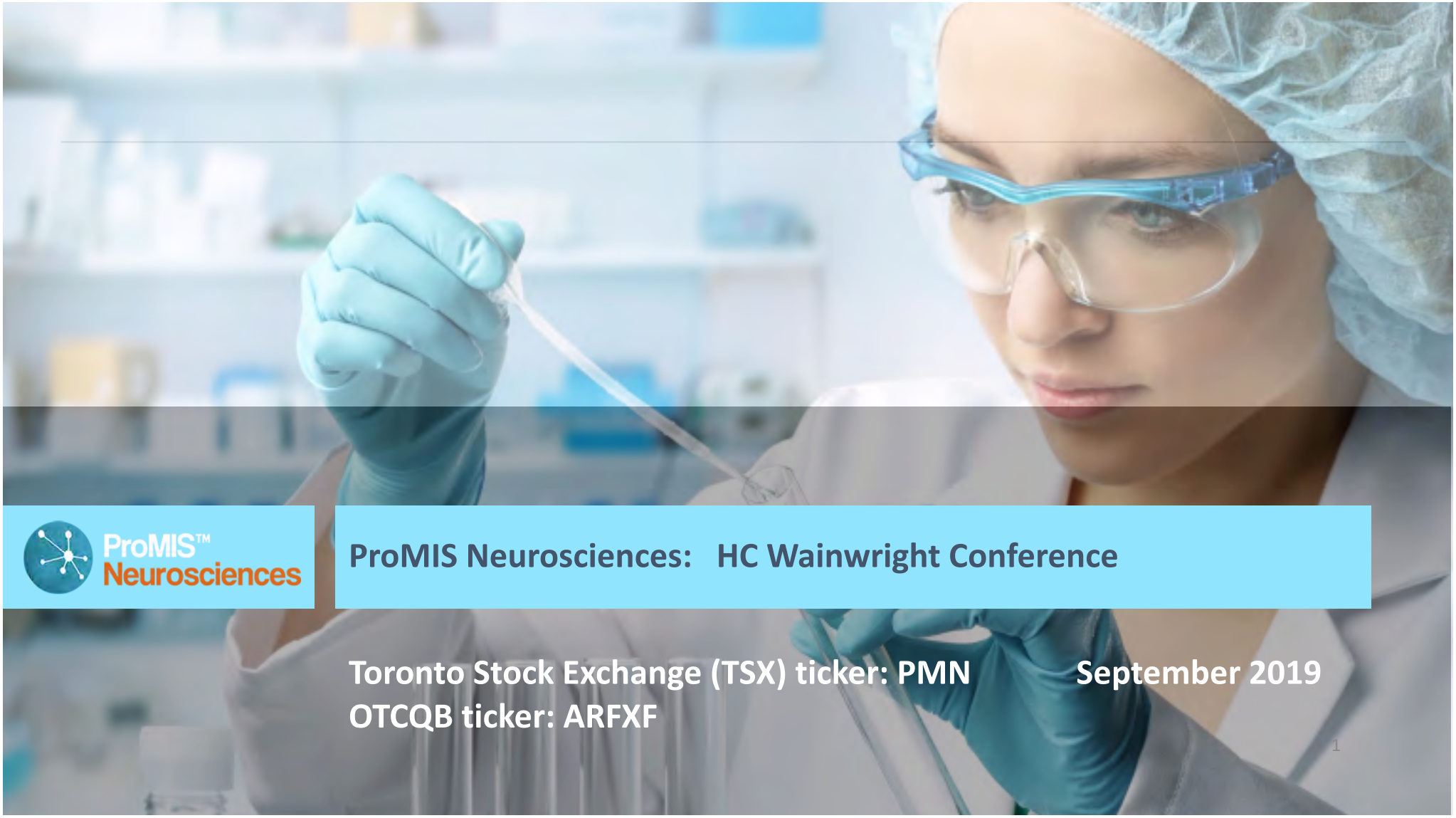


ProMIS Neurosciences: HC Wainwright Conference

Toronto Stock Exchange (TSX) ticker: PMN
OTCQB ticker: ARFXF

September 2019

Forward looking statement: safe harbor

This slide deck may contain certain forward-looking information. Such information involves known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from those implied by statements herein, and therefore these statements should not be read as guarantees of future performance or results. All forward-looking statements are based on the Company's current beliefs as well as assumptions made by and information currently available to it as well as other factors. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this slide deck. Due to risks and uncertainties, including the risks and uncertainties identified by the Company in its public securities filings available online at www.sedar.com. Actual events may differ materially from current expectations. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

ProMIS Neurosciences Overview

- Growing portfolio of antibody therapies targeting the ***root cause*** of neurodegenerative and other mis-folded protein diseases like Alzheimer's, Parkinson's, ALS
- Unique discovery platform enabling creation of ***highly selective*** antibodies at the ***molecular species*** level, creating antibodies with a better selective binding profile than competitive antibodies – ***"best in class"***
  - traditional antibody creation strategies ineffective
- ***Biomarker*** based development strategy, looking for a therapeutic impact on disease pathology both clinically and preclinically, enabling ***rapid and cost effective development, and early value inflection points***
- Highly experienced management team
- TSX listed – PMN.TO
- OTCQB listed - ARFXF

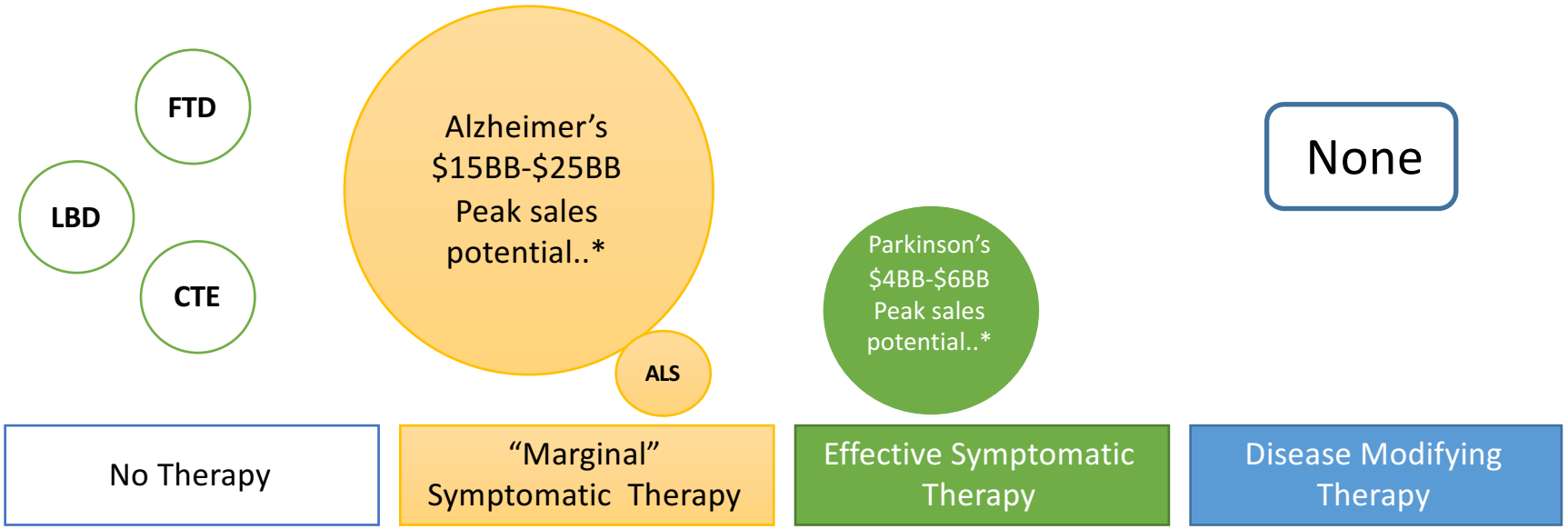
ProMIS is applying its unique science platform to mis-folded protein diseases (including neurodegenerative diseases) to create the first disease modifying therapies

*The **right target** for therapy needs to be specified at the **molecular species level***
*→ not just any form of amyloid, tau or TDP43, but the specific **mis-folded toxic** species*

***High selectivity** for the **mis-folded protein** target is critical for clinical success since the toxic species are relatively rare*
→ indiscriminate binding leads to "dose reduction" and adverse events

*Successful development will be greatly enhanced by the emergence and usage of **fluid-based biomarkers** that reflect disease modifying treatment effects*

Neurodegenerative diseases: In need of disease modifying therapy attacking the *root cause*



FTD = Frontotemporal dementia
LBD = Lewy Body dementia
CTE = Chronic traumatic encephalopathy

ProMIS™ Neurosciences

- Analysis by Centerline: assumes market average penetration, diagnosis, 40% mkt share

ProMIS Neurosciences: Summary Investment Thesis

ProMIS brings unique capabilities to mis-folded protein diseases like neurodegenerative diseases

- Diseases like Alzheimer's, ALS, Parkinson's are *mis-folded protein* driven. Therapies need to selectively target the toxic mis-folded versions, not normal healthy forms of the protein
- ProMIS track record of over 95% success at creating highly selective antibodies, based on novel, patented design processes
- Broad portfolio of antibody therapies selectively targeting mis-folded forms of alpha synuclein, amyloid-beta, tau, TDP43 and SOD1
- ProMIS platform provides a unique, competitive advantage

Near term (3-12 month) value creation through partnering deals

- Numerous examples of preclinical partnering deals for assets in ProMIS areas, ~$50MM +/- up-front, total milestones $500MM - $700MM
- ProMIS in active discussions with potential large pharma partners for multiple assets
- ProMIS antibodies differentiated through better selectivity, better binding response to toxic mis-folded proteins in patient bio-samples
- ProMIS proven, unique platform for antibody discovery also a potential basis for a deal addressing new targets

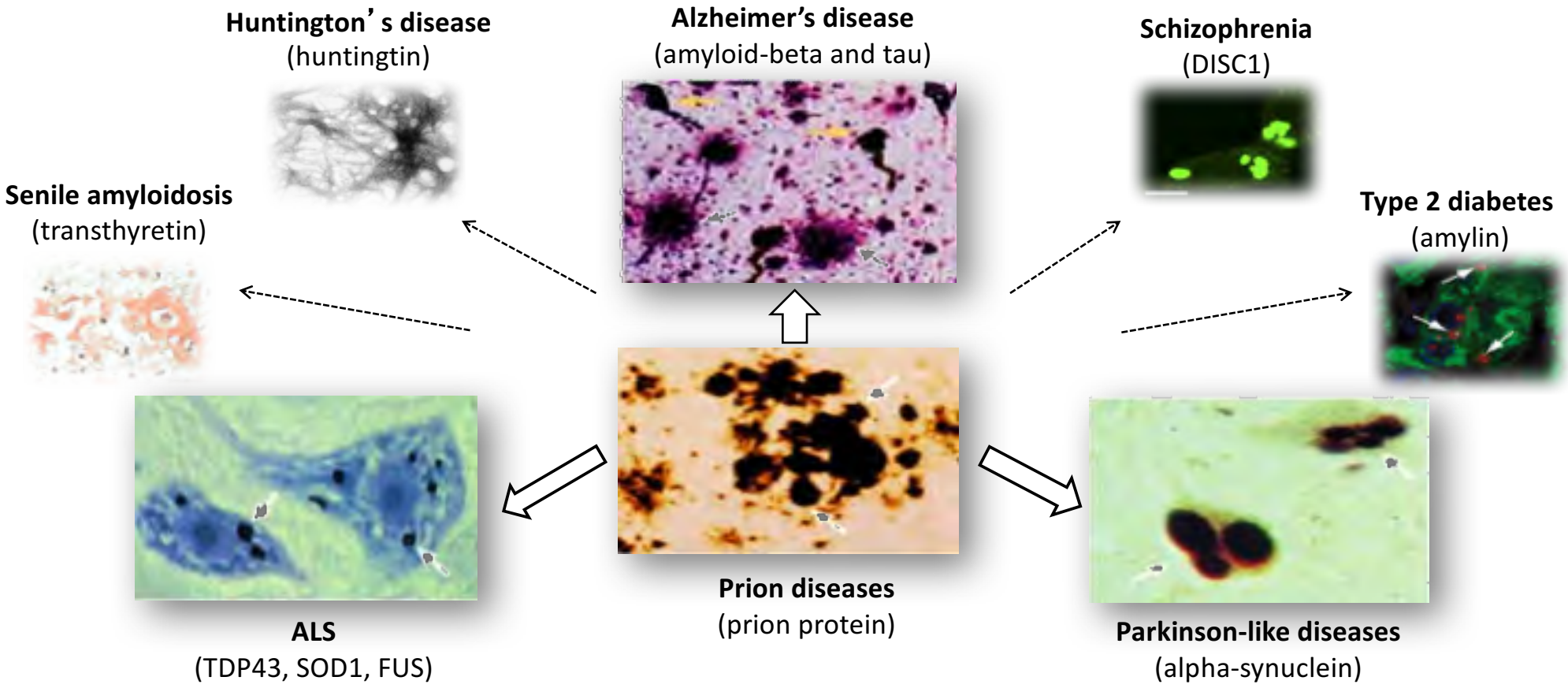
Medium term (2-4 year) value creation from early clinical data using biomarkers

- All ProMIS programs could generate clinical data in a 2-4 year timeframe, using biomarkers to show a disease modifying treatment effect
- ProMIS has identified clinical indications with enhanced odds of showing an effect in early trials – rapidly progressive, elevated biomarkers at baseline
- Clinical evidence of a positive treatment effect from any program, partnered or wholly owned, would further validate the unique antibody discovery platform and may lead to an M&A deal

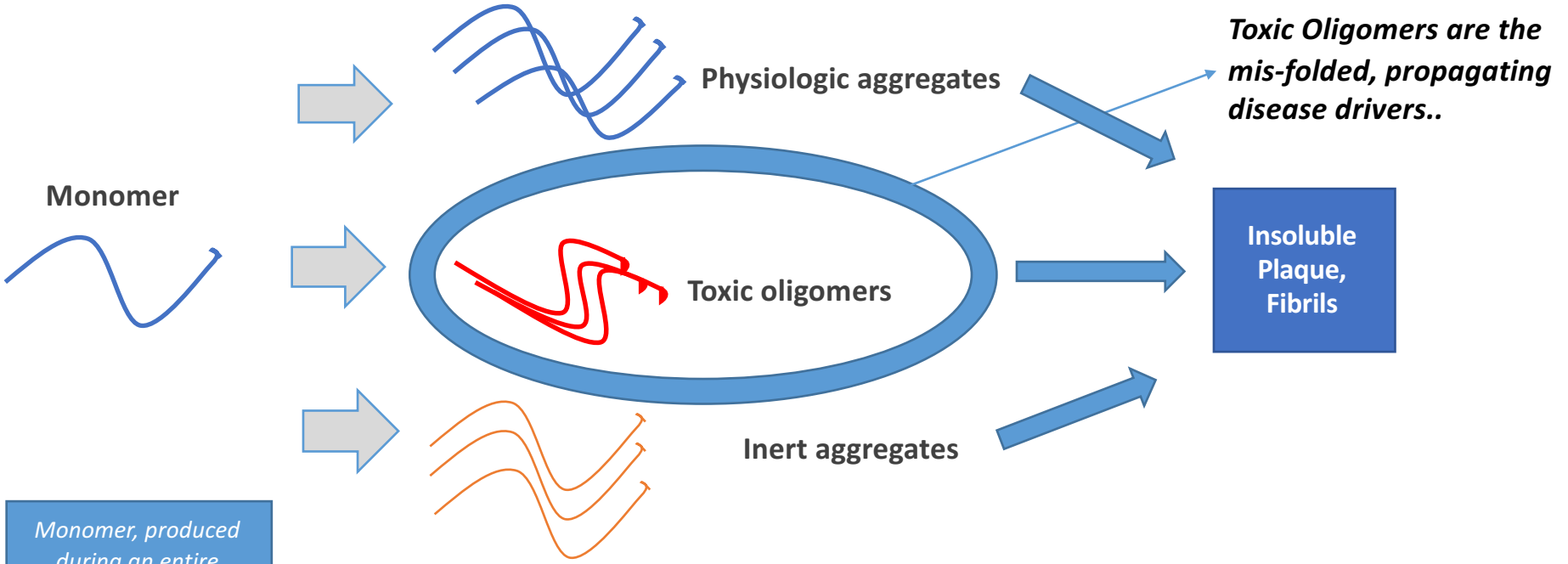
Agenda

- **The science of mis-folded protein diseases**
- ProMIS unique capability and portfolio in mis-folded protein diseases
- Using fluid-based biomarkers for dramatically improved efficiency in early clinical proof of concept
- Summary

Alzheimer's, Parkinson's and ALS are protein misfolding diseases, where the toxic mis-folded proteins propagate in a prion-like manner



Neurodegenerative protein molecular species start as monomer and then aggregate…..into soluble forms *with different biologic roles…..*



All the proteins that can mis-fold and drive disease are produced lifelong as *monomer*…nature is not wasteful, *monomer* has a biologic role..

Alpha-synuclein monomer aids DNA repair	Amyloid-beta monomer aids synaptic remodeling	TDP43 monomer/homodimer aids RNA transport
"Alpha-synuclein monomer is a 140 residues presynaptic protein that is believed to play an important role in the regulation of synaptic vesicle trafficking and release as well as neuronal survival" *Pieri L et al, Scientific Reports 2016*	*"Monomer has been found to be released endogenously during neuronal activity …and turned out to be required for normal synaptic plasticity and memory"* *Koppensteiner P et al, Scientific Reports, 2016*	*"TDP-43 binds both mRNA and DNA, thereby regulating mRNA splicing, stability and translation as well as gene transcription."* *Buratti and Baralle, J Biol Chem 2001* *Cohen et al, Trends Mol Med, 2011*
Mis-folded version leads to: ***- Parkinson's disease*** ***- Lewy Body Dementia*** ***- Multiple System Atrophy***	***Mis-folded version leads to:*** ***- Alzheimer's disease***	***Mis-folded version leads to:*** ***- ALS*** ***- Frontotemporal Dementia***

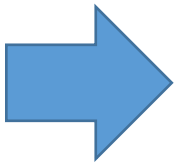
Cracking the code of neurodegenerative diseases….First requirement, products with high selectivity for the mis-folded, toxic target..

Right Target

- There are different forms, *molecular species,* of all the proteins involved in neurodegenerative diseases
- The toxic molecular species, usually the toxic oligomer, need to be the target for therapy
- Products that targeted the wrong form of amyloid have failed, the same may occur for products targeting the wrong form of tau, alpha-synuclein, etc

High Selectivity for the Right Target

- It is always best for a drug to be selective for the toxic target, to focus its therapeutic energy on the cause of disease
- Most drugs have a response proportional to dose. Lack of selectivity via binding to the wrong target drastically reduces the effective dose
- Products in the amyloid field that bound the toxic oligomer but were not selective have failed due to lack of selectivity



- ProMIS portfolio meets this requirement
- Highly selective antibodies for the toxic species
- Functional benefit, blocking neurotoxicity and propagation

Agenda

- The science of mis-folded protein diseases
- **ProMIS unique capability and portfolio in mis-folded protein diseases**
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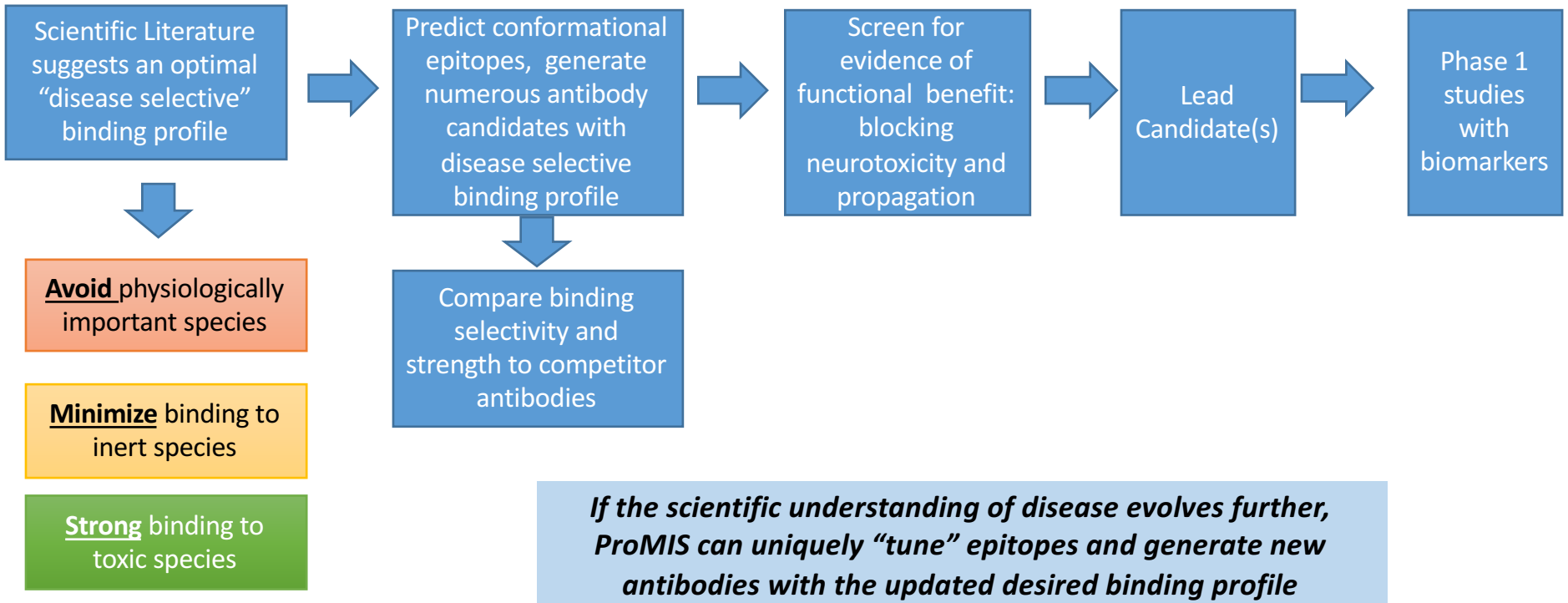
ProMIS' unique antibody design platform allows us to "tune" antibodies with the desired binding profile, then assess functional performance and comparative binding to select a lead candidate



If the scientific understanding of disease evolves further, ProMIS can uniquely "tune" epitopes and generate new antibodies with the updated desired binding profile

ProMIS portfolio: antibodies highly selective against mis-folded toxic species with no binding to monomer

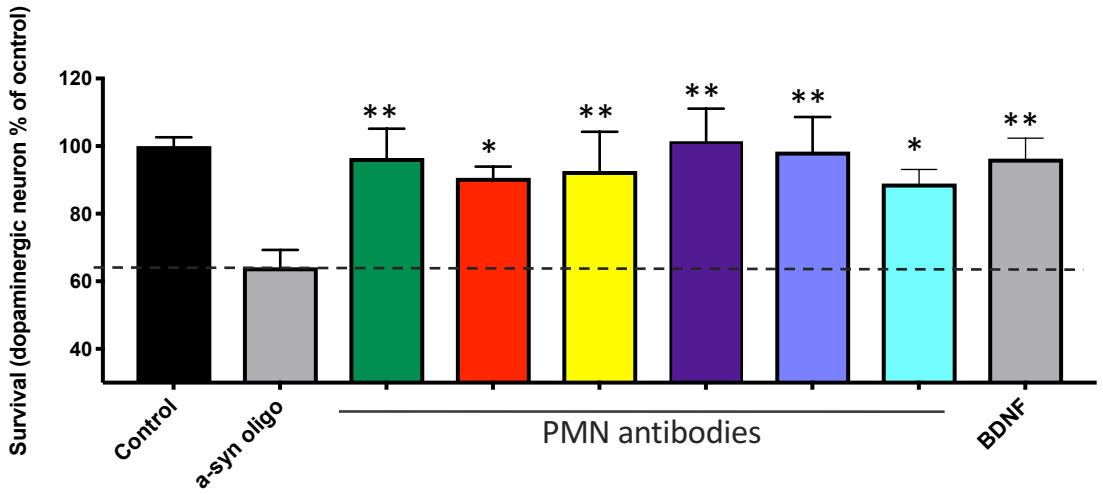
Protein/ Molecular Species Binding Target	Immunizations Epitope-conformation	mAbs selective for toxic species	Current status
Amyloid-beta	EP-300	✔	Lead selected
	EP-301	✔	Clinical candidate (PMN310)
BIND – Toxic Oligomers	EP-302	✔	Lacks biological activity
	EP-303	✔	Lead selected
AVOID – Monomer	EP-304	✔	Lacks biological activity
- Plaque	EP-305	✔	Lead selected
Tau	EP-501a	✔	
BIND – Toxic Oligomers	EP-501b	✔	Initial candidates
AVOID – Monomer, tangles	EP-501c	✔	
Alpha-synuclein	EP-401a	✔	2 candidates + additional under evaluation
BIND – Toxic Oligomers			
- Soluble Fibrils	EP-401c	✔	2 candidates + additional under evaluation
AVOID – Monomer			
- Physiologic Tetramer	EP-402a	✔	2 candidates + additional under evaluation
- Lewy Bodies			
	EP-402b	✔	1 candidate + additional under evaluation
TDP43	EP-201a	✔	1 candidate
	EP-201b	X	---
BIND – Toxic Oligomers	EP-201c	✔	3 candidates
	EP-202a	✔	2 candidates
AVOID – Monomer, Native	EP-202b	✔	1 candidate
Dimer	EP-203	✔	3 candidates
SOD1	EP-101	✔	Lead selected
BIND – Toxic Oligomers	EP-102	✔	Lead selected
AVOID – Native Dimer	EP-103	✔	Lead selected

ALPHA-SYNUCLEIN

ProMIS' unique technology platform has created antibodies that achieve the targeted binding profile….better than other α-synuclein-directed antibodies

Target Properties	PMN Antibodies	Prothena/ Roche	BioArctic/ ABBVIE	Neurimmune/ Biogen
No binding to monomers	✓	X	+/-	X
No binding to physiological tetramers	✓	X	+/-	X
Binding to oligomers/small soluble fibrils	✓	✓	✓	✓
Binding to native toxic α-syn in LBD/PD brain extract	✓	✓	✓	✓
Little or no binding to insoluble fibrils (Lewy bodies)	✓	X	X	X

ProMIS antibodies protect primary dopaminergic neurons against α-synuclein oligomer toxicity *in vitro*



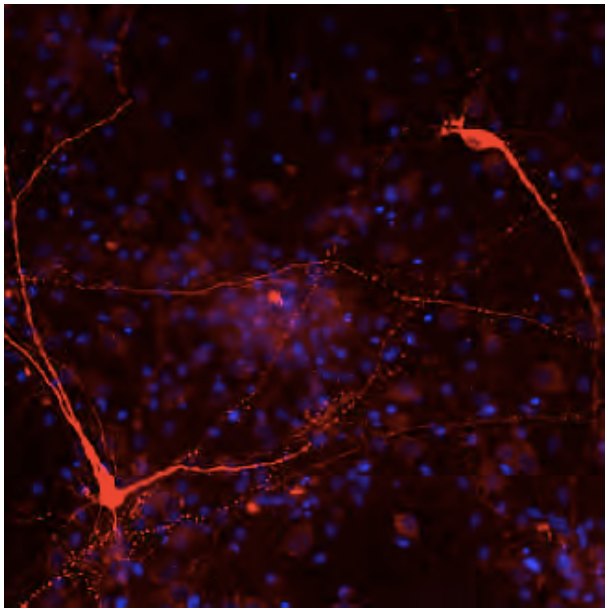
- Multiple antibodies provide neuroprotection in the same range as the brain-derived neurotrophic factor (BDNF) positive control
- Antibodies alone, as a control, had no effect on viability

ProMIS™ Neurosciences

*p<0.05, **p<0.01 vs a-syn oligomers alone

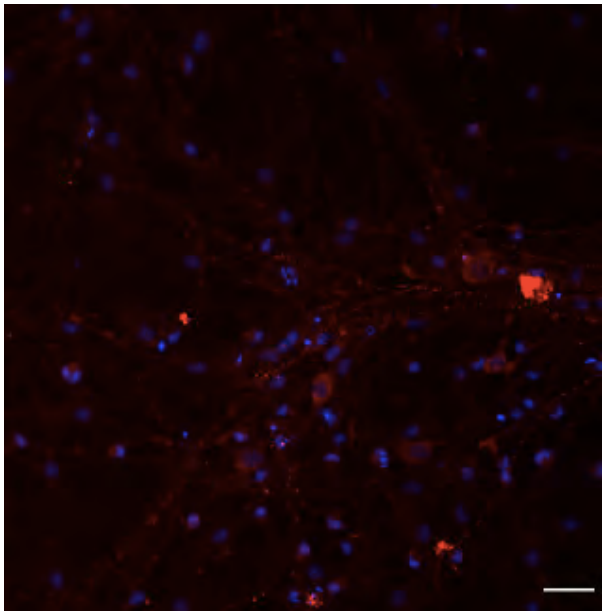
ProMIS antibodies provide protection from α-synuclein oligomer toxicity

CONTROL



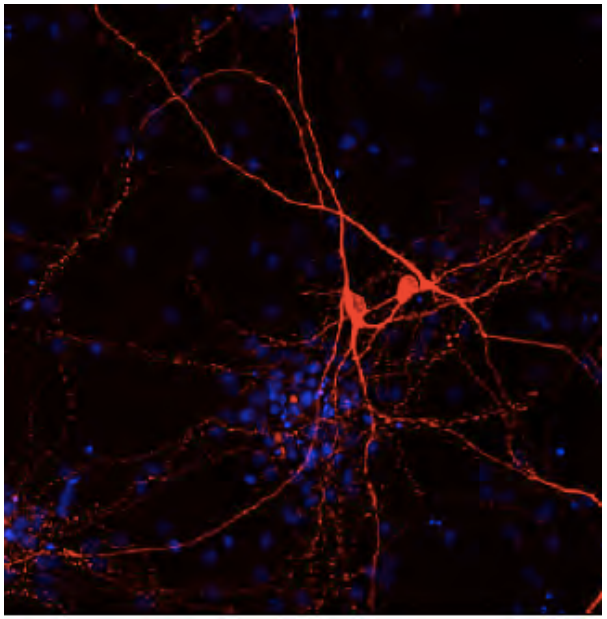
Normal neurons in bright red

α-SYN OLIGOMERS



Neurons killed by toxic oligomers

PMN ANTIBODY + α-SYN OLIGOMERS



Neuronal death blocked by PMN antibody

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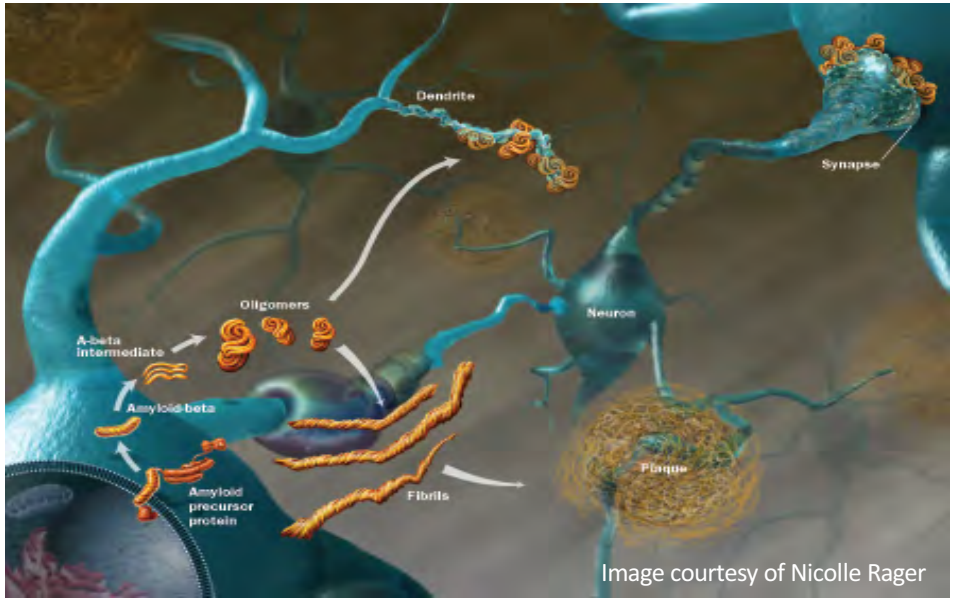
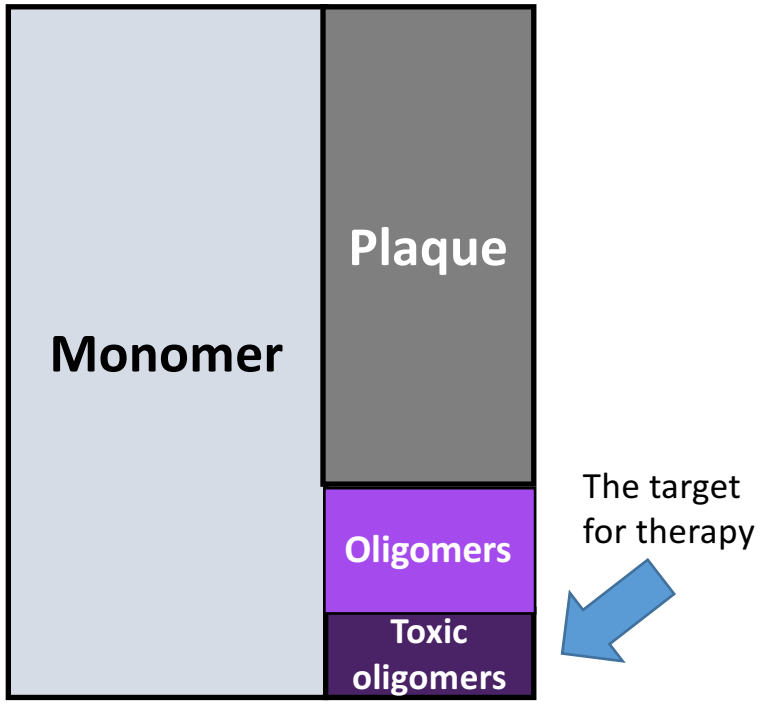
An example from Alzheimer's Disease: The critical need for *selectivity*

Toxic Aβ oligomers are a very small subset of the total amyloid in the brain



Soluble Aβ oligomers now recognized as the most neuropathogenic Aβ species -> Spread in a prion-like manner



Specific targeting of toxic Aβ oligomers required for optimal efficacy and safety

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Jacobsen et al, 22006, PNAS; Brier et al, 2016, Science Trans Med; Shankar et al, 2008, Nature Med; Cleary et al, 2005, Nature Neuroscience; Hong et al, 2016, Science; Benilova et al, 2012, Nature Neuroscience - Review; Lacor et al, 2007, J Neuroscience; Jin et al, 2011, PNAS; Lauren et al, 2009, Nature; [1]Balducci et al, 2010, PNAS

AMYLOID-BETA

Binding the right form of amyloid-beta is critical: the toxic oligomer is the target and PMN310 is the first oligomer-selective antibody therapeutic

Bapineuzumab
- Phase 2 failure
- Phase 3 failure
- ARIA-E side effect

Solanezumab
- Phase 2 failure
- Phase 3 failure

Aducanumab
- Phase 2 success
- ARIA-E side effect
- Phase 3 failure

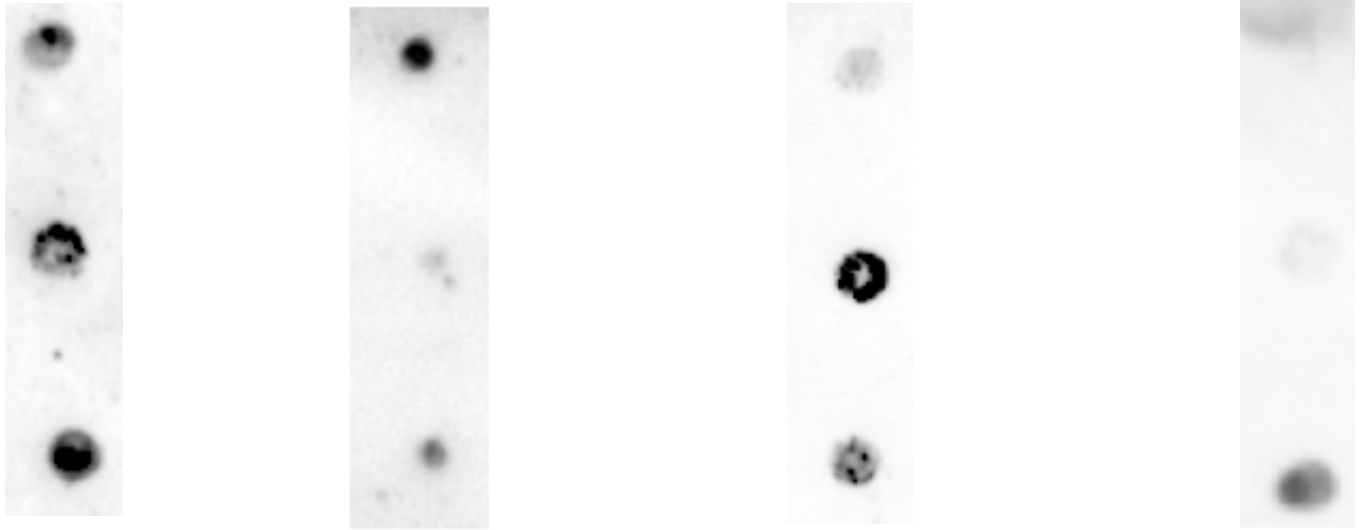
PMN310
- Selective binding to oligomers

-> Expected improvement in efficacy & safety

MONOMERS
- binding wastes therapeutic ammunition

FIBRILS (Plaque)
- binding wastes therapeutic ammunition
- contributes to ARIA-E side effect

OLIGOMERS*
- the right target



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* Synthetic oligomers

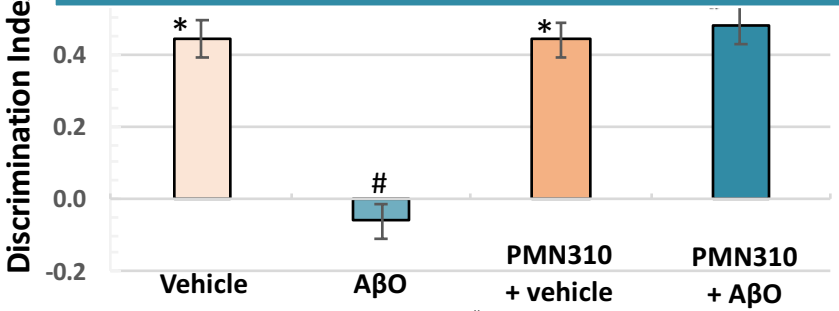
Administration of PMN310 to mice: prevents loss of short-term memory formation caused by toxic Aβ oligomers, by saving mouse neurons

THE EXPERIMENT

- Mice are tested for discriminating objects after brain injection of:
  - Buffer (vehicle) - normal response
  - Toxic Aβ oligomer
  - PMN310 and buffer (vehicle)
  - PMN310 and Aβ Oligomer

7 days

THE RESULTS



N=12 per arm, *different from AβO ($p < 0.05$), #different from vehicle ($p < 0.05$)

Novel Object Recognition Assay

- Control mice remember a familiar object when re-exposed to it and spend more time exploring a new object
- Oligomer-injected mice lose the ability to discriminate between known and novel objects and spend equivalent amounts of time exploring both

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Discrimination index = (Time exploring new object – time exploring familiar object) / total exploration time
Results press released January 9, 2017, www.promisneurosciences.com

Alzheimer's amyloid failed programs…..were all designed 10-15 years ago…….and focused on the wrong forms of amyloid….*wrong target*

Product	Company	Target/science hypothesis	Discovery Date	Failure Date	Time to Failure
Aducanumab	Biogen/ Neurimmune	**Plaque**/**plaque** reduction	2007	2019	**12 yrs**
Crenezumab*	Roche/ AC Immune	Binds all amyloid, including **monomer**/direct **plaque** reduction	2004	2019	**15 yrs**
BACE inhibitors*	Merck, Lilly, others (9)	APP/**reduce monomer**, in order to reduce **plaque**	2002-2008	2018	**10-15 yrs**
Solenezumab*	Lilly	Targets **monomer**/reduce **monomer** in order to reduce **plaque**	2000	2017	**17 yrs**
Bapineuzumab*	Pfizer. J&J	Binds all amyloid, including **monomer**/**plaque** reduction	2000	2012	**12 yrs**

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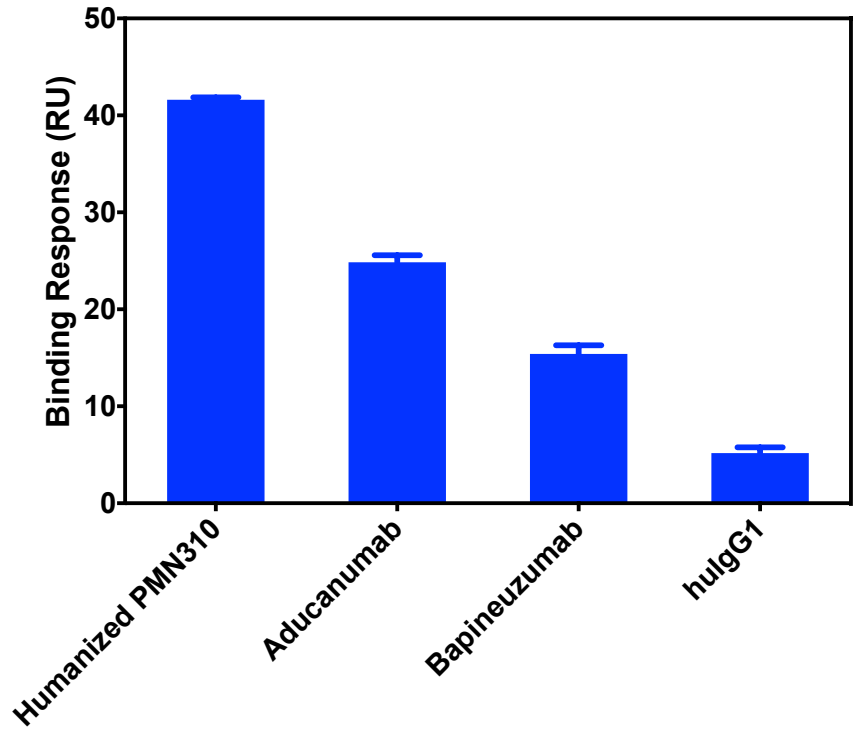
* All failed programs other than aducanumab targeted *monomer,* which has a biologic role

PMN310 shows superior binding to toxic oligomer-enriched fraction from human AD brains vs other antibodies directed against amyloid-beta



- Binding of antibodies to the toxic oligomer-enriched LMW fraction of soluble human AD brain extract was evaluated by surface plasmon resonance (SPR)
- Results representative of over 10 SPR runs with extracts from 11 different AD brains
- huIgG1 = Background control

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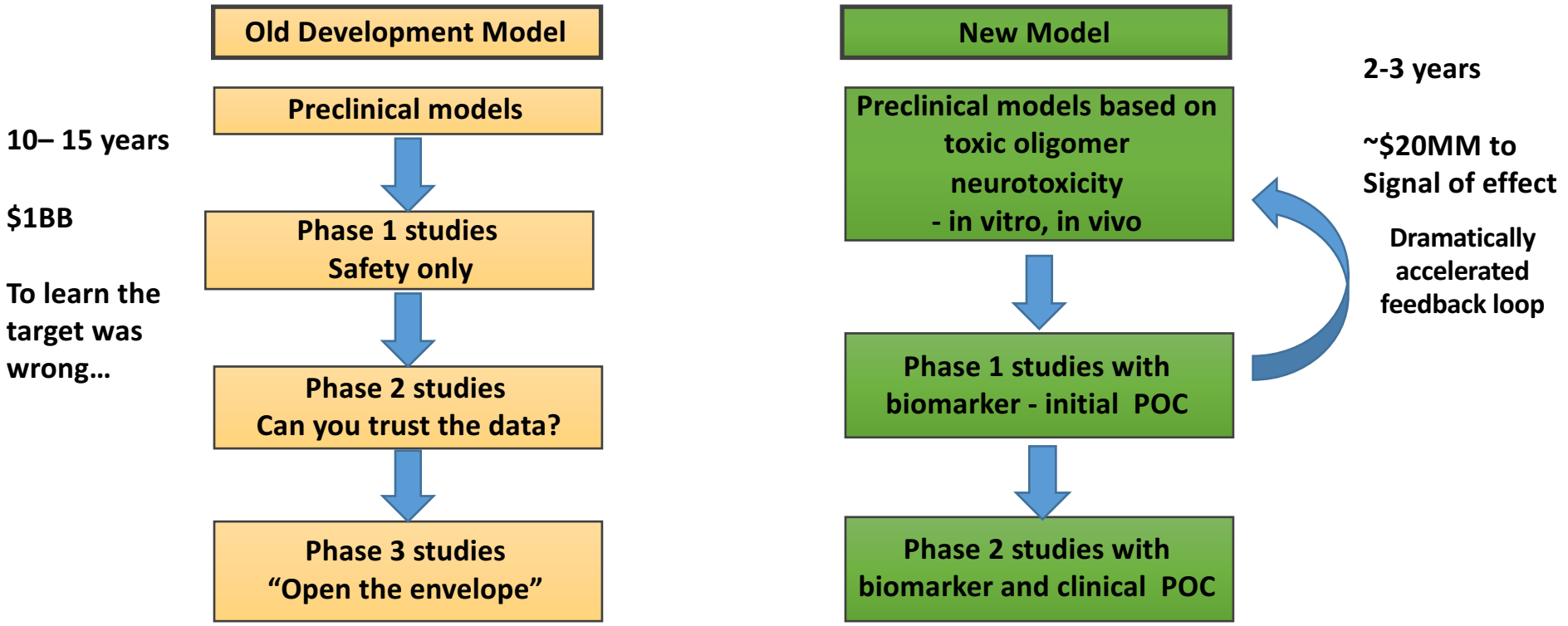
Source for comparative reagents: Creative Biolabs

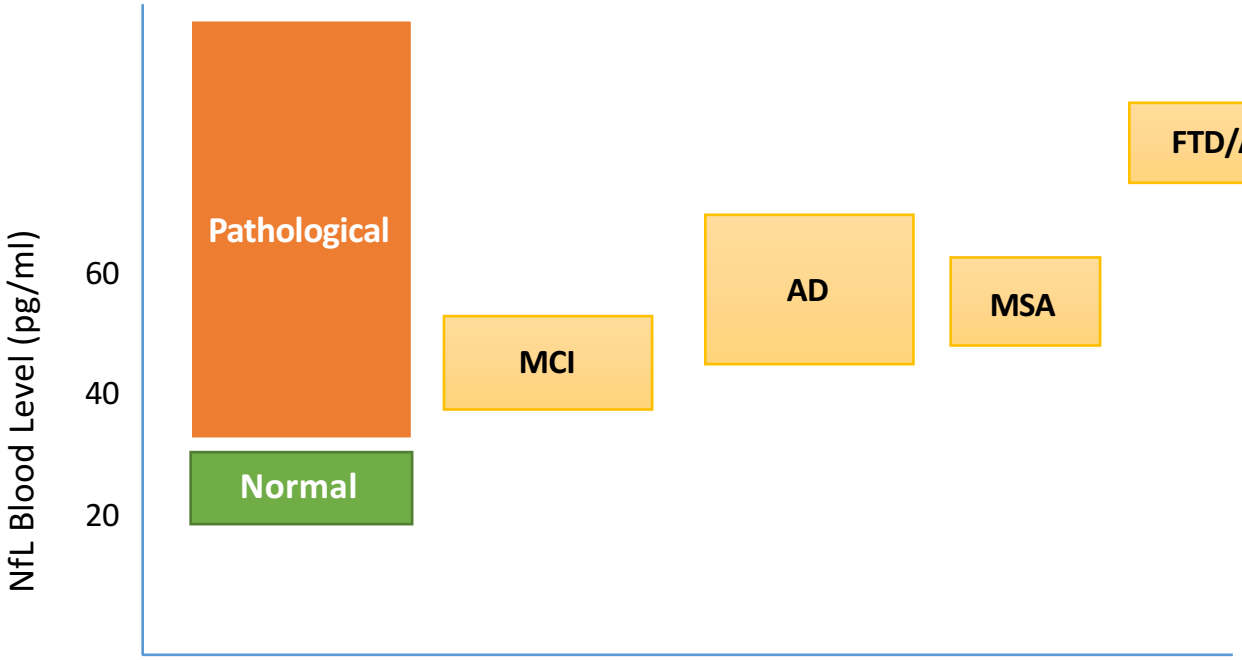
Agenda

- The science of mis-folded protein diseases
- ProMIS unique capability and portfolio in mis-folded protein diseases
- **Using fluid-based biomarkers for dramatically improved efficiency in early clinical proof of concept**
- Summary

A new development paradigm for Alzheimer's and other neurodegenerative diseases using biomarkers will dramatically improve cost, risk….and time to success



Neurofilament light chain (NfL) is a measure of the rate of neuronal death, a hallmark of neurodegenerative diseases…..



From *JAMA* Neurology, April 22 2019

" The findings suggest that plasma NfL can be used as a noninvasive biomarker associated with neurodegeneration in patients … and may be useful to monitor effects in trials of disease-modifying drugs"

Mattsson, et al, JAMA Neurology

Sources: from AAIC 2018 ABBVIE, Wash U, U Sorbonnne; Rohrer et al, 2016 AAN; Mattson et al, JAMA Neurology 2017

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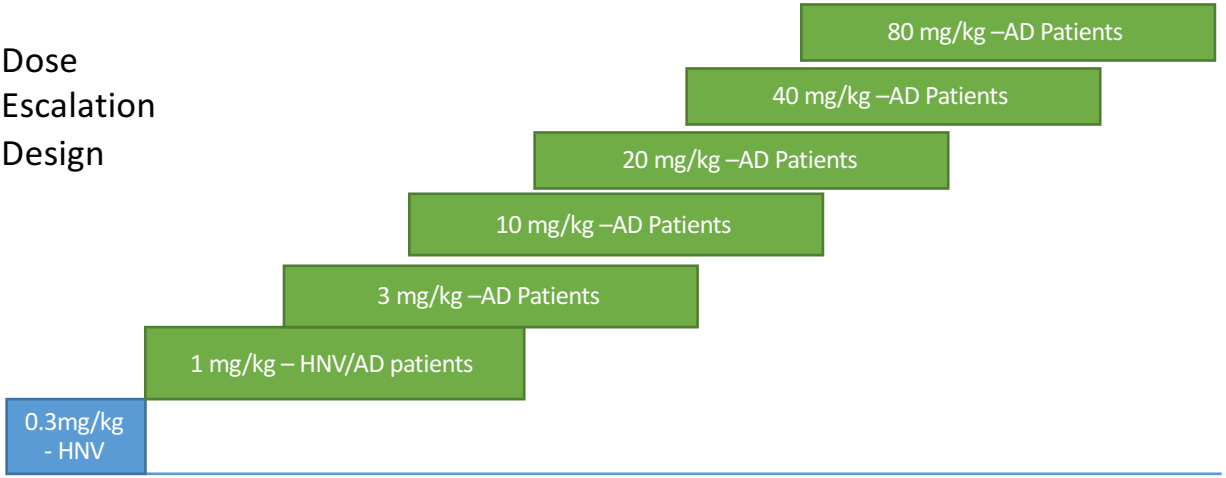
MCI – Mild cognitive impairment; AD – Alzheimer's disease; MSA – Multiple system atrophy
FTD – frontotemporal dementia, ALS – Amyotrophic lateral sclerosis

Phase 1 trial design concept: in higher dose arms, biomarkers can give a signal suggesting therapeutic benefit early in clinical development

Dose Escalation Design



3-month placebo-control, then 9-month open-label extension

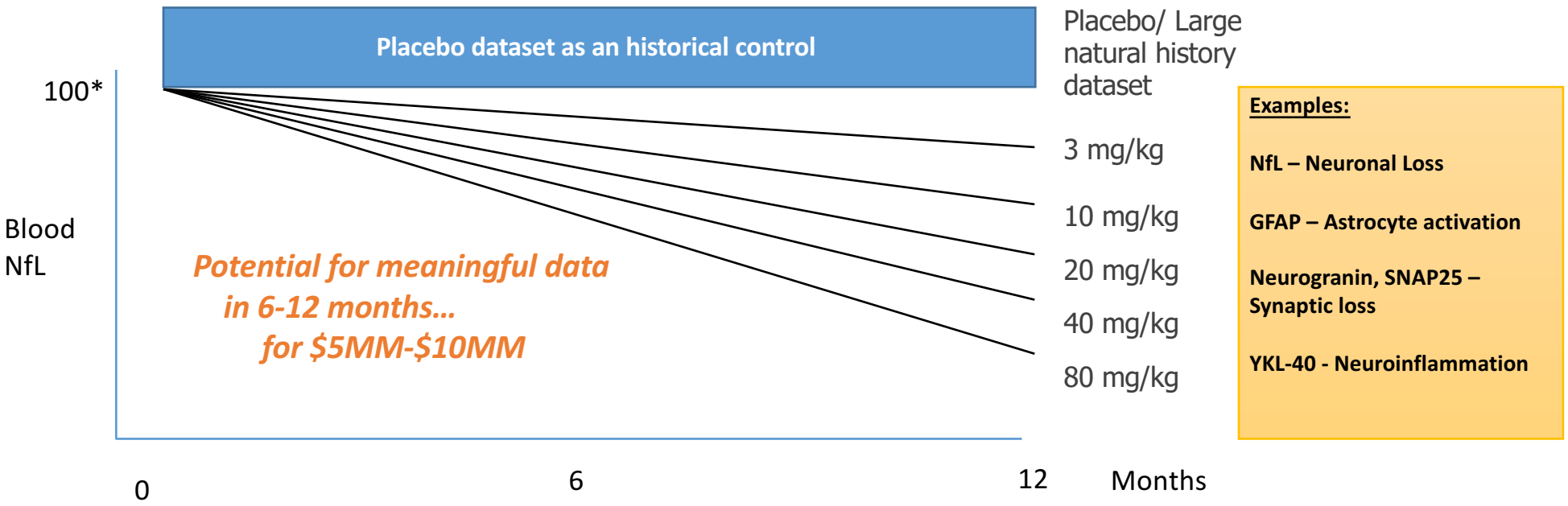
Growing list of predictive biomarkers under development to consider

HNV = healthy normal volunteers

Dose levels are representative examples, drawn from other neurodegenerative monoclonal antibody programs
Possibility to use HNVs in lower dose arms, or as sentinel subjects in each cohort

ProMIS™ Neurosciences

Hypothetical example – Phase 1 biomarker readout could show a disease modifying treatment effect in a dose dependent fashion *at a cost of $5MM-$10MM*



Examples:

NfL – Neuronal Loss

GFAP – Astrocyte activation

Neurogranin, SNAP25 – Synaptic loss

YKL-40 - Neuroinflammation

* 100 = patient baseline value

ProMIS™ Neurosciences

Agenda

- The science of mis-folded protein diseases
- ProMIS unique capability and portfolio in mis-folded protein diseases
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- **Summary**

ProMIS Differentiated Portfolio of Highly Selective Antibodies Creates Numerous Opportunities for Value Creation: Preclinical Partnering or Early Clinical POC Data

Protein Family	Diseases	Toxic Species: Target	ProMIS Program: Status	Clinical Proof of Concept Disease Indication: Raise Odds of Early Signal
Alpha Synuclein	Parkinson's Lewy Body Dementia Multiple System Atrophy (MSA)	Toxic Oligomer Soluble Fibril	Several antibodies with strong data - Differentiation: more selective, better binding to brain homogenate enriched for toxic species - Functional: block neurotoxicity and propagation LARGE PHARMA INTEREST, ACTIVE DISCUSSIONS	Multiple System Atrophy (MSA) - rapidly progressive, fatal 6-8 years from diagnosis - Elevated biomarkers (NfL, GFAP, others)
Amyloid Beta	Alzheimer's	Toxic Oligomer	Lead program PMN310 ready for final IND enabling work (Scientific Reports, 2019 paper) Significant advantages over previous amyloid therapies: Highly selective for oligomer, better binding of brain homogenate. Blocks cognitive deficit in mouse model, blocks neurotoxicity	Alzheimer's in Down Syndrome – POC for sporadic AD - High rate of AD due to excess amyloid, nearly 100% pathology by age 40 - Ability to treat both pre-symptomatic and symptomatic patients - Well organized trial community, use of biomarkers
Tau	Alzheimer's PSP, other tau-opathies	Toxic Oligomer	Initial antibodies with selective binding Ongoing immunizations, more antibodies under evaluation	Alzheimer's in Down Syndrome – As above
TDP43	ALS, Frontotemporal Dementia, LATE	Toxic Oligomer	Several antibodies with selective binding Preferential binding to patient biosamples vs controls LARGE PHARMA INTEREST, ACTIVE DISCUSSIONS	ALS , or ALS with FTD - Highly elevated biomarkers such as NfL - ALS community focused on biomarker POC
SOD1	ALS	Toxic Oligomer	Three antibodies with selective binding Positive in vivo data	ALS - ALS community focused on biomarker POC
Other Mis-folded Proteins	Hundreds	Misfolded Species	95% + success rate in "rational design" of highly selective antibodies for mis-folded species – *Unique Capability* LARGE PHARMA INTEREST, ACTIVE DISCUSSIONS	TBD

ProMIS Neurosciences: Summary Investment Thesis

ProMIS brings unique capabilities to mis-folded protein diseases like neurodegenerative diseases

- Diseases like Alzheimer's, ALS, Parkinson's are *mis-folded protein* driven.
- ProMIS track record of over 95% success
- Broad portfolio
- ProMIS platform provides a unique, competitive advantage

Near term (3-12 month) value creation through partnering deals

- Numerous examples of preclinical partnering deals for assets in ProMIS areas
- ProMIS in active discussions
- ProMIS antibodies differentiated
- ProMIS proven, unique platform

Medium term (2-4 year) value creation from early clinical data using biomarkers

- All ProMIS programs could generate clinical data in a 2-4 year timeframe, using biomarkers to show a disease modifying treatment effect
- Clinical evidence of a positive treatment effect from any program, partnered or wholly owned, would further validate the unique antibody discovery platform

PMN310 toxic oligomer selective antibody → Potential POC data, AD pre and post symptomatic, in Down Syndrome

ProMIS™ Neurosciences

Thank You

Please feel free to contact us with any additional questions.

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