP of Clinical & Regulatory at Cardioxyl.

Robert Venuti – VP, clinical development
Mr. Venuti has over 30 years of clinical development experience. He has served as Assistant Director, Clinical Development, SmithKline Beecham Pharmaceuticals and held many senior management roles.

J. Craig Hartman – VP, clinical development
Dr. Hartman has 30 years of biopharmaceutical research and pre-clinical development experience. He served in leadership/development positions at Baxter, Pharmacia Upjohn, Myogen, Gilead, and more.

Vince Kalish – SVP chemistry & preclinical development
Dr. Kalish has 30 years of experience in preclinical development, patents and project leadership. He served as CSO for Bluefield Innovations and held senior roles for Agouron Pharmaceuticals and other companies.

Doris Cully – VP, molecular pharmacology
Dr. Cully has 30 years' experience working in both large and small pharmaceutical companies, including prior VP of Preclinical Research at Merck and VP of Molecular Pharmacology at Cardioxyl.

Jack Harley – operations analyst
Mr. Harley has research and lecturing experience in neurodegeneration and aging at the Warneford Hospital, University of Oxford and held a senior role at YC-backed health tech startup Mindset Health.

Full length bios available in the Appendix section

The Cardioxyl Story: Our team's prior M&A exit

The management team of Revivo is the same team from Cardioxyl Pharmaceuticals.

In 2015, BMS acquired Cardioxyl for $2B, with a $300M upfront payment. [1]

The asset was a Ph2 nitroxyl prodrug for CVD.

Bristol-Myers Squibb

Cardioxyl PHARMACEUTICALS

The Revivo team has been working for 'sweat equity' thus far, not taking salaries, because we believe strongly in the asset.

Investors included NEA, Orbimed, The Aurora Funds, and Osage University Partners.

$52M in total funds raised.

NEA New Enterprise Associates

OrbiMed Healthcare Fund Management

AURORA FUNDS®

OSAGE UNIVERSITY PARTNERS

1. "BMS to Buy Cardioxyl for Up to $2.075B." (2015) https://www.genengnews.com/topics/drug-discovery/bms-to-buy-cardioxyl-for-up-to-2-075b/

Revivo's Scientific Advisory Board

Gregory R. J. Thatcher, PhD

Gregory Thatcher is the Inventor of Nomethiazole Class.

He is Professor & Endowed Chair in Drug Discovery, Dept. of Pharmacology & Toxicology, College of Pharmacy, University of Arizona. While at the University of Illinois in Chicago (UIC), Gregory acted as founder and leader of the Translational Oncology Program in the University of Illinois Cancer Center and co-director of the NIA Predoctoral Training Program in Alzheimer's Disease & Related Dementia.

Brian M Bennett, PhD

Brian Bennet is a Professor in the Department of Biomedical and Molecular Sciences and Centre for Neuroscience Studies at Queen's University. He is the associate Dean of Graduate and Postdoctoral Education in the Faculty of Health Sciences, and Director of the MD/PhD-MD/Master's Program at Queen's University. Brian Bennet has developed new mouse models that reflect pathological changes associated with Alzheimer's disease, and also exhibit age-related cognitive impairment.

Ottavio Arancio, MD, PhD

Ottavio Arancio is a professor of pathology and cell biology at Columbia University. Dr. Arancio contributed to the characterization of the mechanisms of learning in both normal conditions and during neurodegenerative diseases. Dr. Arancio has held Faculty appointments at Columbia University and NYU School of Medicine and is currently running the laboratory in Neurophysiology and Behavior of the Taub Institute.

Narayan Bhat, PhD

Narayan Bhat is a professor in the faculty of neuroscience at the Medical University of South Carolina. Narayan Bhat's laboratory Cellular and molecular mechanisms of neurodegeneration with a particular emphasis on neuroinflammation and cerebrovascular dysfunction. He has served on Editorial Boards of scientific journals including JAD, ARS, J. Neurochem. and J. Biol. Chem. and participated in numerous grant review study sections including NIH, NSF, VA Merit review, ADDF, Alzheimer Association as a regular or ad-hoc member.

Revivo's Clinical Advisory Board

James R. Burke, MD, PhD
Professor of Neurology, Professor in Psychiatry and Behavioral Sciences Medical Director, Neurology Clinical Research Unit, Duke University

David G Standaert, MD, PhD
Professor and Chair of Neurology, University of Alabama; Director, Center for Neurodegeneration and Experimental Therapeutics

Kathleen C. Smith, MD, PhD
Neurologist/clinician scientist whose dedicated to identifying, selecting new pharmaceuticals for development and shepherding them from early development stages onto the market

Douglas McNair
Senior Advisor at Bill & Melinda Gates Foundation, responsible for innovations in mathematical modeling, decision support, and very-large-scale data mining as well as statistical support for multiple clinical trials

Judith Jaeger, PhD, MPA
President and Principal Scientist, Cognition Metrics

Kostas Lyketsos, MD, MHS
Elizabeth Plank Althouse Professor and Interim Director Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine

Andrew D. Krystal, MD
Director, Neurosciences Medicine Research Program and Professor of Psychiatry and Behavioral Sciences, Duke University Medical Center

Revivo's Board of Directors

Doug Cowart – CEO

Dr. Cowart has over 30 years of experience in drug development. He was a clinical pharmacologist and assistant professor of pharmacology and pharmacy at the Medical University of South Carolina, where he was PI on 16 clinical trials. He was previously Senior Director of CVD at Otsuka and EVP of Clinical & Regulatory at Cardioxyl. Dr Cowart brings deep expertise in clinical development and pharmacology.

Marc Goldberg – Director

Marc Goldberg is co-founder and Managing Partner of BioVentures Investors of Wellesley, Massachusetts. He brings almost 40 years of managerial and investment experience in life sciences and healthcare. He started his career at the Genetics Institute, one of the first major biotech companies in Boston. Mr. Goldberg earned his B.A. from Harvard College, his J.D. from Harvard Law School, and his M.B.A. from Harvard Business School.

Robert Bender - Chairman

Robert is an angel investor in Revivo, with >40 years experience in life sciences and healthcare. He was a venture investor (with Ventures West and Frederick Adler respectively) and was a senior manager at BIO LOGICALS, Neurochem, Immune Control Inc., Pharmena Inc., Atreus Pharma, and MSK Metrics. Robert was founding CEO of Neurochem (NASDAQ: NRMX), a company backed by Atlas Venture.

Sebastian Brunemeier – Board Observer & Neuroscience Advisor

Mr. Brunemeier was a Principal at Apollo Ventures, co-founder of Samsara Therapeutics and Cambrian Biopharma. He holds MSc degrees in Molecular Neuroscience and Life Science Business Management from the University of Amsterdam, DPhil/PhD training at Oxford & Scripps (neuroscience and biochemistry). He is an advisor to McKinsey & Company and served as a trustee of the British Society for Research on Aging

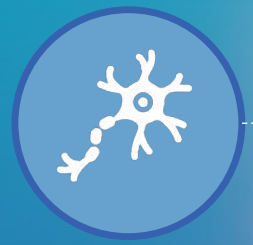
Full length bios available in the Appendix section

Dual Acting Mechanism of Nomethiazoles

Nitric Oxide (NO) signaling

Increases cerebral blood flow

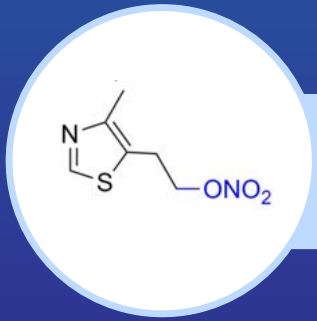
Reduces neuroinflammation



CREB signaling

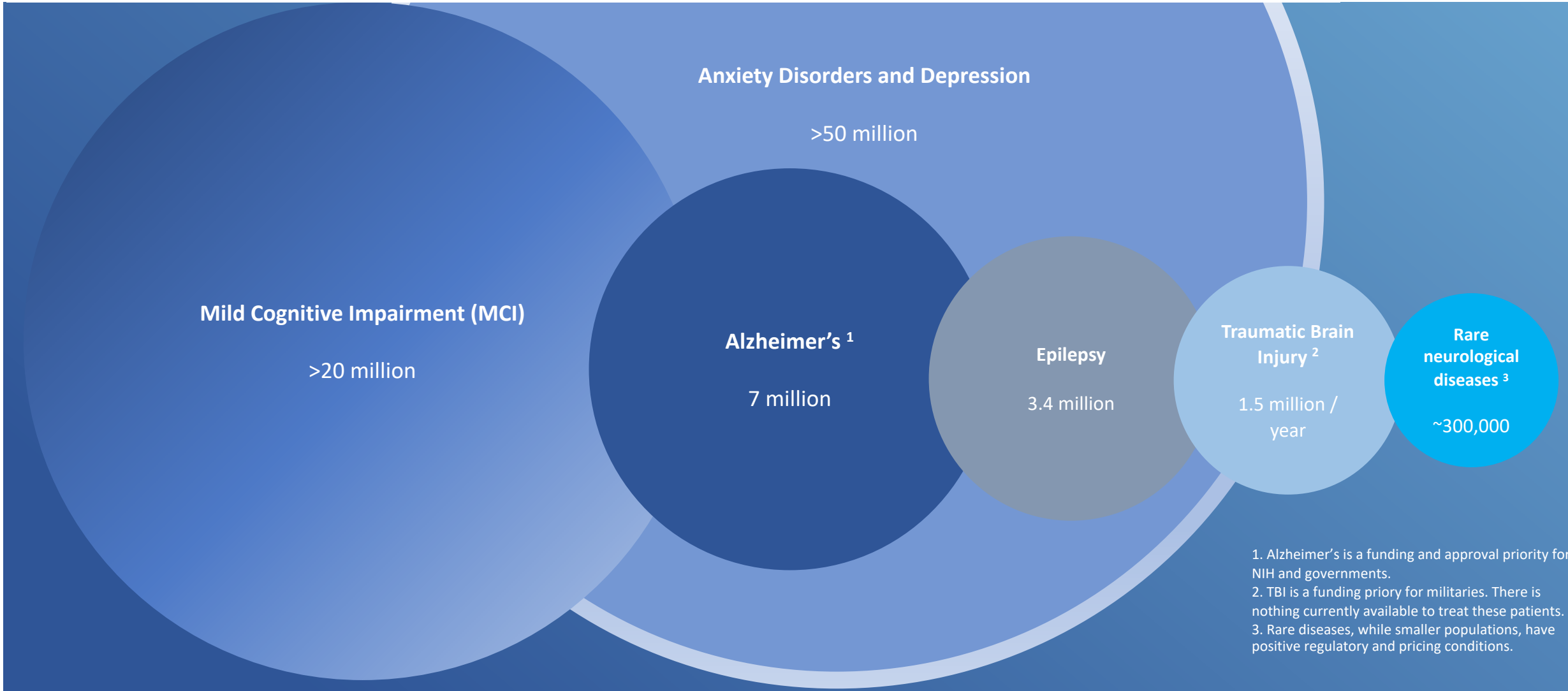
Enhances learning & memory

Restores neuroplasticity



RIV-5061 is a Ph1-ready molecule that enhances cognitive function acutely in 11 animal models of disease, using a **new mechanism of action that has never before been applied to neurological indications**.

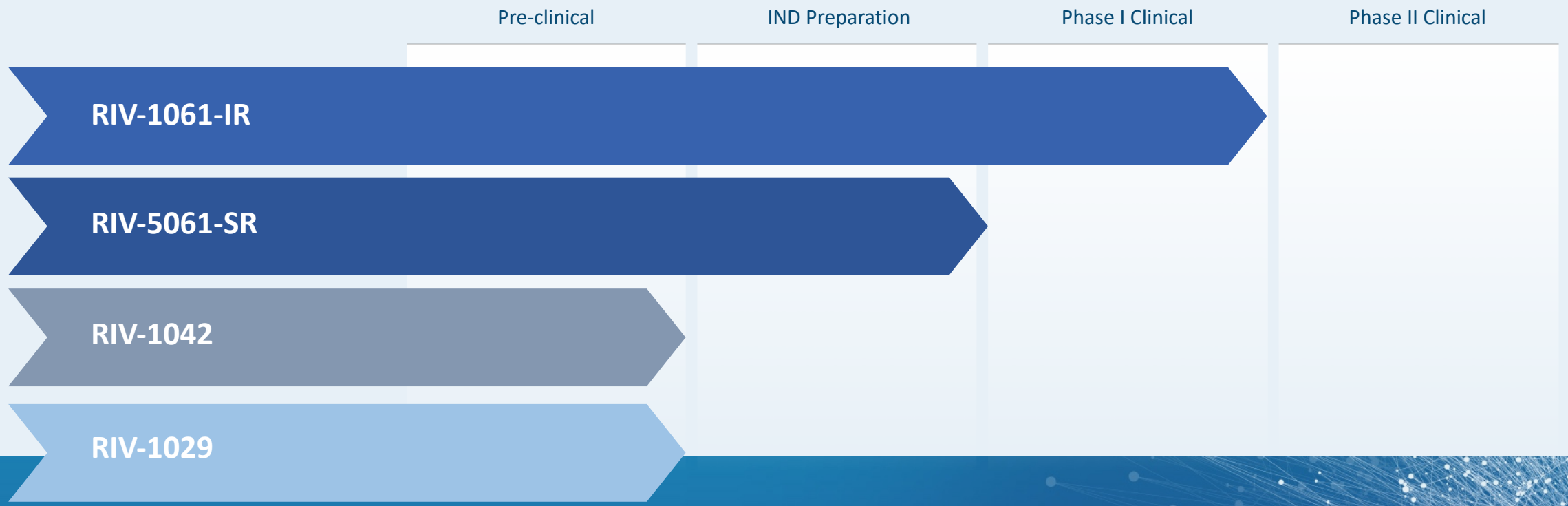
Clinical Indications – CNS “pipeline in a pill’ – label expansions



1. Alzheimer’s is a funding and approval priority for NIH and governments.
2. TBI is a funding priory for militaries. There is nothing currently available to treat these patients.
3. Rare diseases, while smaller populations, have positive regulatory and pricing conditions.

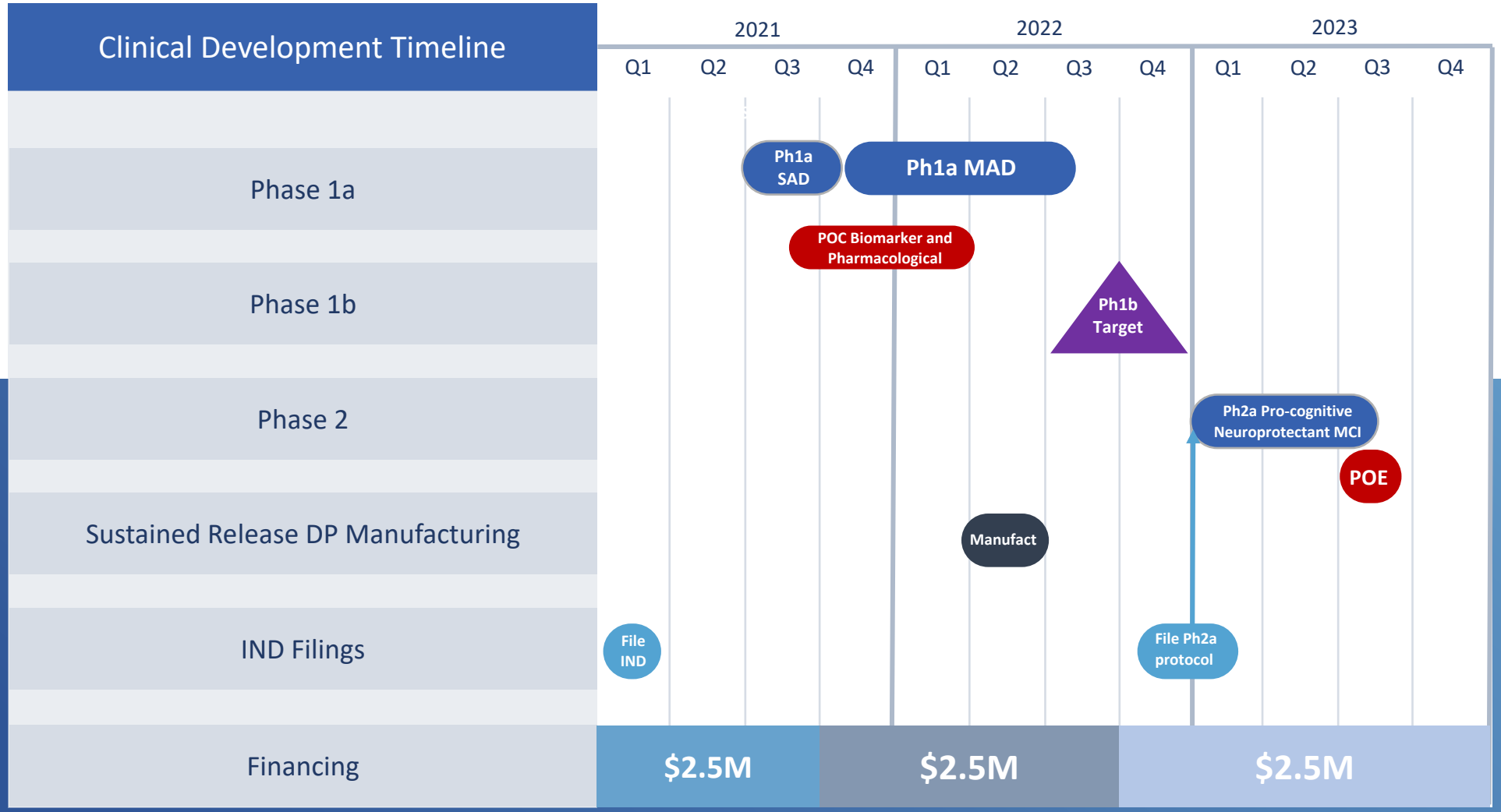
Data from CDC 2020. US population only.

Development Pipeline – multiple shots on goal



IR – immediate release
SR – sustained release

Timeline and cash requirements through Phase 2a – CNS Indications



High margin of safety on RIV-5061

- The prodrug, RIV-5061, releases nitric oxide and converts into RIV-6062, also known as *sulfurol* – a fragrance and food additive, which is **sufficiently safe as to be regulated as 'generally regarded as safe' (GRAS) by FDA**.
- Both nitric oxide and sulfurol have **attractive safety profiles**. Therefore, we expect RIV-5061 to be very well-tolerated.
- RIV-5061 is an analog of the FDA-approved drug *chlormethiozole* (CMZ), but without sedative properties. CMZ is an anaog of vitamin B1. CMZ has been in many clinical trials and has neuroprotective properties.
- **Returning to the clinic**: An 'immediate release' form of RIV-5061 has been tested in Ph1 studies, and was generally well tolerated, but showed an unfavorable pharmacokinetic profile. Revivo has developed a new, **sustained release formulation** of RIV-5061.

Structures of NMZ (RIV-5061) and HMZ (RIV-6062)

NMZ(RIV-5061) HMZ (RIV-6062)(GRAS)

Chlormethiozole: contains a chloride in place of the nitrate ester (ONO_2) of RIV-5061

New compound class: nomethiazoles

Nomethiozoles are a new class
of dual-action molecules that act as:

1.

Nitric oxide (NO) donors

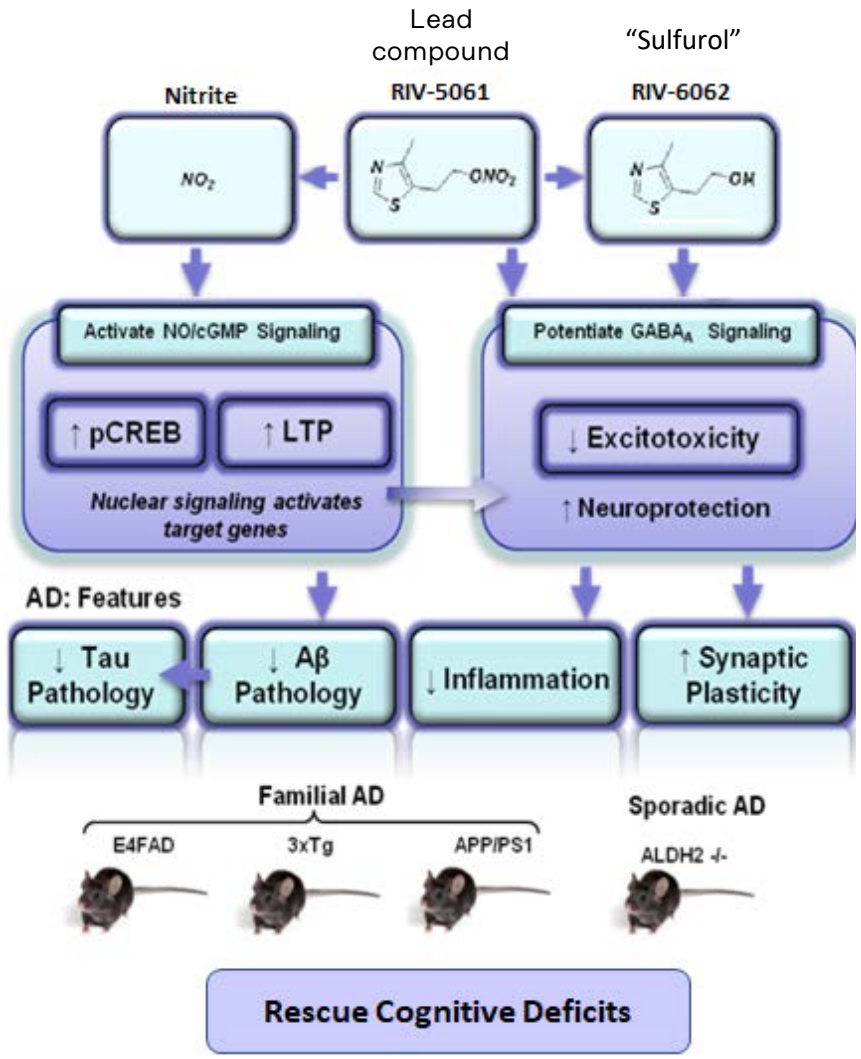
2.

$GABA_A$ positive allosteric modulators at the etomidate binding site.

They are pro-cognitive anxiolytics with demonstrated efficacy in **many different animal models of disease**, by multiple independent laboratories.

RIV-5061 is active at **1 mg/kg for enhancing memory (LTP)** in the mouse hippocampus.

Importantly, these compounds uniquely enhance cognitive function for **days, even after a single dose**!

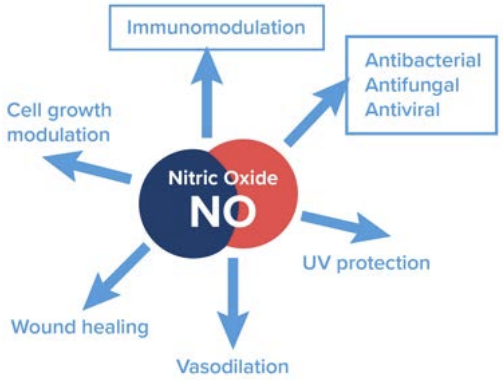


Revivo is targeting Nobel Prize-winning biology

Our drug acts on nitric oxide signaling and CREB: two areas of biology that won Nobel prizes

Nitric Oxide (NO): The first gaseous neurotransmitter

Nobel Prize in 1998

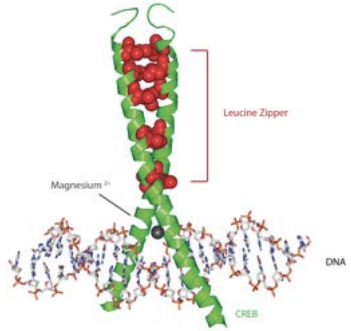


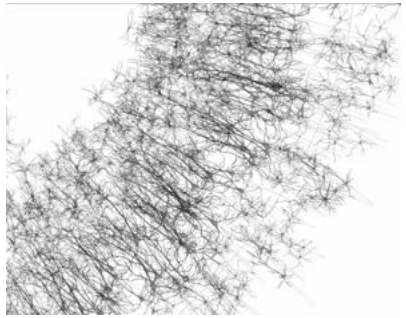
Awarded 'Molecule of the Year" award by the journal Science in 1992.

NO is a vasodilator, increasing blood flow to the brain. It also mediates both anti-inflammatory signaling and host-defense against pathogens. NO can enhance underactive neural activity as well as suppress overactivity (e.g., excitotoxicity).

Nitric oxide is also central to memory and learning, by binding guanylyl cyclase, resulting in cGMP production and ultimately activation of CREB.

CREB: the master regulator of memory and learning





Nobel Prize in 2000

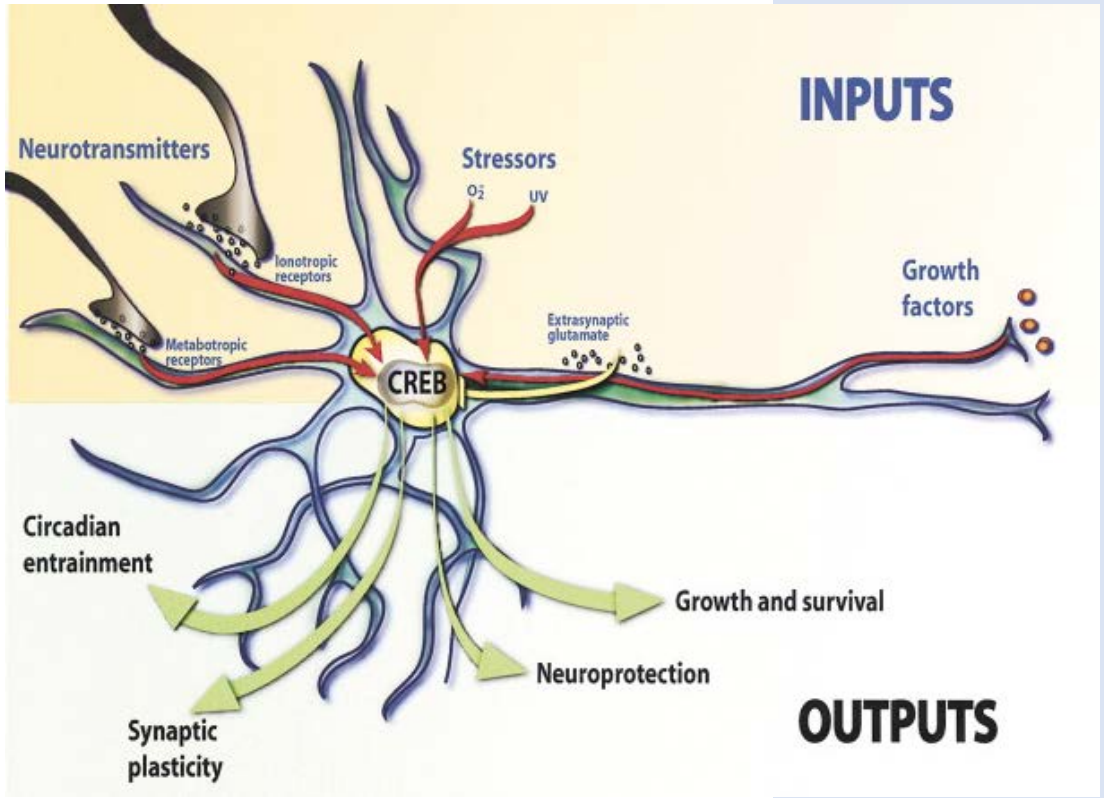
CREB is a transcription factor that, in neurons, governs memory and learning. One function of CREB is to convert short-term into long-term memory.

The Nobel Laureate for CREB, Dr Eric Kandel, argues that CREB activation may be the key to restoring memory during aging and disease.[1]

Enhancing CREB activity regions of the brain enhances memory and learning in aged animals.[2]

1. Kandel et al. (2003) **CREB, memory enhancement and the treatment of memory disorders: promises, pitfalls and prospects**. Expert Opinion in Therapeutic Targets.
2. Yu et al. (2017) **CREB overexpression in dorsal CA1 ameliorates long-term memory deficits in aged rats**. eLife.

CREB and cognition: the master regulator of memory



CREB activation enhances memory and learning, including the conversion of short term to long term memory. Alzheimer's patient brains reveal reduced CREB activity in the hippocampus. [1]

A transcriptome analysis of sporadic AD patient hippocampal tissue found CREB to be *the* centrally dysregulated node in the network. [2]

AAV-mediated CREB delivery to the CA1 region of the hippocampus in aged rats enhanced memory and learning. [3]

Another group found that increasing CREB function in the CA1 region of dorsal hippocampus rescues the spatial memory deficits in a mouse model of AD. [4]

1. Yamamoto & Riederer et al. (1999) **Impaired phosphorylation of cyclic AMP response element binding protein in the hippocampus of dementia of the Alzheimer type**. *Brain Research.*
2. Satoh & Arima et al (2009) **Molecular network analysis suggests aberrant CREB-mediated gene regulation in the Alzheimer disease hippocampus**. *Disease Markers*.
3. Yu & Disterhoft et al. (2017) **CREB overexpression in dorsal CA1 ameliorates long-term memory deficits in aged rats**. *eLife*
4. Yu & Josselyn et al. (2011). **Increasing CREB Function in the CA1 Region of Dorsal Hippocampus Rescues the Spatial Memory Deficits in a Mouse Model of Alzheimer's Disease**. *Neuropsychopharmacology*.

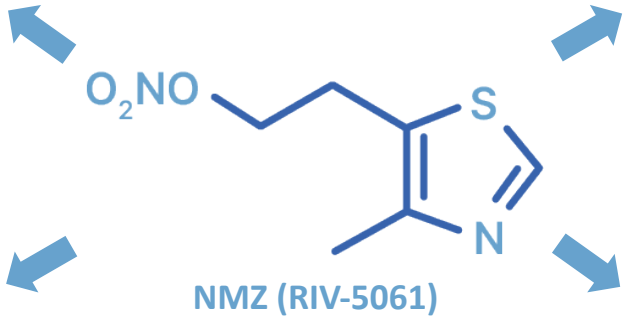
Efficacy in multiple neurodegeneration models

Attenuated AD pathology, improved learning and memory and restored biomarkers of synaptic and neuronal function

Efficacious on all biomarkers and functional readouts

Secondary biomarkers
(Aβ, pCREB, BDNF, TNFα)

Functional endpoints (cognitive function, long term potentiation LTP)



NMZ (RIV-5061)

Regulation of neuroprotective genetic signaling
(Nurr1, Nrf2, cFOS)

Inhibits deposition
of Aβ and Tau (and Aβ-induced microglial inflammation and release of pro-inflammatory cytokines)

Effective when administered chronically; **no apparent loss of effect / tolerance** to procognitive CNS effects .

Active in multiple mouse models of AD

Familial AD

- **APP/PS1:** transgenic mice overexpressing human mutant β-amyloid precursor protein (APP751SL) and presenilin-1 (PS1M146L) that exhibit elevated intraneuronal aβ-42 levels.
- **3xTg:** transgenic mice models of AD that generates both amyloid plaques and neurofibrillary tangles, the hallmark pathologies of AD
- **E4FAD:** APOE4 knock-in into APP/PS1 background.

Sporadic AD

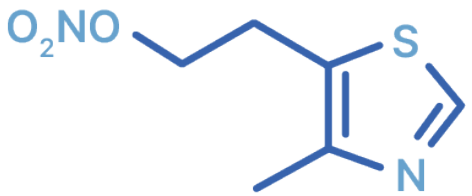
- **ALDH2-/-:** aldehyde dehydrogenase 2 knock-out that demonstrates age-related memory deficits associated with increased, Aβ, p-Tau, and decreased CREB and pCREB.

Published and unpublished data available upon request.

Efficacy in multiple neurodegeneration models

Brain exposure / CREB phosphorylation (pro-cognitive effect) demonstrated in rat models

Pro-cognitive effect, favorable pharmacokinetics



NMZ (RIV-5061)

Active in rat models of memory impairment

Brain exposure / CREB phosphorylation (pro-cognitive effect) confirmed in PK/PD studies

Efficient brain penetration: 5-10 min after oral gavage administration, blood-to-brain (hippocampus) ratio of 1.3x achieved

- Dose-dependent increase in phosphorylation of CREB and MAPK in rat hippocampus via IP administration
- Binding to GABA receptors confirmed in animal studies
- Improved performance in classic avoidance conditioning, maze tests, reward models

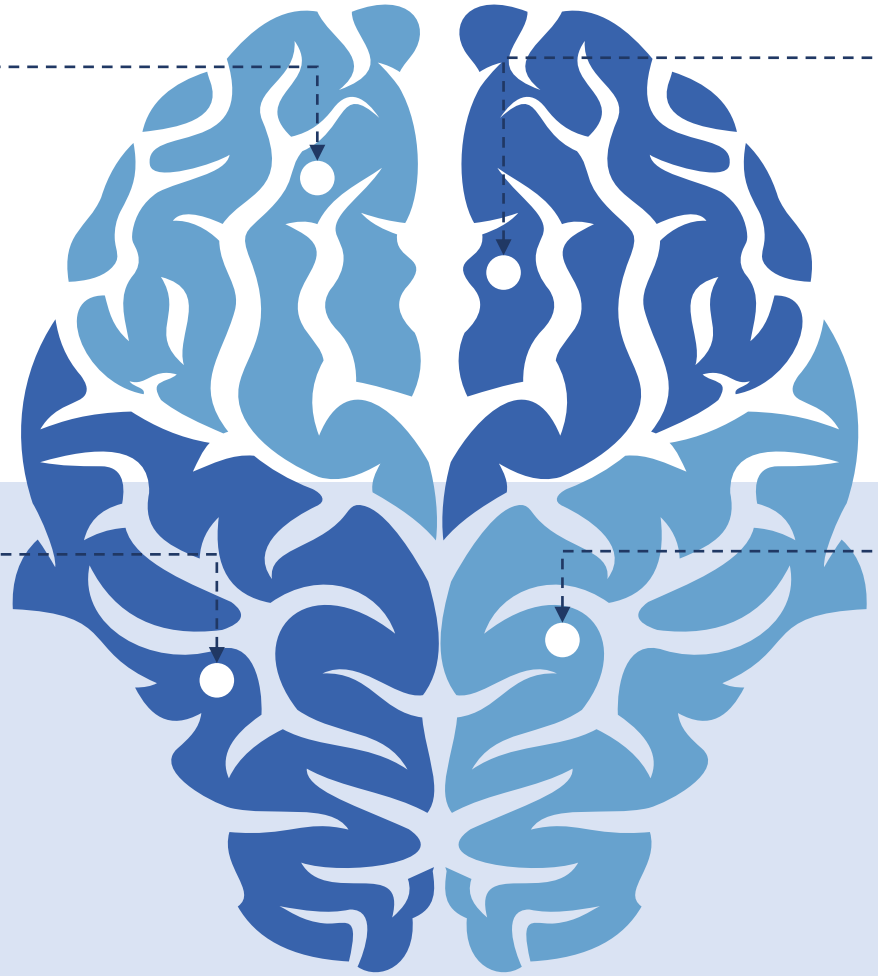
- **Scopolamine**: In passive and conditioned avoidance tests, rats injected intraperitoneally with scopolamine (a muscarinic antagonist which causes temporary cognitive dysfunction) manifest memory impairment.
- **Acetylcholine neuron ablation**: Significant reduction of cholinergic innervation in forebrain (hippocampus and (ACh)-depleted lesion neocortex), leads to impaired learning, memory, and cognition
- **Amyloid Beta model**: Produces a neuropathology similar to human conditions of cognition deficit.

Published and unpublished data available upon request.

RIV-5061 is active in many different animal models of brain disease beyond MCI related to Alzheimer's disease

Epilepsy

- CMZ (Zendra®) has been used in the treatment of epilepsy
- RIV-5061 confers a dose-dependent anticonvulsant effect in rats following scMET-induced seizures



Traumatic Brain Injury

- Daily treatment with NMZ (RIV-5061) completely alleviated acute post-concussive syndrome after 24 hours
- Treatment improves recovery in cognition in a model of traumatic brain injury (TBI) in ALDH2-/-mice

Down Syndrome

- Pro-cognitive, anti-inflammatory, antiepileptic
- RIV-5061 is undergoing testing in mouse models – promising results with Dp16 mouse model of Down Syndrome

RETT Syndrome

- Rett syndrome has faulty CREB signaling, GABA NO signaling and inflammation
- Spectrum of pharmacological activity suggests RIV-501 benefit for RETT
- RIV-5061 improved gait features in RETT (MECP2 mutation) mice (up to >60%) and improved startle response

Intellectual property

- **Compounds and Methods for Treating Brain Disorders - Species claims and picture claims for 2nd generation Nomethiazole development candidates. (UIC claim licensed to Revivo in merger) (2015)**
- Claims cover broad structural library & multiple indications
- Applicable to all indications under consideration
- Picture and crystal substance of matter claim RIV-5061 (Revivo claim) (Issued in US 2015 & EU 2018)
- Provisional for Specific Disease Neuroprotection Indications (Revivo claim 2019)
- PCT Specific Pediatric Neuroprotection Indications (Revivo claim 2020)

- **Intellectual property 1st Generation species re-licensed by Revivo from Queens University, (Parteq) Ontario Canada.**
- Neuroprotection and Cognitive Enhancement (EU and US) (2000) (Queens-Parteq)
- IP portfolio contains use, species claims, and picture claims for 4-methyl-5-thiazoleethanol nitrate (free base), and the chloride salt (GT-1061)

Patent Estate & Licensing: patents lasting to at least 2031

IP counsel:

LATHROP GAGE

NORTON ROSE FULBRIGHT

IP licensed from:

UIC UNIVERSITY OF ILLINOIS CHICAGO

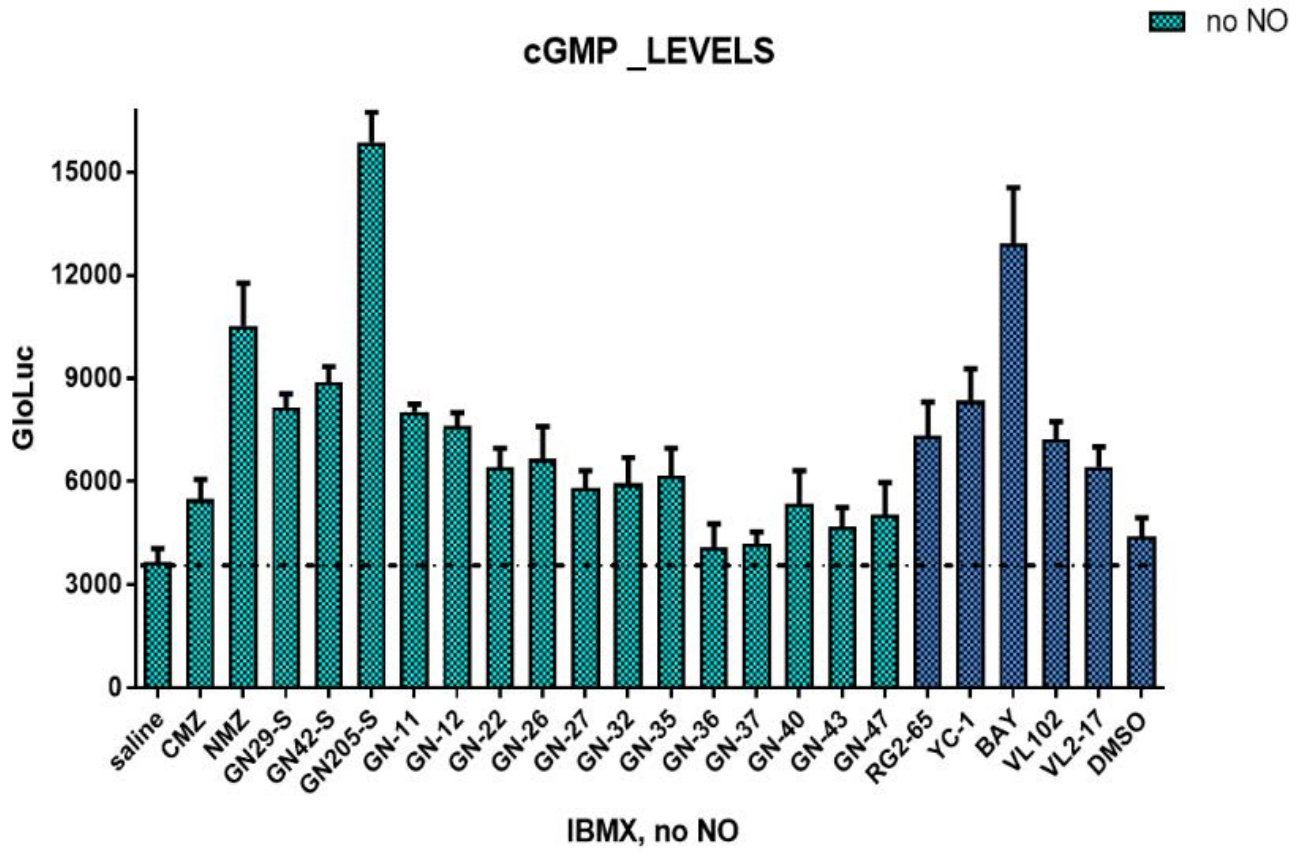
Queen's UNIVERSITY

Revivo Patent Estate Summary Table

Title	License No.	Application No.	Issued Patent No.	Priority Date(s)	Filing Date (Issue Date)	Expiration Date	Content, Status and International Filings
Nitrate Esters and Their Use for Neurological Conditions	Queens REVIVO	PCT/CA 97/00372	5,807,847 05/15/1998 5,883,122 03/16/1999 6,310,052 10/30/2001 6,365,579 04/02/2002 6,677,374 05/20/2002 6,916,835 07/12/2005	04June1996	04June 1996		US issued patents from continuations and divisionals. Also issued patents in MX, CA, divisional of Ser. No. 10/108,513, filed Mar. 29, 2002, now U.S. Pat. No. 6,677,374 which is a divisional of Ser. No. 09/851,591, filed May 10, 2001 and issued Apr. 2, 2002 as U.S. Pat. No. 6,365,579, which is a divisional of Ser. No. 09/267,379, filed Mar. 15, 1999 and issued Oct. 30, 2001 as U.S. Pat. No. 6,310,052, which is a continuation-in-part of Ser. No. 08/867,856, filed Jun. 3, 1997 and issued Mar. 16, 1999 as U.S. Pat. No. 5,883,122, which is in turn a continuation-in-part of Ser. No. 08/658,145, filed Jun. 4, 1996 and issued Sep. 15, 1998 as U.S. Pat. No. 5,807,847
Compounds and Methods of Treating Brain Disorders	Nomethiazoles sGC/ **UIC REVIVO**	US2011/035155 13/695,731?	US 8957086	05May2010-24Aug2010	04May 2011	04May2021 + PE	PCT published. National phase in US, CA, EP, China, AU, IN, 2nd generation compounds from Thatcher lab. Pending con in US OA July 10, 2014, amendment 9/17/2014
REDUCTION OF SOLUBLE ABETA (1-42)	sGC/ **UIC/ REVIVO**	62/361,662		13July2016	13July 2016		Filed provisional. Method patent. Refiled provisional July 2016
Salt Compound	**REVIVO**	PCT/US 11/48966 14/800,000	US 9,114,135 8/25/2015 AU 2011293437 1/7/2016	24Aug2010	24Aug 2011	24Aug2031 + PE	Filed in US, EP, CA, CN, IN, AU. Issued US and AU patents. Con in US still active. Allowed patent in EP.
Nomethiazoles for RETT Syndrome	**REVIVO**	PCT US		February 2020			Filed
Nomethiazoles as Novel Procognitive Neuroprotective Therapies for Treatment of Specific Neurologic Diseases with Neurodegenerative or Neurodevelopmental or Neurocognitive Components	**REVIVO**	Provosional		February 2020			Filed

Many ‘backup’ molecules in our IP estate to expand the pipeline

In addition to our clinical-stage lead compound, RIV-5061, we have dozens of other drug-like active molecules within our patent estate.



Planned Clinical Studies

We have a large supply of the drug already cGMP manufactured and ready for clinical trials. Protocols available upon request.

Early clinical trials have been designed:

Phase 1 SAD/MAD studies:

"A Four-Part, Phase 1 Study of the Safety, Tolerability and Pharmacokinetics of Single and Multiple Ascending Doses of RIV-5061 in Healthy Volunteers."

- Randomized, double-blind, placebo-controlled study
- This study will allow us to assess the new, controlled-release formulation of the drug. We can also assess biological target engagement by testing blood levels of active CREB (phosphoCREB), which reflect activity levels in the hippocampus, and cognitive performance in healthy elderly volunteers.
- We can also test the drug against the reversal of scopolamine-induced amnesia for a rapid efficacy readout.

Phase 1b clinical trial:

"A Randomized, Double-Blind, Placebo-Controlled, Pilot Study of the Safety, Tolerability and Potential Pro-Cognitive Effects of RIV-5061 in Subjects with Mild Cognitive Impairment of the Alzheimer's Type"

- Randomized, double-blind, placebo-controlled study
- The study will evaluate the safety and tolerability of RIV-5061 administered orally twice daily for 12 weeks to elderly subjects with MCI or mild dementia due to AD.

Comparable neuroscience deals – neurology is a hot area again

Company	Target/Licensor	Deal Value	Closing	Disease indication(s)	Focus	Developmental stage
Allergan	Heptares	$3.415 billion	2016	AD	Muscarinic receptor	Phase 1
Takeda	WAVE Life Sciences	$2.230 billion	2018	AD, PD, FTD, ALS	Nucleic acid therapies	Phase 2
Biogen	Bristol Myers Squibb	$1.26 billion	2017	AD	Tau	Phase 1
Voyager therapeutics	Neurocrine Biosciences	$1.865 billion	2019	PD	AAV vectors	Phase 2-3
Pfizer	Biogen	$710 million	2020	AD, PD	Circadian rhythm modulator	Phase 1
Biogen	Denali	$1 billion	2020	PD	LRKK2	Phase 1
Oncodesign	Servier	$360 million	2019	PD	LRKK2 inhibitors	Phase 1
Biogen	C4 Therapeutics	$415 million	2019	AD, PD	RNA splice modifiers	Phase 1-2
Lundbeck	Prexton Therapeutics	$1.1 billion	2018	PD	mGluR4 PAM	Phase 2
Alector	-	$176 million (market cap: $1.382 billion)	2019	AD and FTD	Immunology drugs	IPO
Alzecure	-	$22 million (market cap: $330.1 million)	2019	AD	-	IPO
Cortexyme	-	$78.1 million (market cap: $920.9 million)	2019	Neurodegeneration	Gingipains inhibitor	IPO

Conclusions

Experienced team with a **prior successful exit** (sale of Cardioxyl to BMS for up to $2B). [1]

Rapid clinical trials: **this drug acutely enhances cognitive function** and reduces anxiety – long trials not required.

First-in-class mechanism of action drug, with acute cognitive-enhancing activity across **11 different animal models of neurological disease**. This is a 'pipeline in a pill' with many applications.

Strong IP with patents lasting until at least 2031, with additional new molecules in our pipeline.

Drug is **very safe**: the metabolites are well-known molecules (nitric oxide and sulfurol, a food additive). This drug has **been in a Ph1 human clinical trial already**, now we have an improved formulation.

IND-ready to file with FDA. Drug manufactured and ready to proceed into Ph1 clinical trials. Exit possible in <2 years.

Contact: Sebastian@pantheonbio.org

1. "BMS to Buy Cardioxyl for Up to $2.075B." (2015) https://www.genengnews.com/topics/drug-discovery/bms-to-buy-cardioxyl-for-up-to-2-075b/

Appendix

Also available upon request:

- Full length data deck
- Key publications and data
- FDA regulatory documents
- Clinical trial designs
- Detailed budget

Contact:
dcowart@revivotherapeutics.com

The Endgame: a different approach to Alzheimer's & brain aging

Most Alzheimer's drugs have targeted single proteins: **amyloid beta** or **tau**.

Billions of dollars have been spent pursuing the '**amyloid hypothesis**' – a dogma in the field of neurology that has now lost favor due to repeated clinical failures based on this theory. [1]

Alzheimer's is a difficult therapeutic indication, but the high failure rate (>95% of attempts) is due to a fundamentally flawed theory about the molecular pathology underlying the disease. **Drugs that rest on a different theory are more likely to succeed.**

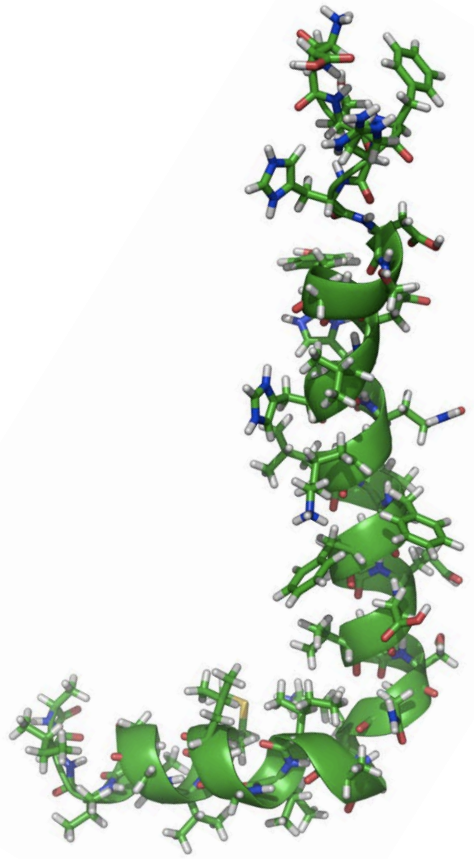
Amyloid beta and tau do not cause the most common **sporadic form** of Alzheimer's.

Revivo can be **agnostic** to the etiology and mechanisms of disease underlying Alzheimer's and other forms of dementia, because **our drug enhances cognition across many animal models of brain disease**.

Although our drug may not dramatically slow or reverse the true cause(s) of Alzheimer's, we hope that our patients will still benefit from **enhanced cognition**.

The bar is rather low for Alzheimer's: the only approved drugs are cholinergics (donepezil) and NMDA receptor antagonists (e.g., memantine) -- neither class has a large effect size, and the therapies wear off after several months. They also come with non-trivial side effects.

Governments see an increasingly **urgent need** for new medications for AD. Our drug is differentiated from everything else than has come before.



Amyloid beta peptide

1. **The maddening saga of how an Alzheimer's 'cabal' thwarted progress toward a cure for decades**. STAT News. 2019

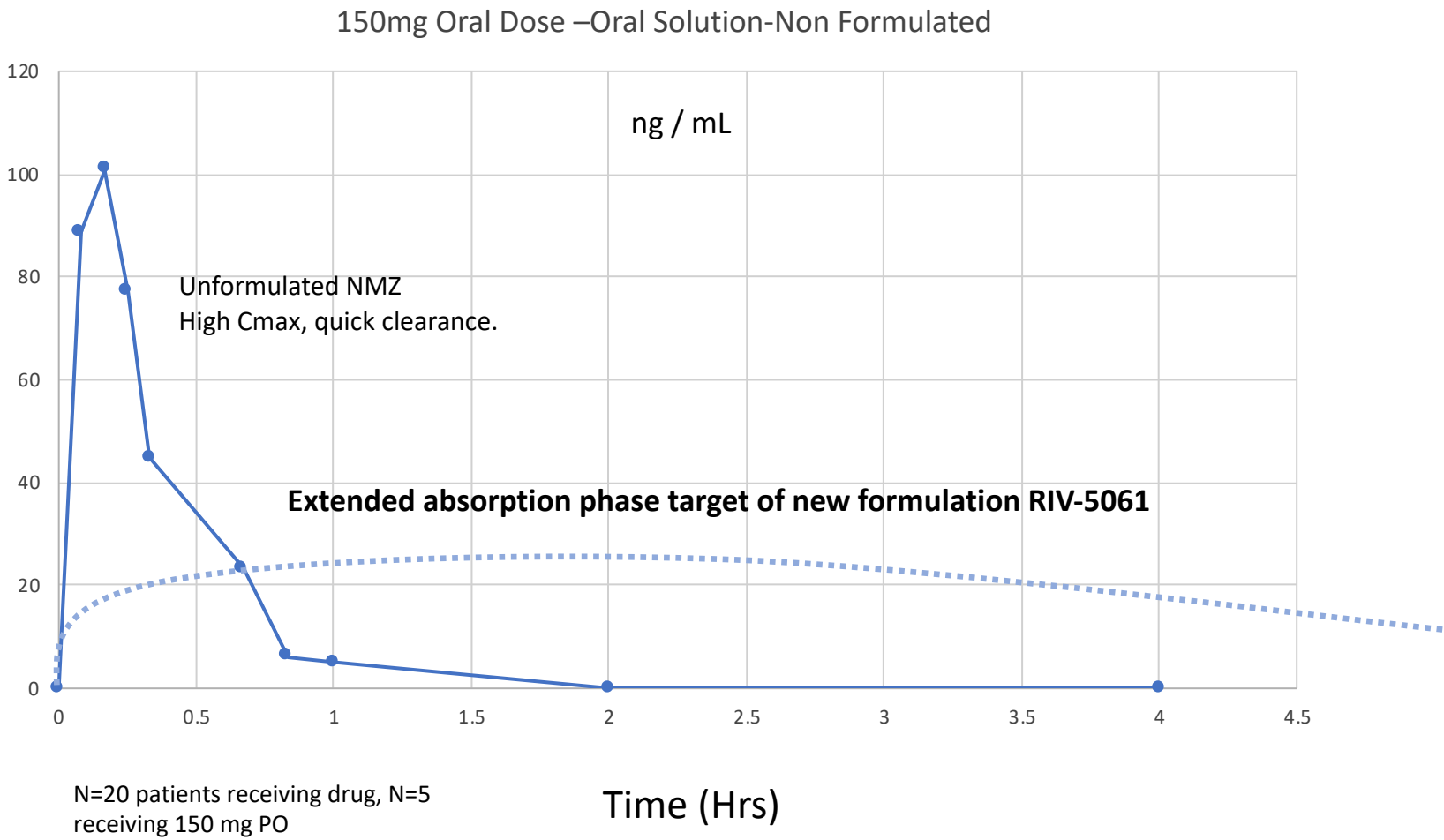
Human Ph1a Pharmacokinetics with the prior, unformulated version

This was the *unformulated, immediate release* HCL salt.

We have a different salt form (maleate) and new controlled-release formulation to extend the half life and reduce the Cmax.

The Cmax of 100 ng/mL is high – we achieve cognitive enhancing effects in rat brain at <10 ng/mL (10% of the human Cmax).

Note: drug concentration in brain (hippocampus) is 25% greater than in blood based on animal PK studies.



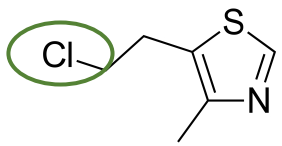
Target Product Profile: RIV-5061 for Mild Cognitive Impairment

TARGET PRODUCT PROFILE RIV-5061 Prototype Nomethiazole for (1) Treatment of Cognitive Decline in MCI and (2) Alzheimer's Disease Progression	
Indication(s)	Early-stage treatment in patients exhibiting cognitive decline with biomarker indicated stage 2-3 MCI
Current Treatment Options	Donepezil, galantamine, memantine, rivastigmine, combination donepezil and memantine
Label/Primary indication(s)	Primary therapy to address neurocognitive symptoms A potential therapy to delay the progression of the underlying disease
Product positioning	RIV-5061 is intended as first line therapy for early-stage disease, when early signs of neurocognitive decline are initially apparent. Because it has precognitive anti-progression effects, its use may be later in development intended for long term treatment
Route of administration	Administered orally
Pharmaceutical form	Sustained Release Tablets/Capsules
Dosage schedule	Anticipated as 100mg-200mg as divided dose as BID
Efficacy	Effective for neurocognitive symptoms within 60 days from initiation and titration of dose at weekly intervals. For anti-progression indication, sustained therapy shows statistically significant, dose-dependent slowing of decline in progression over 2-5 years.
Pharmacological Mechanism	Restoration of synaptic function and reversal of cognitive deficits through multiple mechanisms (including restoration of pCREB and BDNF, GABAa potentiation, protection against oxygen glucose deprivation (OGD) and Aβ induced cytotoxicity), all together yielding reduced AD pathological hallmarks
Tolerability	Well tolerated, mild transient non-clinically significant decreases in blood pressure may occur
Interaction	Can be used concomitantly with all other therapies directed at the treatment of MCI.
Contraindications/warnings	None known
Expected market size	$4-8 Billion based on an ~30-40% market penetration. Effect of later stage Monclonal AB and BACE inhibitors are not expected to significantly alter the market as their efficacy in early stage disease remains unproven.
Manufacturing	Clinical trial materials were produced at a contract manufacturer in the U.S.. U.S. market supplied by contract manufacturing facility with API and/or final product produced in the U.S.

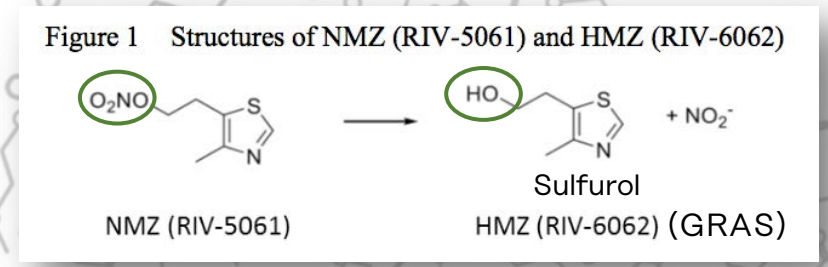
Mechanism of action: pro-cognitive anxiolytic

Privileged scaffold: RIV-5061 is an analog of the approved drug chlormethiozole (CMZ), but without the sedative properties. CMZ is an analog of vitamin B1 (thiamine), and showed efficacy in stroke trials.

- $GABA_A$ partial agonists have anxiolytic activity, including benzodiazepines (e.g., Xanax, Valium)
- Unique allosteric GABA site binding activity of RIV-5061 has been demonstrated (etomidate site)
- Reduced side effect profile relative to benzos.
- RIV-5061 is a 'dual pharmacophore' type prodrug – two drugs in one.
- Blood brain barrier penetrance is high, with favorable pharmacokinetics – enhancing rat cognition (LTP) at a concentration as low as *1.0 nanomolar (nM).*



Chlormethiozole: contains a chloride in place of the nitrate ester (ONO_2) of RIV-5061



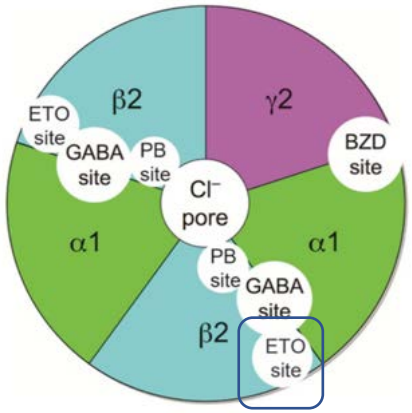
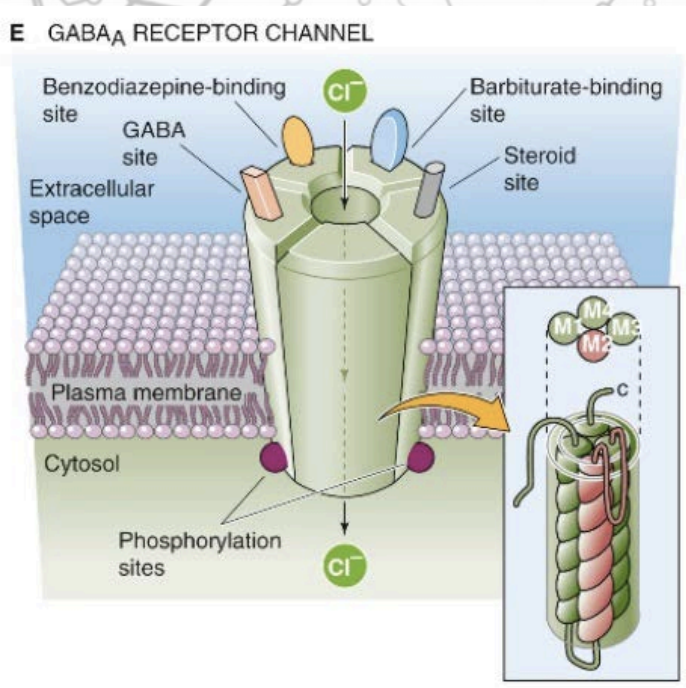


FIGURE 9 The structure of five combined subunits of the $GABA_A$ receptor and its related binding sites. The binding site of GABA is at the interface between α and β subunits. The benzodiazepine binding site is positioned at the interface between α and γ2 subunits. Etomidate binds to the β-subunits. Barbiturates, ethanol, and neurosteroids bind to sites in the membrane-spanning transmembrane regions of the subunits



New approach to NO modulation in the CNS

Table 1
Pharmacological modulators of NO/cGMP signaling in the literature that have been utilized in disorders of the CNS, including their pharmacological targets and mode of action.

	Drug	Pharmaceutical Mechanism	Disease Target	Observed Effect	Model	Clinical	Refs
NO-Donors	Nitrosynapsin	NO-Hybrid drug	AD/Autism	↓Aβ-induced synapse damage	3xTg	–	[106]
	NMZ (GT-1061)	NO-Hybrid drug	AD	LTP restoration in hippocampal slices, ↑ memory, and ↓ Aβ	APP/PS1, 3xTg, and 5xFAD/hAPOE4	–	[97,104]
	NCX-116	NO-NSAID	AD	–		FDA approved for Glaucoma	
	HCT-1026	NO-NSAID	AD	Reversed cognitive deficits induced by scopolamine, ↓ the $A\beta_{1-42}$-induced glia reaction, iNOS ↑ and p38MAPK activation	APP/PS1	–	[102,151] [152]
	NCX-2216	NO-NSAID	AD	↓$A\beta_{1-42}$-induced glia reaction, ↑ iNOS and ↑ p38MAPK		–	[151]
	CHF-5074	NO-NSAID	AD	Reversal of contextual memory deficit	Tg2576		[171] [172,173]
	9a	Furoxan	AD	↑ LTP in hippocampal slices treated with oligomeric Aβ		–	[205]
	Sin-1	NO-Donor	AD	↓ 7-nitroindazole induced learning deficit, scopolamine-induced amnesia and hypermotility in rats		–	[228–233]
HNO-Donors	Angeli's salt	HNO-Donor	AD	↑ cerebral ischemia-reperfusion injury	Experimental stroke model - C57BL6/J	–	[239,242]
sGC Stimulators	YC-1	sGC Stimulator	AD	LTP restoration in hippocampal slices, attenuated scopolamine-induced amnesia	adult Wistar rats	–	[255,256]
	VL-102	sGC Stimulator	Migraine	Acute and chronic mechanical cephalic and hind-paw allodynia	C57BL/6	–	[120]
sGC Inhibitors	ODQ	sGC Inhibitor	PD, Migraine	Improved deficits in forelimb akinesia induced by 6-OHDA and MPTP. ↓ acute and chronic hyperalgesia induced by nitroglycerin	6-OHDA and MPTP treated rats	–	[266]
NOS Inhibitors	L-NMMA	NOS inhibitor	Migraine	–		Phase II [127]	
PDE Inhibitors	Sildenafil	PDE5 Inhibitor	AD	↑ synaptic function, CREB phosphorylation, and memory. Reversed cognitive impairment of Tg2576 mice	APP/PS1, aging mouse model, J20, Tg2576	–	[282] [283]
	Tadalafil	PDE5 Inhibitor	AD	↑ performance of J20 mice in the Morris water maze test	J20	–	[284–286]
	UK-343664	PDE5 Inhibitor	AD	Ineffective at preventing MK-801-induced memory disruption, however, ↓ the memory impairment of scopolamine	MK-801	–	[287]
	YF012403	PDE5 Inhibitor	AD	Rescued the defects in LTP, synaptic, plasticity and memory	APP/PS1	–	[288] [289]
	CM-414	PDE5 Inhibitor	AD	LTP restoration in hippocampal slices. ↓ brain Aβ and tau phosphorylation, reversed a decrease in dendritic spine density on hippocampal neurons, and reversed cognitive deficits	APP/PS1, Tg2576	–	[291]
	BAY 73-6691	PDE9 Inhibitor	AD	↑ acquisition, consolidation, and retention of long-term memory (LTM) in a social recognition task ↓ a scoplamine-induced retention deficit in a passive avoidance task, and MK-801-induced short-term memory deficits.	FBNF1 rats	–	[295]
	PF-04447943	PDE9 Inhibitor	AD	LTP restoration in hippocampal slices, ↑ indicators of hippocampal synaptic plasticity and improved cognitive function	Tg2576	Phase II [298]	[296,297]
	BI-409306	PDE9 Inhibitor	AD, Schizophrenia	–		Phase II [299]	
	SCH-51866	PDE1/5 Inhibitor	HD	No effect in the R6/2 mouse model of HD	R6/2 HD		[301]
	BAY 60-7550	PDE2 Inhibitor	AD	↑ performance of rats in social and object recognition memory tasks, and reversed MK801-induced deficits	MK-801	–	[23,302–304]
	PF-05180999	PDE2 Inhibitor	Schizophrenia, Migraine	–		Phase I [306]	[305]
	ND7001	PDE2 Inhibitor	Various CNS	–			[307]
	Papaverine	PDE10A Inhibitor	Psychosis	↓ conditioned avoidance responding in rats and mice and ↓PCP induced hyperlocomotion	Male CD rats	–	[308] [309]
	PF-02545920	PDE10A Inhibitor	HD	–		Phase II [310]	
	TAK-063	PDE10A Inhibitor	Schizophrenia	↓ PCP induced hyperlocomotion	C57BL/6	–	[311]
	"compound 96"	PDE10A Inhibitor	Psychosis	Reversal of MK-801 induced hyperactivity and conditioned avoidance responding	MK-801	–	[313]

List of Nitric Oxide-targeting CNS therapies throughout history.

Conclusion: Our approach is new.

No nitric oxide *donor* has been in the clinic for a CNS indication.

Our compound is a NO donor as well as a PAM at the $GABA_A$ receptor.

Phase 1 clinical trial protocol (3 studies)

<u>Study 1</u>: A Two-Part, Phase 1 Study of the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of *Single Oral Dose Administrations* of RIV-5061 in Healthy, Non-Elderly and Healthy, Elderly Volunteers

Protocol Synopsis	
Primary Objectives	• Study Part A: To evaluate the safety and tolerability of up to nine ascending single, oral dose administrations of RIV-5061, and to establish the maximum tolerated single oral dose of RIV-5061 (the single-dose MTD), in healthy, non-elderly volunteers • Study Part B: To evaluate the safety and tolerability of up to three single, oral dose administrations of RIV-5061 in healthy, elderly volunteers
Secondary Objectives	• To determine the single dose pharmacokinetic profile of oral RIV-5061 in healthy, non-elderly (Study Part A) and elderly (Study Part B) volunteers • To evaluate the effects of food intake just prior to study drug administration on the pharmacokinetic profile of oral RIV-5061 in healthy, non-elderly volunteers (Study Part A)
Exploratory Pharmacodynamic Objectives	• To measure blood Cyclic-AMP Response Element Binding Protein (CREB) and the activated (phosphorylated) form of CREB (p-CREB-Ser133 or pCREB), in order to evaluate the potential use of blood pCREB and/or the ratio of pCREB to total CREB as a target engagement assessment of the activation of CREB by nitric oxide (NO) (Study Parts A and B)
Study Design	The study will be a randomized, double-blind, placebo-controlled study conducted in two parts. In Study Part A, single ascending dose (SAD) administrations of oral RIV-5061 will be studied in sequential cohorts of healthy, non-elderly volunteers. In Study Part B, single ascending dose (SAD) administrations of oral RIV-5061 will be studied in sequential cohorts of eight healthy, elderly volunteers

Phase 1 clinical trial protocol (3 studies)

<u>Study 2</u> - A Phase 1 Study of the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of *Multiple Oral Dose Regimens* of RIV-5061 in Healthy, Elderly Volunteers

Protocol Synopsis	
Primary Objectives	• To evaluate the safety and tolerability of up to six ascending multiple dose regimens of RIV-5061, and to establish the maximum well-tolerated multiple oral dose regimen (the multiple-dose MTD), in healthy, elderly volunteers
Secondary Objectives	•To determine the multiple dose pharmacokinetic profile of RIV-5061 in healthy, elderly volunteers
Exploratory Pharmacodynamic Objectives	• To measure blood Cyclic-AMP Response Element Binding Protein (CREB) and the activated form of CREB (p-CREB-Ser133 or pCREB), to evaluate the potential use of blood pCREB and/or the ratio of pCREB to total CREB as a target engagement assessment of the activation of CREB by nitric oxide (NO) • To explore the effects of RIV-5061 on the Groton Maze Learning test.
Study Design	The study will be a randomized, double-blind, placebo-controlled study. Multiple ascending dose (MAD) administrations of oral RIV-5061 will be studied in up to six cohorts of 8 healthy, non-elderly volunteers . The daily frequency of dosing is once or twice daily and duration of dosing is up to 7 days

Phase 1 clinical trial protocol (3 studies)

<u>Study 3:</u> A Randomized, Double-Blind, Placebo-Controlled, Pilot Study of the Safety, Tolerability and Potential Pro-Cognitive Effects of RIV-5061 in Subjects with Mild Cognitive Impairment of the Alzheimer's Type

Protocol Synopsis	
Primary Objectives	• Evaluate the safety and tolerability of RIV-5061 administered orally twice daily for 12 weeks to elderly subjects with MCI or mild dementia due to AD
Exploratory Pharmacodynamic Objectives	• Evaluate the effects of RIV-5061 on cognitive function and activities of daily living over the 12-week treatment period
Patient Population	• Male or Female Elderly Subjects (60 to 85 years old) with Mild Cognitive Impairment (MCI) or Mild Dementia due to Alzheimer's Disease (AD). Approximately 36 subjects
Study Design	The study will be a randomized, double-blind, parallel group, placebo-controlled evaluation of a single, twice-daily dosing regimen of RIV-5061 administered for 12 weeks.

Phase 1 clinical trial protocol[1]

<u>Additional study:</u> A Phase 1 study of the effects of a single, oral administration of RIV-5061 on generalized cognition and on cognitive impairment induced by a single-dose, subcutaneous administration of scopolamine, in healthy, elderly volunteers

Protocol Synopsis	
Primary Objectives	• To evaluate the effects of a single, oral administration of RIV-5061 on generalized cognition and on cognitive impairment induced by a single-dose, subcutaneous (SQ) administration of scopolamine, in healthy, elderly volunteers
Exploratory Pharmacodynamic Objectives	• Evaluate the effects of RIV-5061 on cognitive function and activities of daily living over the 12-week treatment period
Patient Population	• Healthy, elderly volunteers (age 55 to 75 years)
Study Design	Twenty-four (24) healthy, elderly volunteers will be recruited to evaluate the effects of single oral dose of RIV-5061 on a measure of visuospatial working memory and executive controls, the Groton Maze Learning Test (GMLT). (Scopolamine Reversal)

1. This study may allow additional efficacy signals to be detected.

Management Team

CEO

Doug Cowart

During a career spanning over 30 years as a clinical researcher and clinical trialist, Dr. Cowart has held positions of responsibility involving clinical program design, strategic planning, and corporate operations. Prior to founding Revivo Therapeutics, he served as one of the company co-founders, and Executive Director of Development and Regulatory affairs at Cardioxyl Pharmaceuticals (acquired by BMS for up to $2B). He served as Senior Director of Cardiovascular Development at Otsuka Pharmaceuticals, as Executive Director of Cardiovascular Development at Sigma Tau Pharmaceuticals, as Chief Operating Officer of Medifacts International (multispecialty CRO), President of Medical Therapeutic Consultants, Inc. (MTC). Executive Development and Regulatory positions were also held at several small companies including Cardiome Pharmaceuticals and Cortria Pharmaceuticals. Dr. Cowart earned his B.S. Pharm at the University of Georgia and his Pharm D. at the Medical University of South Carolina where he also did his residency in Pharmacy and advanced fellowship training in Clinical and Basic Pharmacology. He served as Assistant Professor of Pharmacology in Medicine and Pharmacy Schools at the Medical University of South Carolina and was a co-investigator in NIH Pharm/Tox Center Grant awards covering 16 clinical trials. He is board certified in clinical pharmacology and regulatory affairs.

Management Team

SVP Chemistry & Preclinical Development

Vince Kalish

Dr. Kalish has extensive experience in the preclinical development of drug candidates, medicinal chemistry, patents and project leadership, earned over 30 years in the biopharma industry. He previously served as Chief Scientific Officer for Bluefield Innovations based at Johns Hopkins, a Deerfield Management-built company. Prior to Revivo and Bluefield, he was co-Founder of Cardioxyl Pharmaceuticals. Before founding Cardioxyl, he directed drug discovery and medicinal chemistry teams and served in senior research management roles at a number of biopharmaceutical companies including Idun Pharmaceuticals, Agouron Pharmaceuticals, and Guilford Pharmaceuticals. He is an inventor on numerous issued patents and co-inventor of multiple compounds that have advanced into clinical trials, including Viracept™, a marketed HIV protease inhibitor. Dr. Kalish earned a Ph.D. in organic chemistry from Penn State University and a B.S. from Rutgers University.

Management Team

VP, Preclinical Development

J. Craig Hartman

Dr. Hartman has 30 years of biopharmaceutical research and pre-clinical development experience. He served in leadership/development positions at American Hospital Supply, a division of Baxter Healthcare, Pharmacia Upjohn, Somatogen, Myogen, Gilead, and most recently lead the toxicology and safety pharmacology programs at Cardioxyl Pharmaceuticals as VP Pharm/Tox and Preclinical Development. Dr. Hartman has extensive experience in preclinical discovery / development; and has led preclinical teams from IND enabling thru post-marketing. Dr Hartman continues to liaise with the FDA in matters relating to the preclinical toxicology program. He will assist in translational assessment of ADME and support Dr. Cully in the oversight of CROs carrying out specified research activities relating to analytical methodology for clinical pharmacokinetic assessments. He holds a PhD in Pharmacology and Toxicology from the Medical College of Wisconsin.

Management Team

VP, Molecular Pharmacology

Doris Cully

Dr. Cully has extensive work experience in drug development in the pharmaceutical industry. She was a prior VP of Preclinical Research at Merck, and served as VP of Molecular pharmacology at Cardioxyl, where she oversaw the development of oral prodrugs being developed. She has extensive expertise in nitrate pharmacology and in receptor pharmacology. She has 30 years' experience working in both large and small pharmaceutical companies which has given her the background and training to rapidly bring forward novel compounds into the clinic. Her role in this research program has been to serve as the core lead in the subject area of molecular pharmacology, with a focus on the nitric oxide pathway and the GABAergic pathway as it neuronal neurotransmitter and ion channel biochemistry. She authored the IND sections on Pharmacology and ADME and will assist in the oversight of the work at the Nucro-technics CRO carrying out the specified research activities relating to Analytical Methodology. She has overseen the cross over canine ADME program enabling the validation of the Sustained release formulation which is being utilized in the clinical program. In addition, she will carry out other activities relating to elucidation of drug metabolizing and transporter pathways, paving the way to the evaluation of RIV-5061 in the Phase 1B program.

Management Team

VP, Clinical Development

Robert Venuti

Mr. Venuti has 30 years of clinical development experience. He has served as Assistant Director, Clinical Development, SmithKline Beecham Pharmaceuticals, Associate Director, Clinical Development, Sphinx Pharmaceuticals Vice President, Clinical Development, Intercardia/Incara/Aeolus Pharmaceuticals, Director, Clinical Development, TransTech Pharma, Vice President, Clinical Development, Entegrion and Director, Clinical Development at Tranzyme Pharma, before serving as Senior Director, Clinical Development, Cardioxyl Pharmaceuticals. He completed the basic science curricula at Dartmouth Medical School, before leaving to focus his career in the pharmaceutical industry. His expertise is in the design, implementation, and management of clinical programs, and leading of the functional clinical development activities, including management of contract research organizations, medical writing, and overall regulatory compliance with GCP. Mr. Venuti will oversee all aspects of management of the CROs supporting the clinical activities for this program and will also complete all monitoring and oversee medical writing activities.

Management Team

Operations Analyst

Jack Harley

Mr. Harley has a Master's with distinction in in Clinical and Therapeutic Neuroscience from the University of Oxford, where he conducted research into into inflammatory biomarkers of brain aging. He has worked for YC-backed health technology startup Mindset Health since 2017. Mr. Harley was previously the Vice President of the Oxford Society of Aging and Longevity, a coalition of academics, students and industry partners involved in longevity biotechnology. He is pursuing graduate training in Economics at the London School of Economics.

Board of Directors

Chairman

Robert Bender

Robert is an angel investor in Revivo. He has over 40 years experience in life sciences and healthcare. He was a venture investor (with Ventures West and Frederick Adler respectively) and was a senior manager at Sunopta, BIO LOGICALS, Neurochem, Immune Control Inc., Pharmena Inc., Atreus Pharma, and MSK Metrics. As founder of BIO LOGICALS in 1978, Robert co-invented and led the team that developed and marketed the first DNA synthesizer. Robert was founding CEO of Neurochem (NASDAQ: NRMX). With early financing from Atlas Venture, the company advanced a CNS asset into Ph3 before restructuring. Robert co-founded Atreus Pharma with Drs Allan Green and Francis Blackenberg (IP from Stanford) to develop radiopharmaceuticals that were ultimately acquired by Novartis.

Board of Directors

Director

Marc Goldberg

Marc Goldberg is co-founder and Managing Partner of BioVentures Investors of Wellesley, Massachusetts. He brings almost 40 years of managerial and investment experience in life sciences and healthcare. Mr. Goldberg served as President and CEO of the Massachusetts Biotechnology Research Institute. He served in numerous executive roles at Safer, Inc., a developer and manufacturer of novel biopesticides and related products, and started his career at Genetics Institute, one of the earliest biotechnology research and development companies. Mr. Goldberg earned his B.A. from Harvard College, his J.D. from Harvard Law School, and his M.B.A. from Harvard Business School.

Board of Directors

CEO & Director

Doug Cowart

Dr Cowart has over 30 years of experience in drug development. He was a clinical pharmacist and assistant professor at the Medical University of South Carolina, where we was PI on 16 clinical trials. He was previously Senior Director of CVD at Otsuka, EVP of Clinical & Regulatory at Cardioxyl (acquired by BMS), executive director at Sigma Tau, VP of regulatory at Cardiome Pharma, and held several other senior management roles. He has filed several INDs and NDAs across many therapeutic areas and has managed all stages of clinical development. He holds a PharmD from MUSC where he also completed his residency and postdoc in clinical pharmacology.

Board of Directors

Advisor & Board Observer

Sebastian A. Brunemeier

Sebastian A. Brunemeier is a biotech founder and VC. Sebastian was previously a Principal at Apollo Health Ventures, the first and largest aging-focused venture capital fund in the world, as well as Co-Founder and Chief Investment Officer at Cambrian Biopharma. Sebastian was CEO of Cyclone Therapeutics, a Scripps Research Institute spinout focused on proteostasis. He was co-founder and COO of Samsara Therapeutics, developing autophagy-enhancing small molecules Oxford, UK. Prior to Apollo, he was a Fulbright Fellow in the biology of aging at the Gulbenkian Institute, a Skaggs-Oxford Scholar at the Scripps Research Institute, and a SENS Foundation Scholar at the Buck Institute for Research on Aging. His education includes partial DPhil (PhD) training on the biochemistry of aging at the University of Oxford as a Clarendon Scholar, an MSc in Life Science Business Management and an MSc in Molecular Neuroscience from the University of Amsterdam. He served as a trustee of the British Society for Research on Aging and is an advisor to McKinsey & Company.

A new class of medicines for brain aging and cognitive enhancement

Disclaimer

This presentation includes forward-looking statements and estimates, which are subject to various risks and uncertainties and are based upon various assumptions that may not prove to be correct. Such statements include, but are not limited to, statements regarding Revivo clinical and regulatory objectives and market opportunity estimates and the development of Revivo in general. Such assumptions are subject to substantial risks and uncertainties including without limitation risks and uncertainties associated with the development and commercialization of potential pharmaceutical products; clinical studies; regulatory requirements and approvals; competitive factors; technological developments risks; additional capital requirements; and other risks associated with early stage pharmaceutical companies.

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