Improving the Lives of Patients with Serious CNS Disorders

ASX: BNO
Nasdaq: BNOX

BNC210: A Novel First-in-Class Oral Therapeutic with Potential to Treat Social Anxiety Disorder

October 12, 2022

Bionomics

SAFE HARBOR STATEMENT

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Social Anxiety Disorder

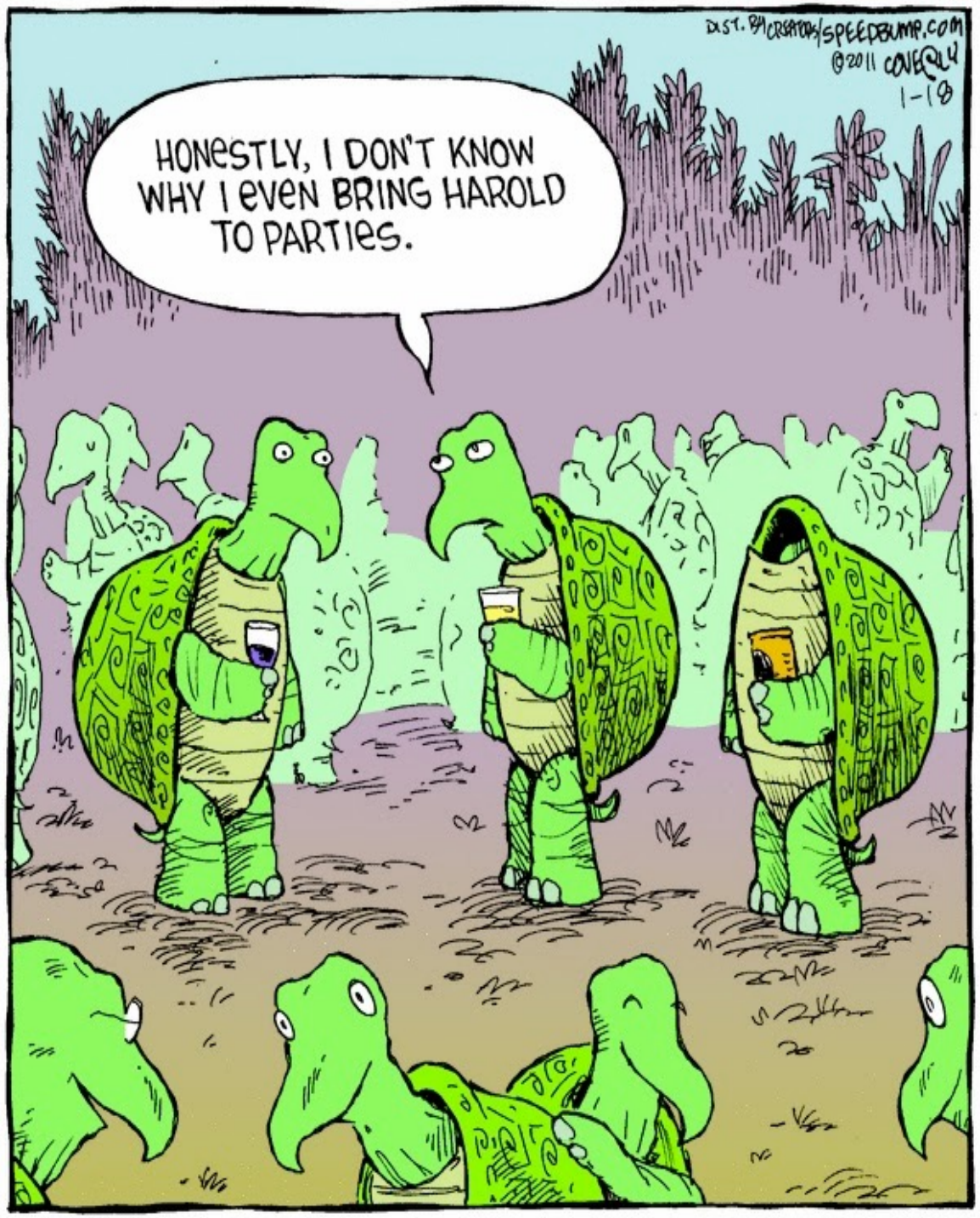
Murray B. Stein MD, MPH
Distinguished Professor of Psychiatry and Public Health
University of California San Diego

BNOX KOL Event
October 12, 2022

Symptoms of SAD

- Fear of scrutiny and embarrassment
  - Fear of negative evaluation
    - View criticisms and imperfect social performance as catastrophic
- Fear that others will notice anxiety symptoms
  - Embarrassment will result
- Worry about consequences
  - Others will think poorly of him/her
- Causes marked distress
  - And/or functional interference

Stein MB & Stein DJ. Lancet 2008; Craske MG & Stein MB. Lancet 2016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1-18
HONESTLY, I DON'T KNOW WHY I EVEN BRING HAROLD TO PARTIES.

On being asked if she would come in person to collect her prize, she said

> I am not mentally able to withstand that. I have a social phobia and cannot stand these large crowds of people. But I will certainly write a speech.

Elfriede Jelinek, Austria
2004 Nobel Prize winner in literature

US Anxiety Disorders Prevalence

National Comorbidity Survey Replication
NCS-R (N=9,282)

	12 Months (%)	**Lifetime (%)**
Social Anxiety Disorder	6.8	12.1
OCD	1.0	1.6
PTSD	3.5	6.8
Panic Disorder	2.7	4.7
Agoraphobia without Panic Disorder	0.8	1.4
Generalized Anxiety Disorder	3.1	5.7

Kessler RC et al. Arch Gen Psychiatry 2005;62:593-602 and 617-627.

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SAD: Cross-National Epidemiology

World Mental Health (WMH) Survey Initiative

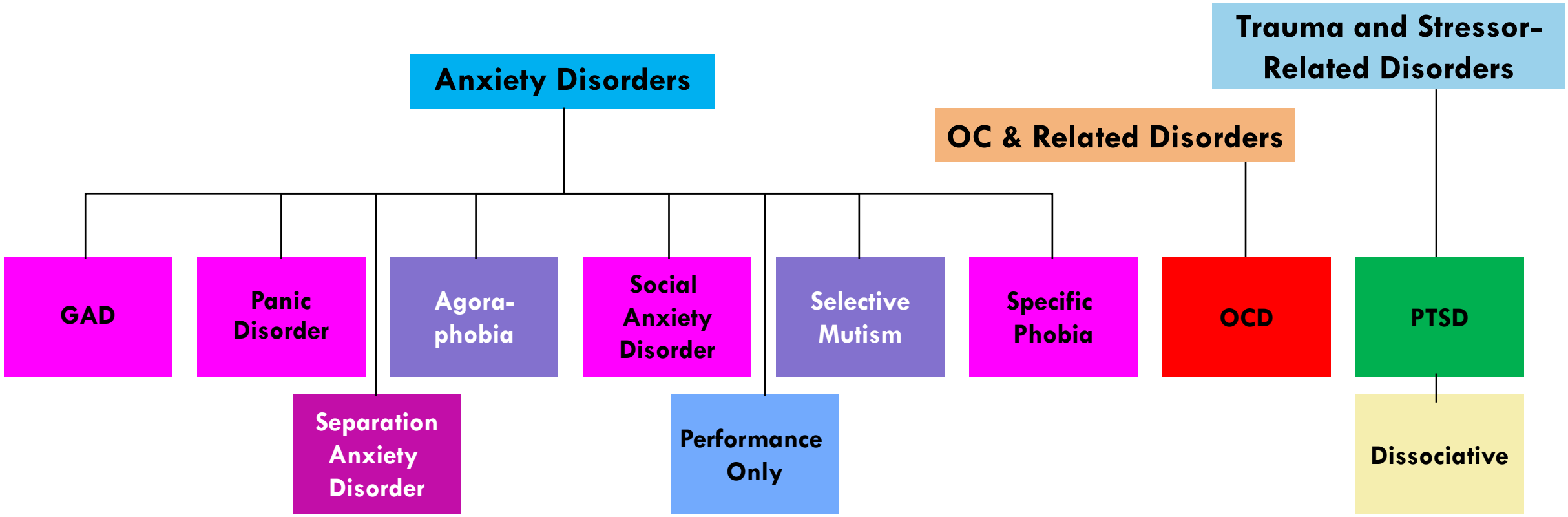
Data from 28 community surveys in the WMH Survey Initiative, with 142,405 respondents, were analyzed.

SAD 30-day, 12-month, and lifetime prevalence estimates are 1.3%, 2.4%, and 4.0% across all countries.

Also, across countries SAD is associated with specific socio-demographic features (younger age, female gender, unmarried status, lower education, and lower income) and with similar patterns of comorbidity.

Stein DJ et al., BMC Psychiatry 2017

Anxiety Disorders: DSM-5 Classification



American Psychiatric Association. 2013

“There are two types of speakers: those who are nervous and those who are liars.”

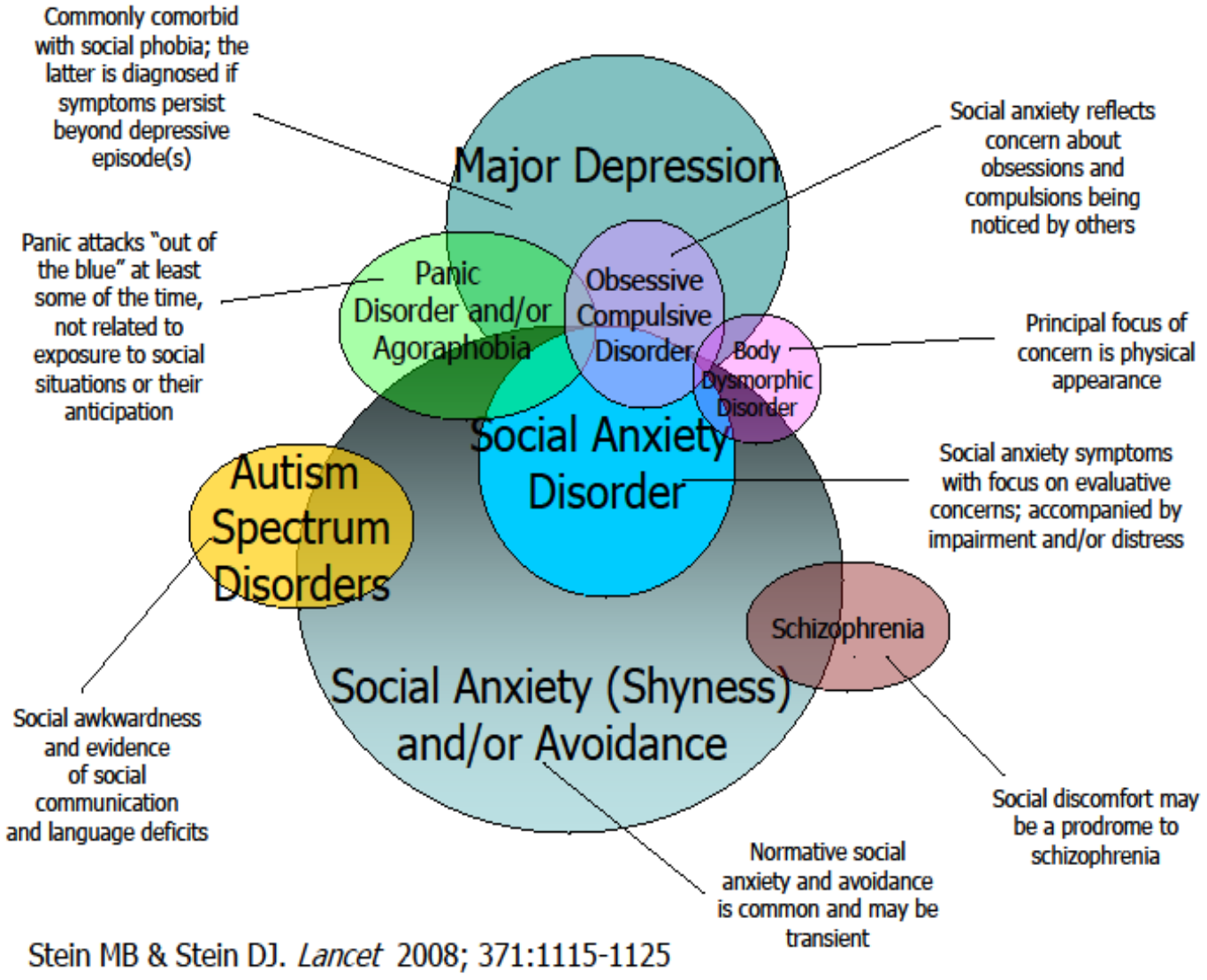
~Mark Twain

Specifiers within SAD

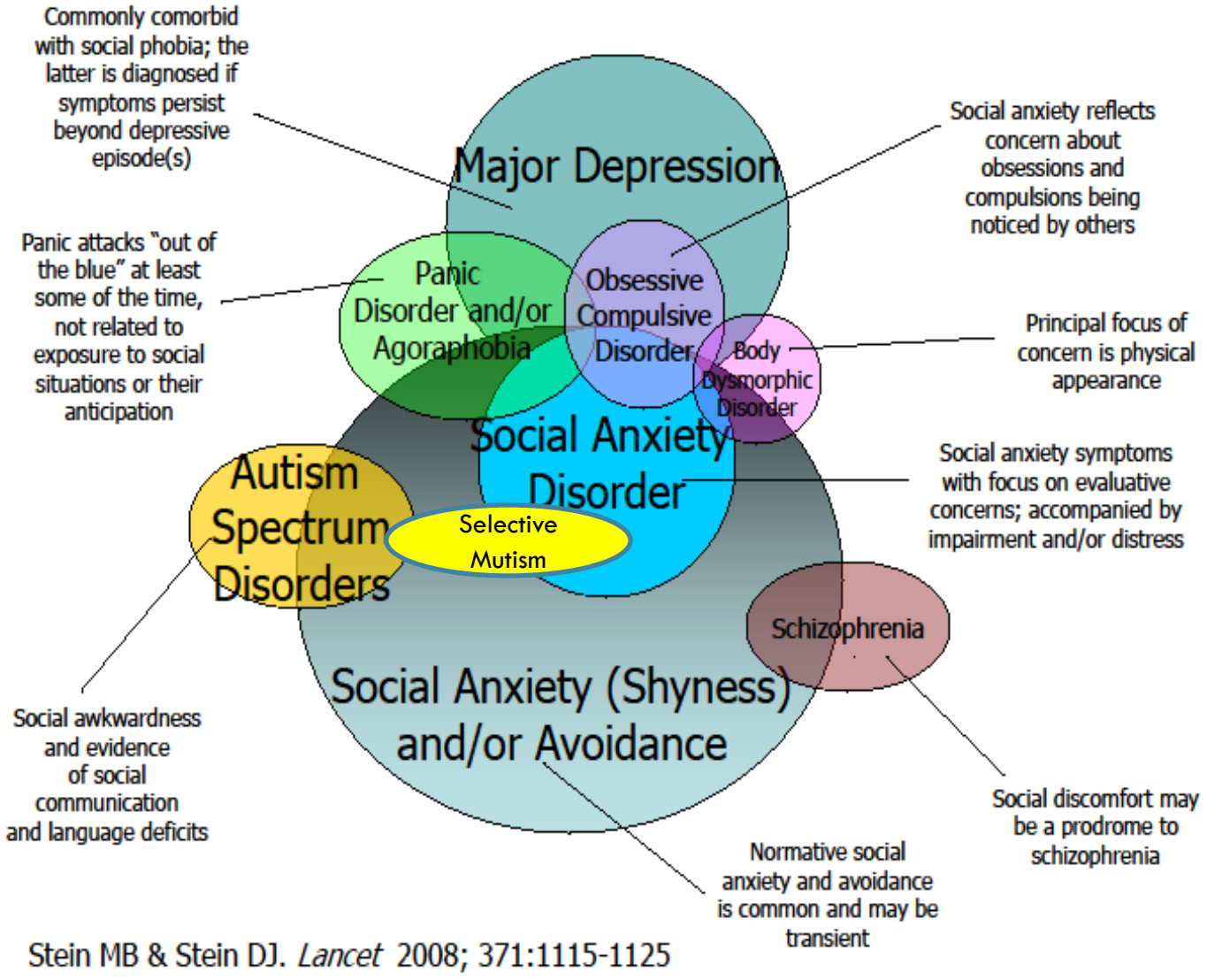
DSM-5 refers to subtypes ("specifiers")

- **Performance only:** If the fear is restricted to speaking or performing in public
  - Very common
    - ~ 2/3 of patients with SAD in the US

DSM-5. American Psychiatric Association 2012.



Stein MB & Stein DJ. *Lancet* 2008; 371:1115-1125



Stein MB & Stein DJ. *Lancet* 2008; 371:1115-1125

Approach to Rx for SAD

- Start with an SSRI or SNRI*
  - Optimize dosing
    - 8-12 weeks to evaluate response
- Non-responders
  - Add clonazepam, or
  - Switch to clonazepam, or
  - Switch to another SSRI or SNRI, or
  - Switch to a MAOI
  - Consider CBT

- Currently, the only FDA-approved medications for social anxiety disorder are sertraline, paroxetine, and extended-release venlafaxine.

Stein MB (2022). Pharmacotherapy for social anxiety disorder in adults. UpToDate.

Approach/Avoidance Conflict in SAD

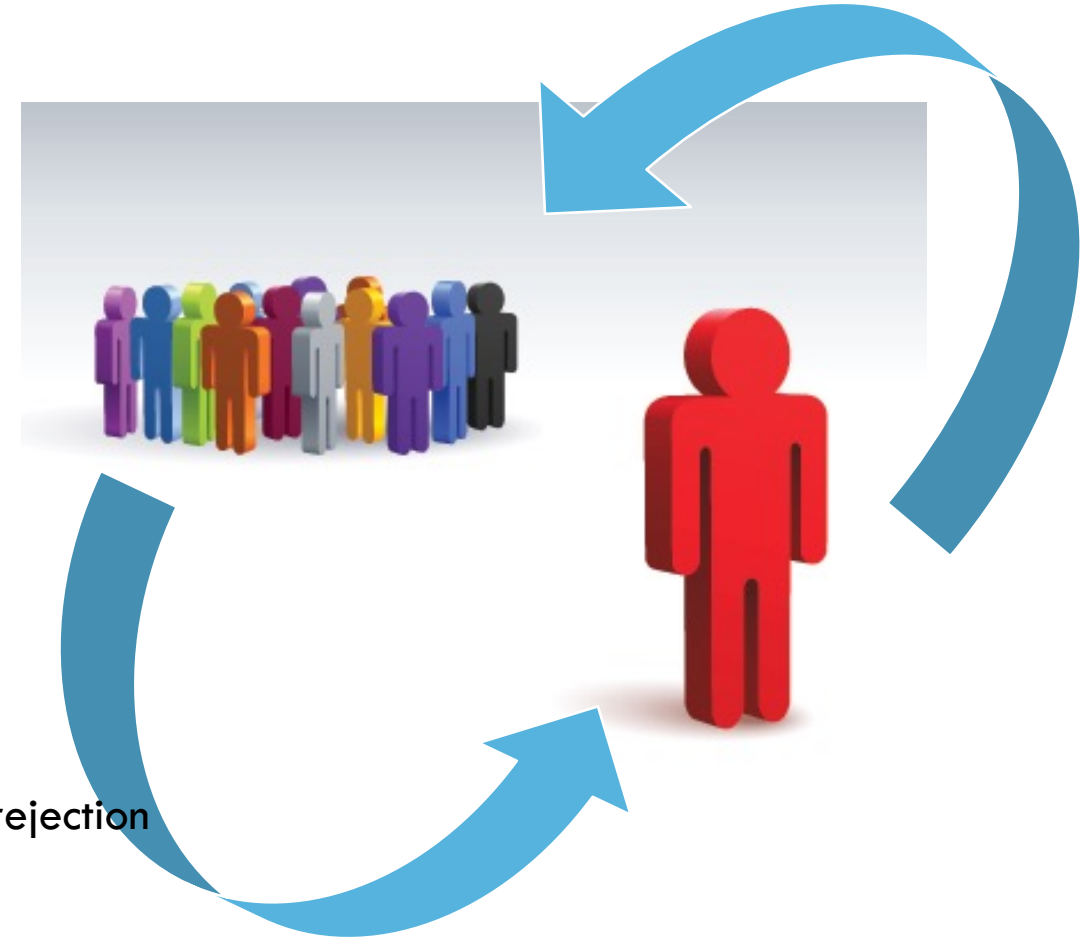
Courtesy of Charles Taylor PhD

Approach/Avoidance Conflict in SAD

Desire for affiliation & belonging (approach)

Courtesy of Charles Taylor PhD

Approach/Avoidance Conflict in SAD



Desire for affiliation & belonging (approach)

Fears of rejection (avoid)

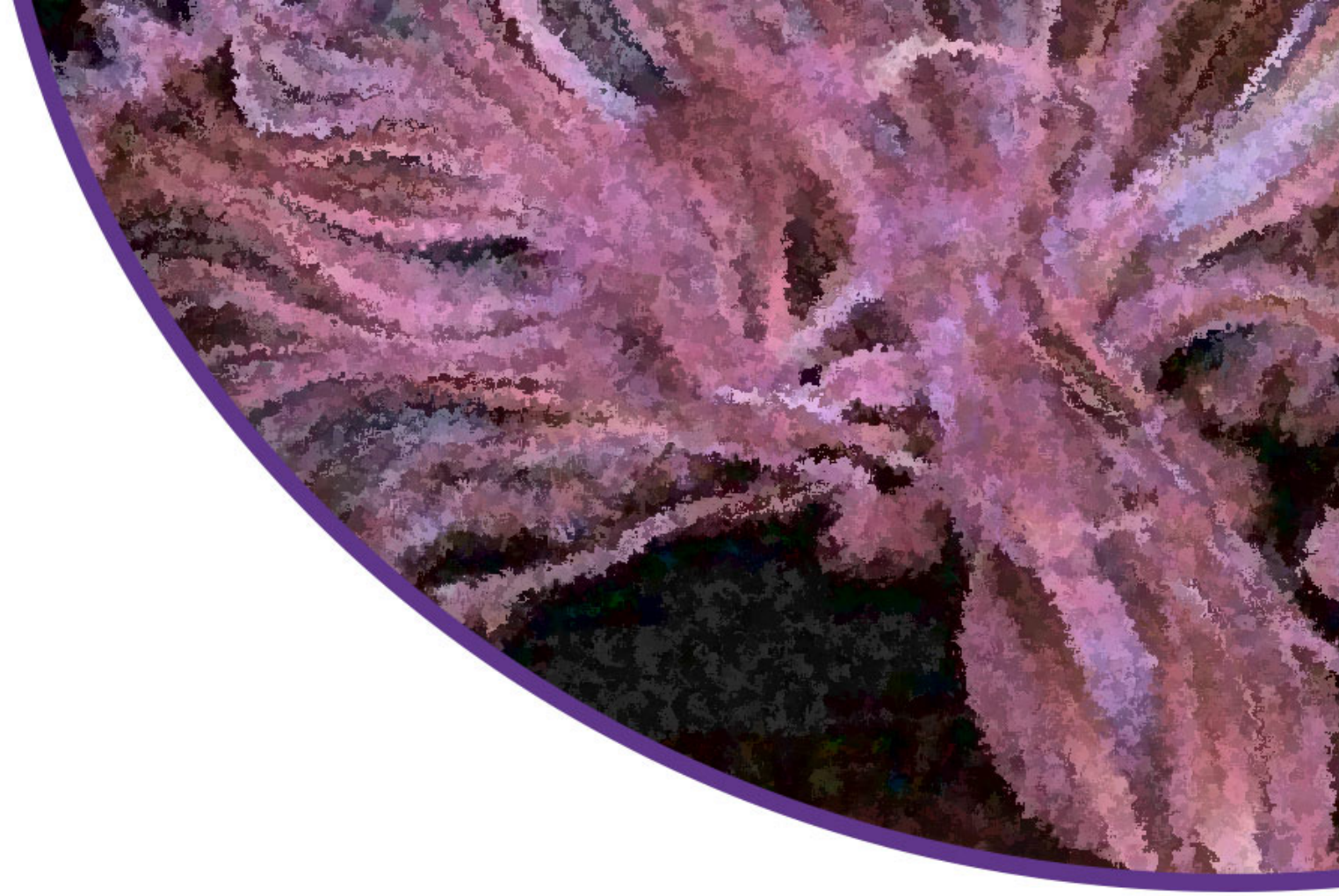
Courtesy of Charles Taylor PhD

Summary

- Social Anxiety Disorder (SAD) is highly prevalent
  - 12-month prevalence 2-6%
    - By far the most common anxiety disorder
    - One of the most common mental disorders
- Evidence-based treatments for SAD are available
  - SSRI/SNRI
  - CBT
  - But penetrance of use is low
    - Combination of low provider and consumer knowledge of availability and efficacy of existing treatments
- New and more efficacious and better-tolerated Rxs needed
  - In concert with renewed public and physician awareness

Assessing the Efficacy of BNC210

Charles T. Taylor, PhD



UC San Diego Health

Key Features of BNC210

Onset of action = FAST (~ 1 hour to peak)

Intended use = AS NEEDED

Effects should therefore be demonstrated = ON DEMAND

Gold-standard efficacy assessment in SAD

Liebowitz Social Anxiety Scale (LSAS)

0 Not at All	0 Never
1 Mildly	1 Occasionally (1-33%)
2 Moderately	2 Often (34-66%)
3 Severely	3 Usually (67-100%)
Fear or Anxiety	**Avoidance**

5. Talking to people in authority.....
6. Acting, performing, or giving a talk in front of an audience...
7. Going to a party.....

*** 24 items in total**

Gold-standard efficacy assessment: *Challenges*

- Retrospective reporting
- Anxiety responses may depend on factors that vary by context
- Hypothetical responses sometimes required (e.g., dating)
- Immediate (acute) anxiety responses are not assessed

The solution: Behavioral efficacy assessment

What is a behavioral challenge?

- Test of anxiety reactivity
  - Provoke anxiety
  - Measure the person's response
- Targeted to the condition of interest
  - SAD: induce social evaluation
- Standardized
  - Identical procedures across participants and sites

Why use a behavioral challenge?

- High sensitivity
- Acute anxiety responses can be measured in real time
- Mimics real world scenarios
- Experimental control increases consistency
- Minimize attrition

Public speaking challenge: The BNC210 test

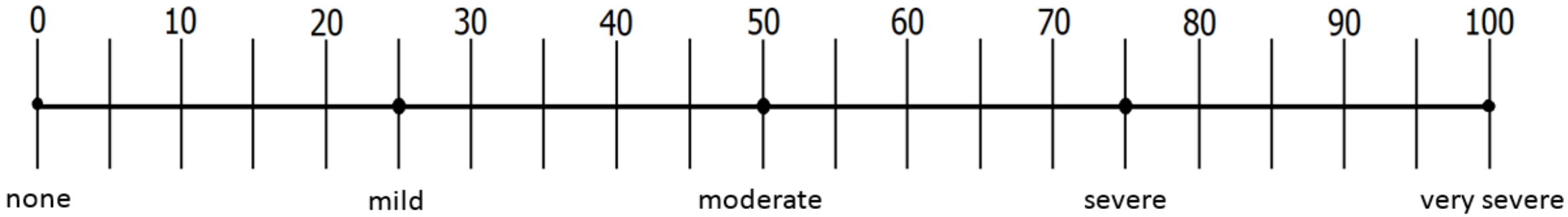
- Activates the core fear of SAD (negative evaluation)
- Most common anxiety-provoking situation in SAD
- Research supports its reliability and validity
- Sensitive to detecting acute treatment effects

Public speaking challenge: Key features

- 5 topic choices
  - Select 1 or 2
- 2 minutes to prepare
- 5 minutes to speak
  - Videorecording device
  - 3 audience members
- Anxiety is measured throughout

Single Anxiety Challenge

Primary outcome:
Subjective Units of Distress (SUDS)



Timeline of Efficacy Assessments

	Baseline / Pre-Dose	**Dosing**	**Resting Period** (55 mins post dose)	**Instructions on Challenge**	**Speech Preparation - Anticipation** (2 mins duration)			**Public Speaking Challenge - Performance** (5 mins duration)						**Post-Challenge** (30 mins duration)		
					0 min	1 min	2 min	0 min	1 min	2 min	3 min	4 min	5 min	10 min	20 min	30 min
Subjective Units of Distress Scale (SUDS)	X		X		X	X	X	X	X	X	X	X	X	X	X	X

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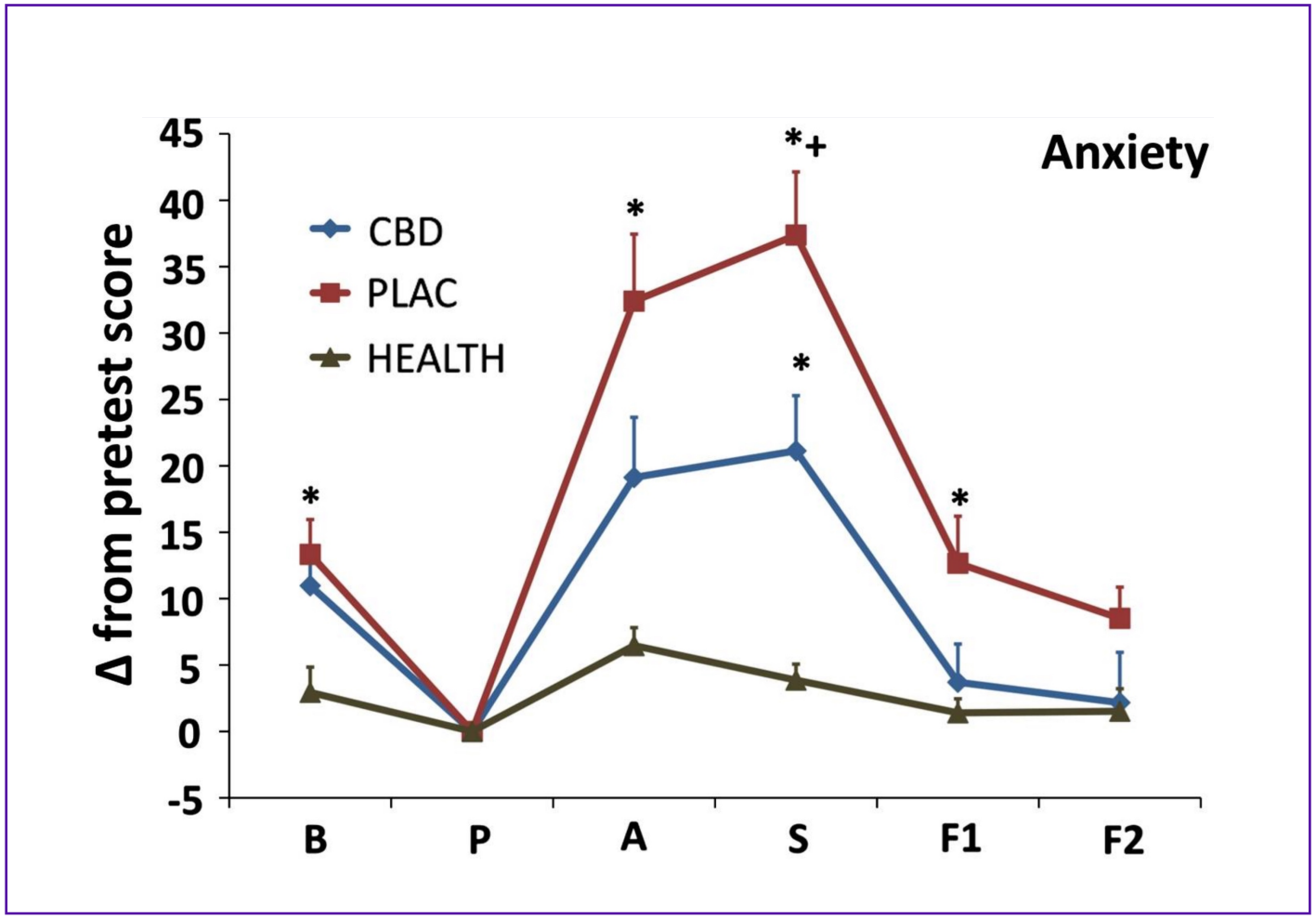
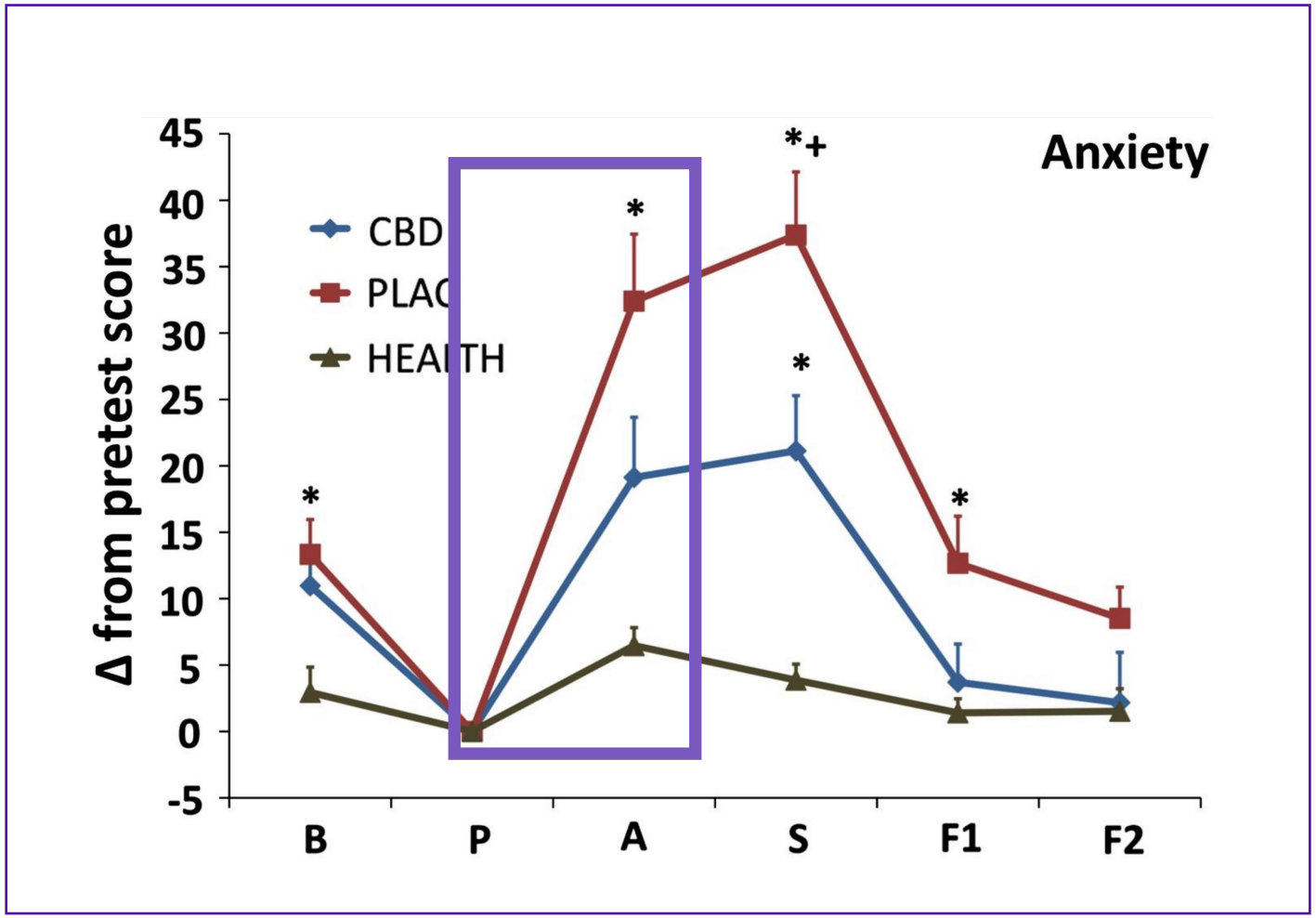
Subjective Units of Distress Scale (SUDS)	X		X		X	X	X	X	X	X	X	X	X	X	X	X

Public speaking challenge in clinical trials



Acute CBD for SAD: Bergamaschi et al. (2011)

Public speaking challenge in clinical trials



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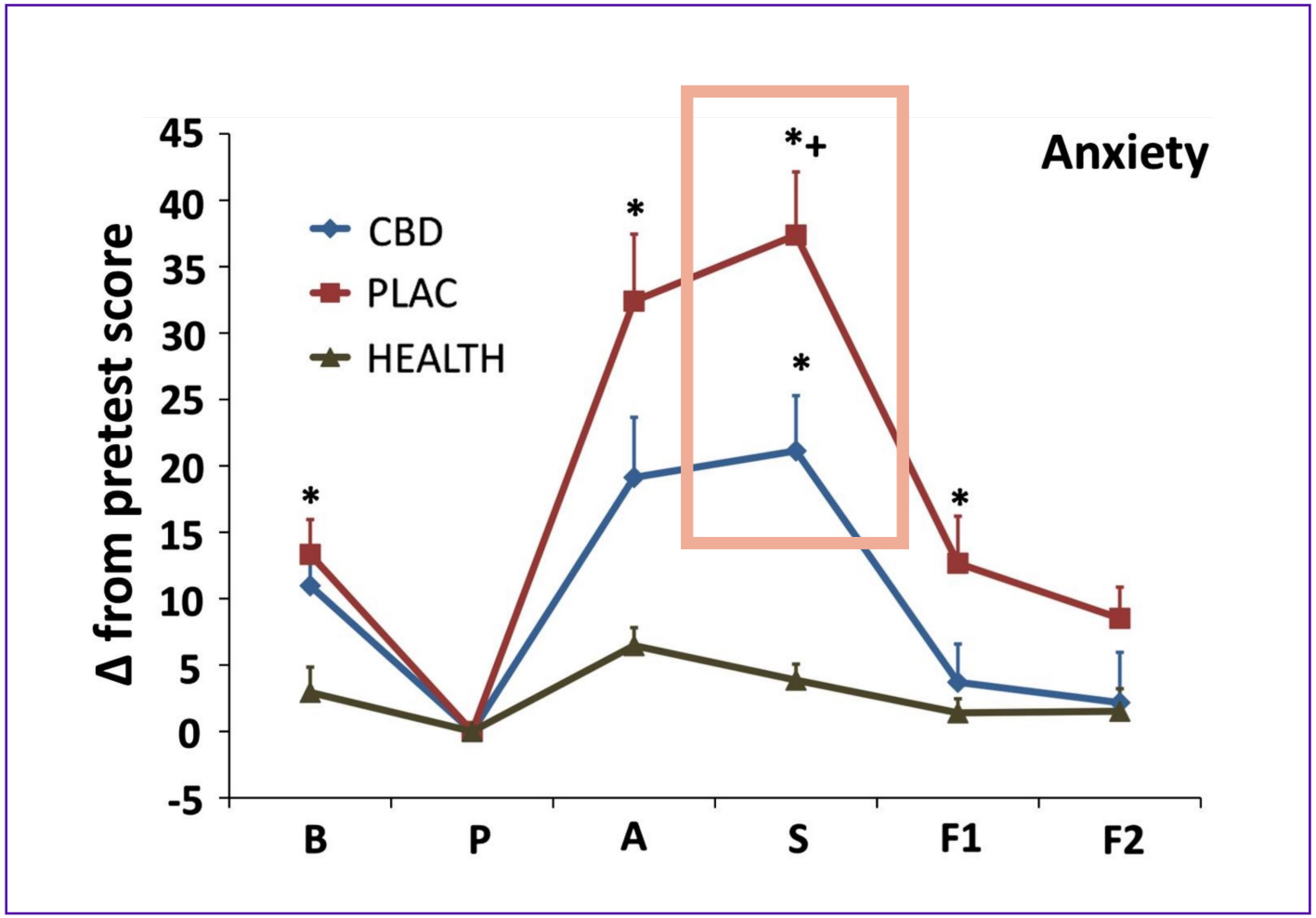

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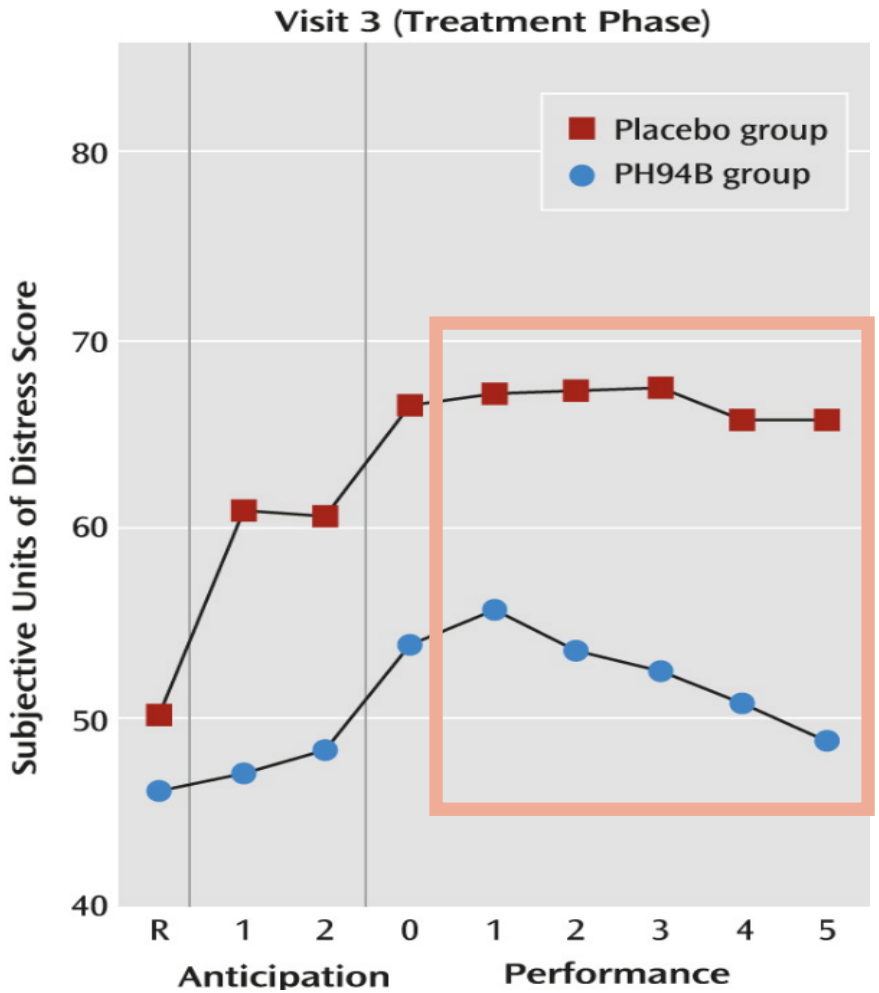
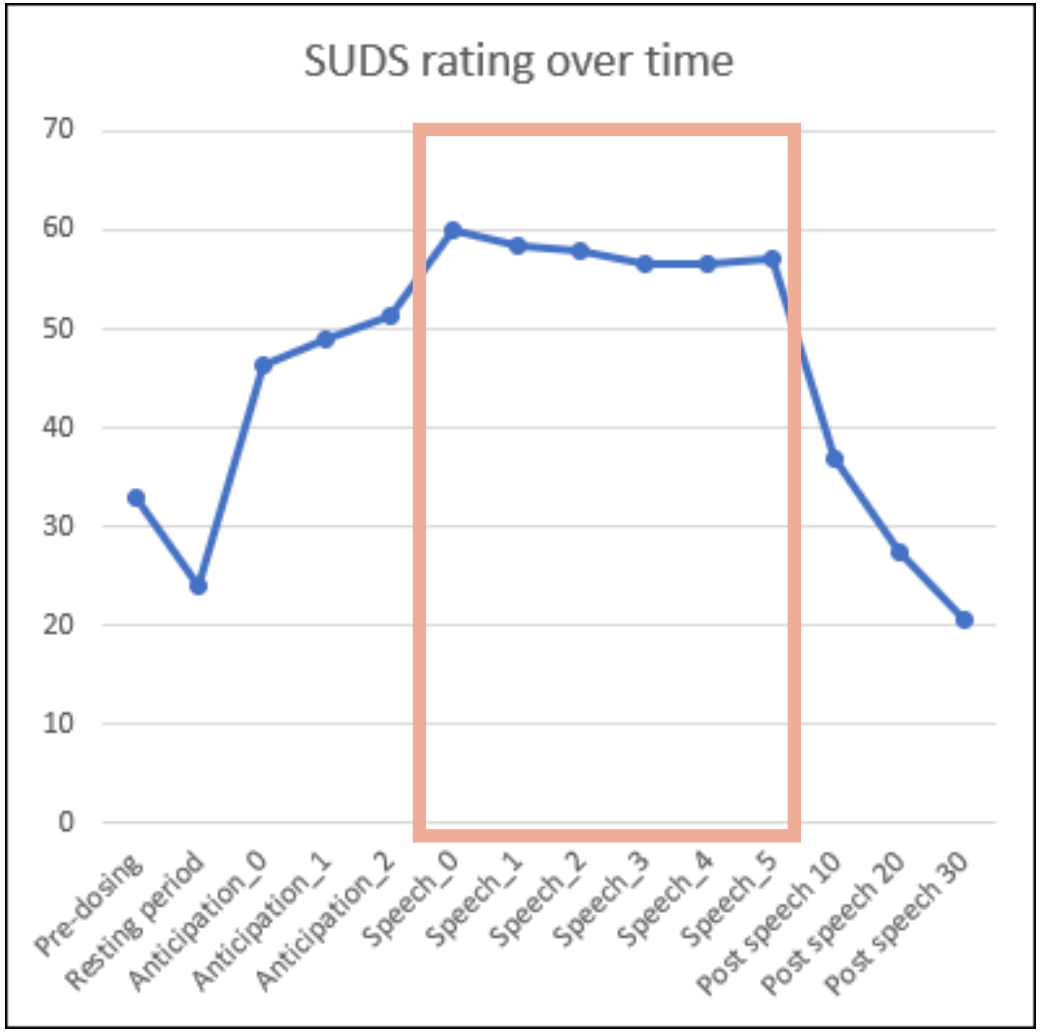


Acute Intranasal PH94B in SAD: Liebowitz et al. (2014)

Ensuring a robust and reliable test for BNC210

- Sample selection
- Between-subject design
- Standardization
  - Scripted instructions read verbatim
  - Protocol defining challenge parameters (e.g., room set-up)
  - Training video and mock participant demonstration
  - Investigator meeting training
  - Leader certification process
  - Refresher training
  - Site monitoring

Blinded SUDS data from BNC210 trial



- 100% initiated speech
- >90% completed 5 mins. speech
- Robust anxiety response
- Full anxiety recovery post-speech

Summary

- The public speaking challenge is a sensitive test of acute anxiety response
- It can be used to demonstrate *on demand* anxiolytic effects
- The BNC210 trial public speaking challenge demonstrates robust performance
- The anxiolytic effects of BNC210 will be rigorously tested in this trial

Company Update

Dr. Errol De Souza, PhD

BNC210: A Novel First-in-Class Oral Therapeutic with Potential to Treat Social Anxiety Disorder

October 12, 2022

Bionomics

Bionomics Highlights

Targeting Social Anxiety Disorder (SAD), Post-Traumatic Stress Disorder (PTSD) and cognitive dysfunction associated with Alzheimer's disease, schizophrenia and other CNS conditions

Lead Asset BNC210: Potential for $1.7B Peak Sales in SAD[1] and $2.6B Peak Sales in PTSD[1]

- ✓ IP coverage for BNC210 extending to late 2030s

BNC210 (negative allosteric modulator of the α7 nicotinic acetylcholine receptor)

- ✓ Clinical proof of concept in Generalized Anxiety Disorder (GAD[2]) and panic attack model
- ✓ In Phase 2 PREVAIL trial with FDA Fast Track designation for acute treatment of SAD
- ✓ In Phase 2b ATTUNE trial with FDA Fast Track designation for treatment of PTSD

Partnerships & Collaborations

- ✓ Strategic partnership with Merck for treatment of cognitive deficits in Alzheimer's and other CNS disorders
- ✓ MOU with EmpathBio for feasibility assessment of EMP-01 (MDMA derivative) & BNC210 for PTSD treatment
- ✓ Pipeline of partnering candidates targeting potassium (Kv) and sodium (Nav) ion channels

Cash runway beyond multiple near-term catalysts

CNS = Central Nervous System
MOU = Memorandum of Understanding

1. *Bluestar BioAdvisors*
2. *Wise et al 2020, Biological Psychiatry; Perkins et al 2021, Molecular Psychiatry*

Bionomics

Focused CNS Pipeline with Multiple Catalysts on the Horizon

Program	Indication	Pre-Clinical / Phase 1 / Phase 2 / Phase 3	Status
	Social Anxiety Disorder (SAD)	PREVAIL	Study underway Topline Data: YE 2022
BNC210 α7 receptor NAM	Post-Traumatic Stress Disorder (PTSD)	ATTUNE	Study underway Topline Data: mid 2023
EmpathBio	+MDMA derivative EMP-01 (PTSD)	MOU to explore combination treatment regimen	Feasibility assessment
MERCK Collaboration α7 receptor PAM	2 candidates for Cognitive Deficit in Alzheimer's		Phase 1 safety & biomarker studies ongoing
Nav1.7/1.8 Inhibitors Series Lead	Chronic Pain		Partnering Asset
Kv3.1/3.2 Activators Series Lead	Cognitive Dysfunction in Schizophrenia, Alzheimer's		Partnering Asset

NAM = Negative Allosteric Modulator
PAM = Positive Allosteric Modulator

FDA Fast Track designation

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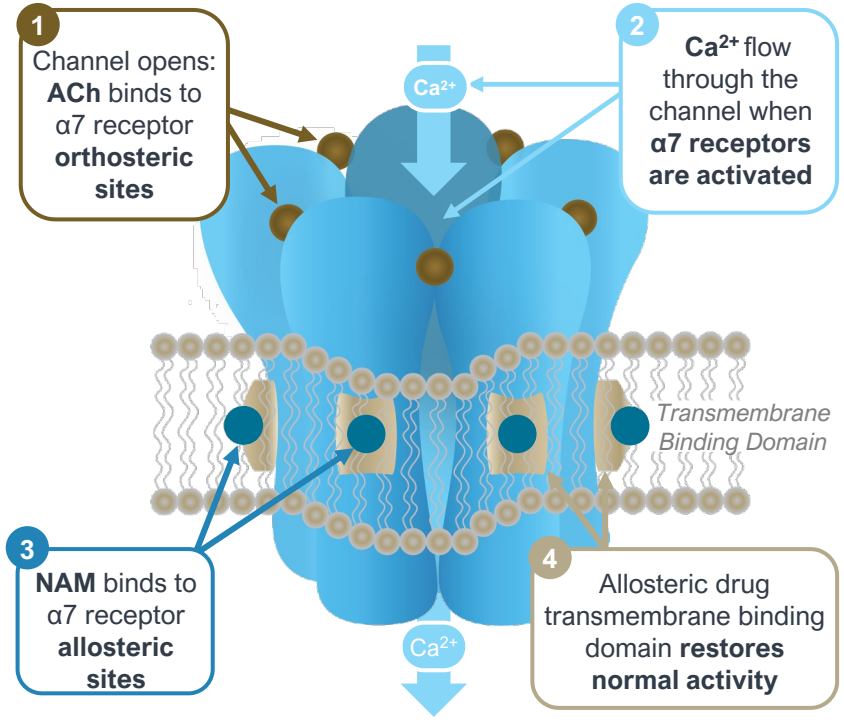
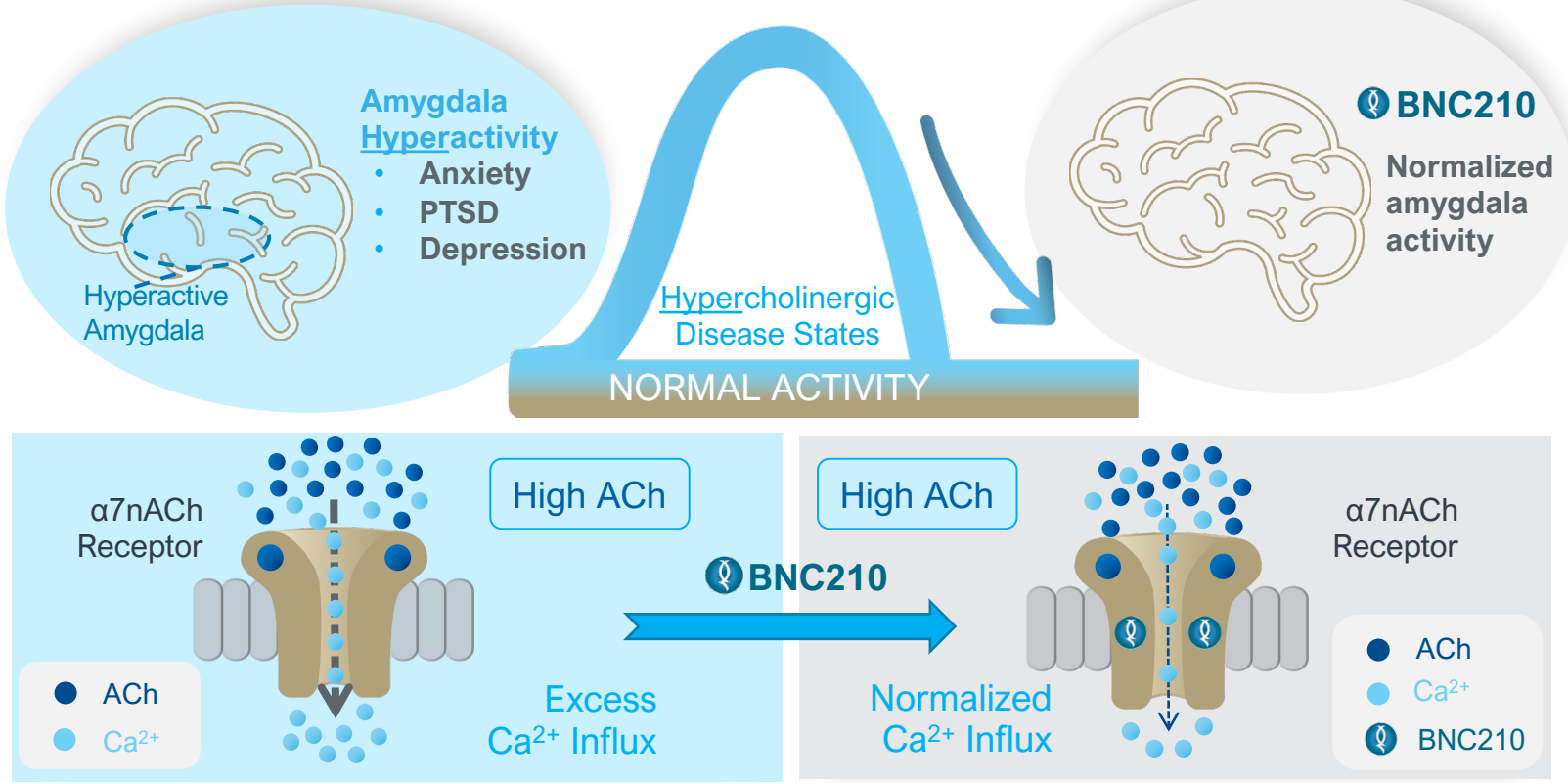
BNC210 Restores Neurotransmitter Balance through Allosteric Modulation of the α7 Nicotinic Acetylcholine (nACh) Receptor

Negative Allosteric Modulator of the α7 Nicotinic Acetylcholine Receptor

Normalizing Effect Utilizing Allosteric Modulation

Restoring Neurotransmitter Balance in Mood Disorders





Ca²⁺ = Calcium ions
ACh = Acetylcholine
NAM = Negative Allosteric Modulator
Cholinergic = System associated with memory, selective attention, and emotional processing cognitive functions
PTSD = Post-Traumatic Stress Disorder

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BNC210 Has Been in 12 Clinical Trials and Over 400 Individuals

Phase	Description	Participants / Setting	Subjects Enrolled / Administered BNC210*	BNC210 Formulation and Doses	Location
1	Single Ascending Dose Safety and PK	Healthy volunteers / In-clinic	32/24	Suspension; 5 to 2000 mg (single dose)	Australia
1	Single Ascending Dose Safety and PK; Food Effect	Healthy volunteers / In-clinic	4/3	Suspension; 300 to 2000 mg (single dose)	Australia
1	Single Ascending Dose Safety and PK; Food Effect	Healthy volunteers / In-clinic	47/40	Capsule; 300 to 3000 mg (single dose)	US
1b	Lorazepam Comparison	Healthy volunteers / In-clinic	24/22	Suspension; 300 and 2000 mg (single dose)	France
1b	CCK-4 Panic Attack Model	Healthy volunteers / In-clinic	60/59	Suspension; 2000 mg(single dose)	France
1b	Multiple Ascending Dose Safety and PK; Expanded Cohort for EEG Target Engagement	Healthy volunteers / In-clinic	56/44	Suspension; 150 to 1000 mg twice daily for 8 days	France
1	Suspension and Tablet Formulation PK Comparison	Healthy volunteers / In-clinic	6/6	Suspension and tablet; 300 mg (single dose)	Australia
1	Single Ascending Dose Safety and PK	Healthy volunteers / In-clinic	5/5	Tablet; 600 to 1200 mg (single dose)	Australia
1	Multiple Dosing Safety and PK	Healthy volunteers / In-clinic	10/10	Tablet; 900 mg twice daily for 7 days	Australia
2a	Imaging and Behavioral Study In Generalized Anxiety Disorder	Generalized anxiety disorder patients / In-clinic	27/25	Suspension; 300 and 2000 mg (single dose)	UK
2a	Agitation in the Elderly in Hospital Setting	Agitated elderly patients / Hospital	38/18	Suspension; 300 mg twice daily for 5 days	Australia
2	Post-Traumatic Stress Disorder	Post-traumatic stress disorder patients / Out-patient	193/143	Suspension; 150, 300 or 600 mg twice daily for 12 weeks	Australia US
2b	Post-Traumatic Stress Disorder	Post-traumatic stress disorder patients / Out-patient	Ongoing	Tablet; 900 mg twice daily for 12 weeks	US
2	Social Anxiety Disorder	Social anxiety disorder patients / In clinic	Ongoing	Tablet; 225 and 675 mg (single dose)	US

** The number of enrolled subjects who were administered BNC210; other enrolled subjects were administered placebo only*
CCK-4 = Cholecystokinin Tetrapeptide
EEG = Electroencephalography
PK = Pharmacokinetic

Bionomics

BNC210 Addresses the Shortcomings of Existing Social Anxiety Disorder Medications

		BNC210's ADVANTAGES COMPARED TO CURRENT THERAPIES*				
		Fast Acting	No Sedation	No Withdrawal Syndrome	No Cognitive or Memory Impairment	No Suicidal Ideation or Increased Suicide Risk
	BNC210	✓	✓	✓	✓	✓
Used off-label for as-needed treatment	Benzodiazepines**	✓	X	X[1] ⚠	X[4]	X[5]
Used off-label for as-needed treatment	Beta blockers***	✓	✓	✓	✓	✓
Approved for SAD	SSRIs / SNRIs****	X	✓	X[2,3]	✓	X[6]

⚠ *FDA black box warning*

See Appendix for references

**Potential benefits based on analysis of data from separate studies and not on results that might have been obtained from head-to-head studies. Such data may not be directly comparable due to differences in study protocols, conditions and patient populations. Accordingly, cross-trial comparisons may not be reliable predictors of the relative efficacy or other benefits of BNC210 compared to existing therapies or other product candidates that may be approved or are in development for the treatment of SAD.*

***Includes Valium and certain other benzodiazepines*

****Beta blockers address only the sequalae, e.g., physical symptoms such as blushing, increased heart rate, stammering of SAD but do NOT treat the underlying anxiety.*

*****Includes Prozac and certain other SSRIs (Selective Serotonin Reuptake Inhibitors) / SNRIs (Serotonin-Norepinephrine Reuptake Inhibitors)*

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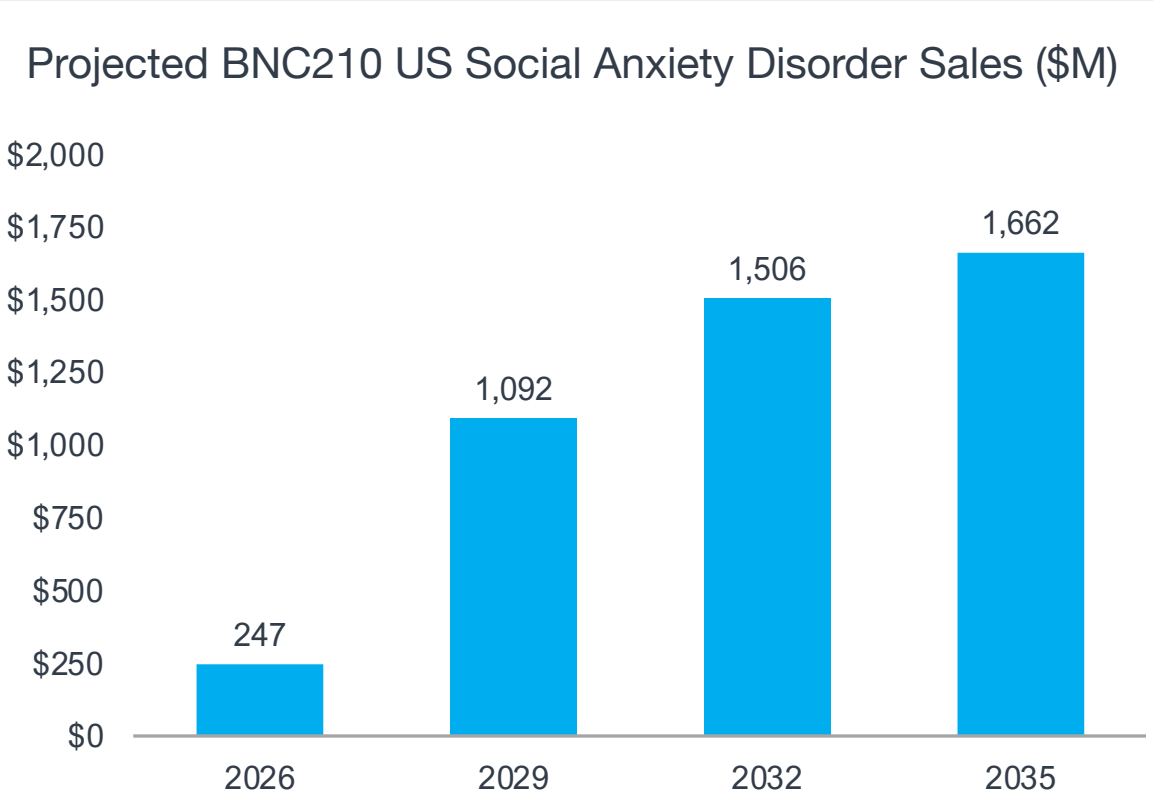
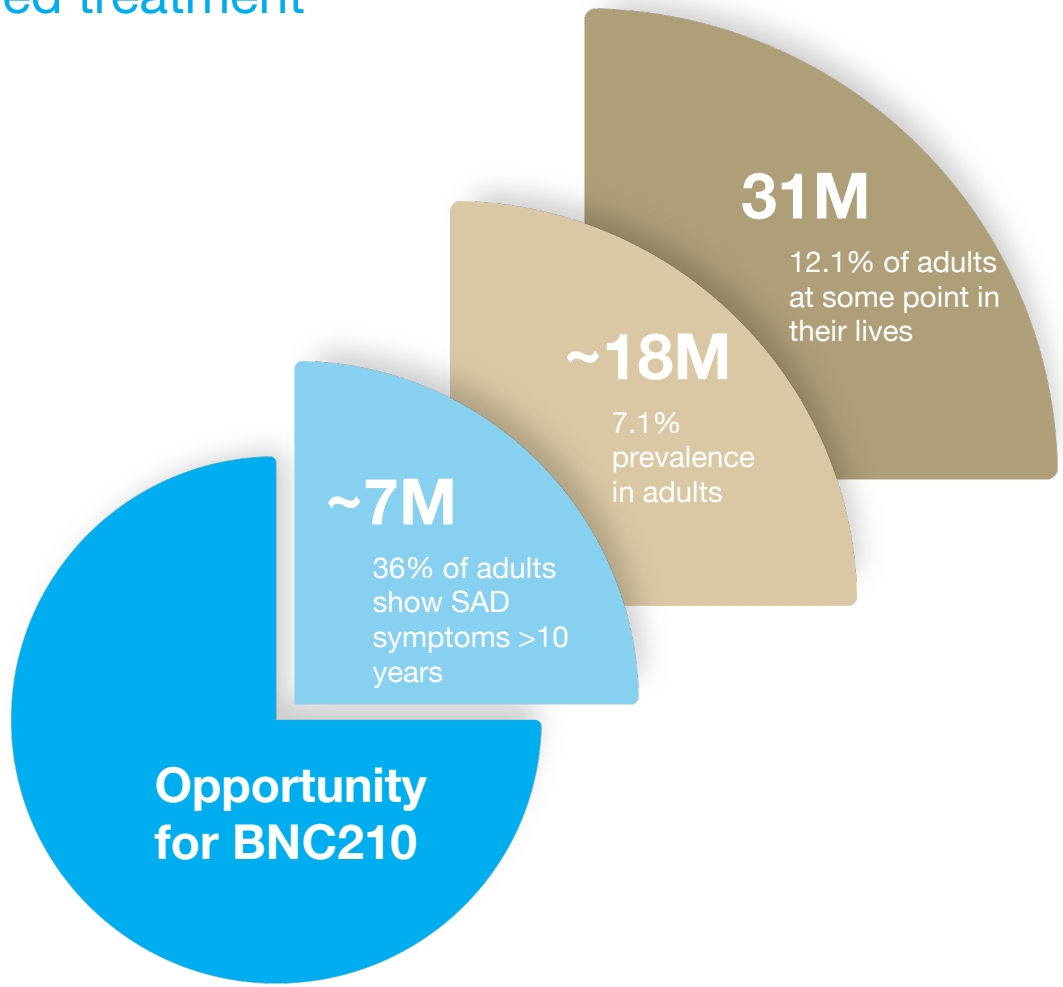
Targeting a Large Segment of the Anxiety Market

No FDA-approved fast-acting medications for as-needed treatment



BNC210 could achieve $1.7B in US annual peak sales in SAD*



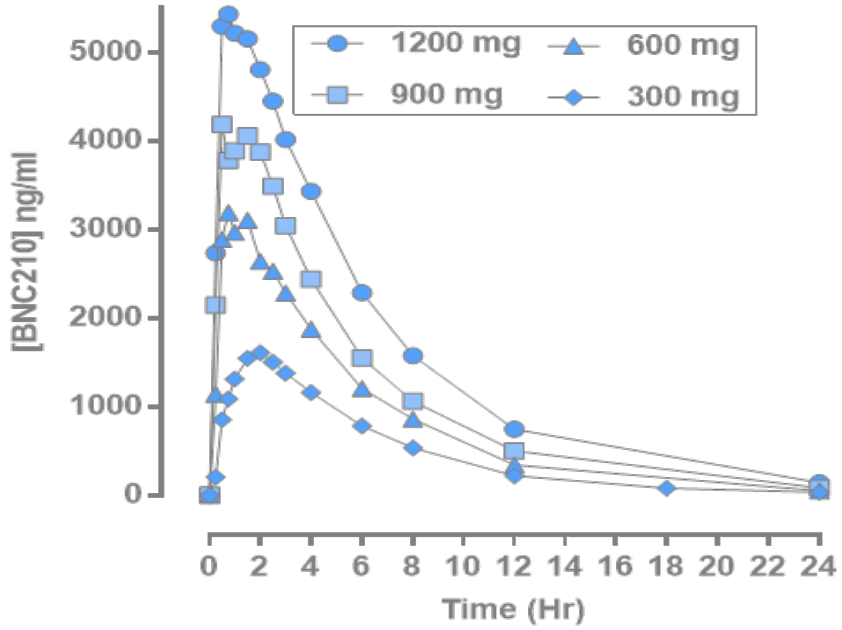
Sources:
US Census Bureau. https://www.census.gov/library/stories/2021/08/united-states-adult-population-grew-faster-than-nations-total-population-from-2010-to-2020.html
NIMH. "Social Anxiety Disorder" data from 2017 National Comorbidity Survey (NCS). https://www.nimh.nih.gov/health/statistics/social-anxiety-disorder.shtml
Anxiety and Depression Association of America (ADAA). "Social Anxiety Disorder - Understand the Facts" https://adaa.org/understanding-anxiety/social-anxiety-disorder
**Based on 3rd party (Bluestar BioAdvisors) independent market analysis*

Bionomics

BNC210's Unique Profile is Well-Positioned for Acute Treatment of SAD

Rapid Onset of Action with BNC210 Formulation

45 – 105 min to reach maximum blood concentrations across dose range following oral administration of tablet



Well-suited for acute dosing – rapidly absorbed to high concentrations with coverage extending for several hours

Proof of Concept in GAD and Panic Attack Model

- SAD shares many characteristics with General Anxiety Disorder (GAD), including a common neural basis in amygdala hyperactivation expressed as excessive or unrealistic anxiety
- BNC210 clinically demonstrated its potential for reducing anxiety in acute treatment of GAD patients and following panic induction in healthy volunteers
- Observed acute anxiolytic efficacy of BNC210 similar to lorazepam without sedating properties or addiction liability
- Our studies also provide clear demonstration of efficacy using biomarker data including EEG and fMRI

EEG = Electroencephalogram
fMRI = Functional magnetic resonance imaging

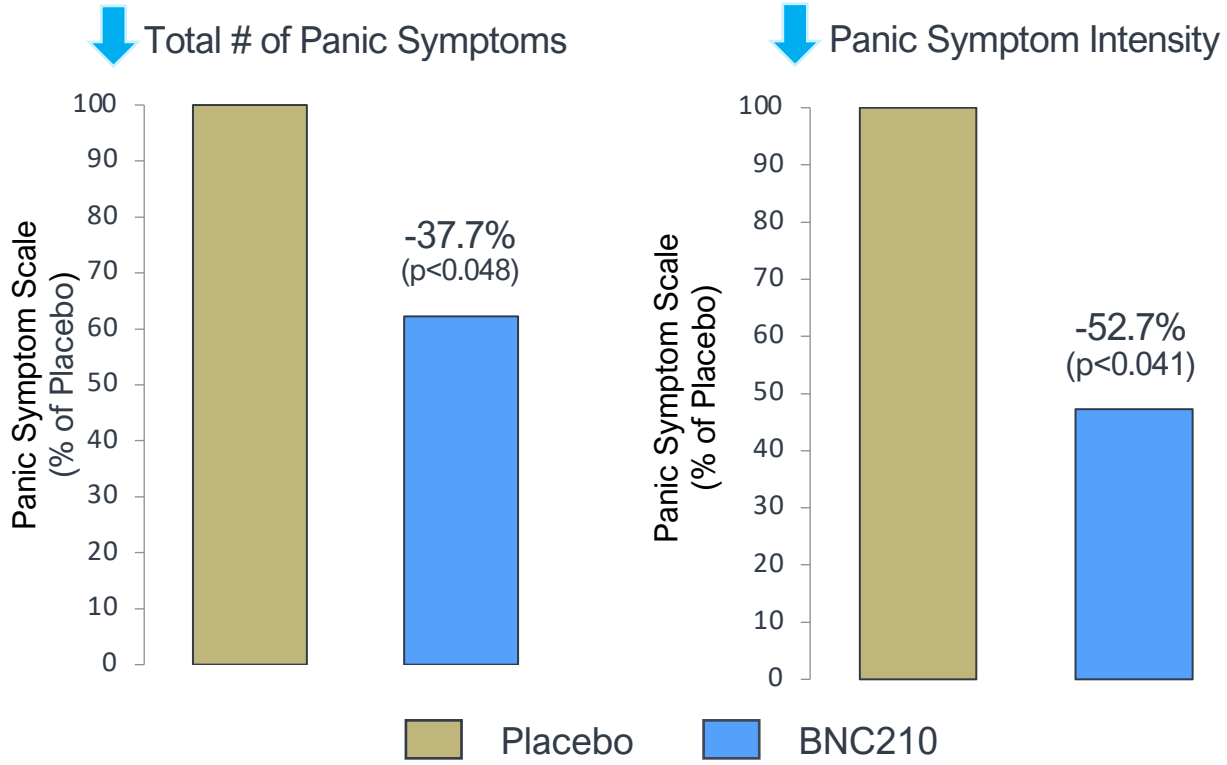
Bionomics

BNC210 Reduces Anxiety and Panic Symptoms in Humans

Phase 1b placebo-controlled study evaluating BNC210 in acute anxiety in 15 healthy volunteers who experienced a CCK-4-induced panic attack

- Subjects assessed after a single dose of BNC210 as they would be in an acute SAD trial setting
- Proof of Principle in demonstrating anxiolytic activity

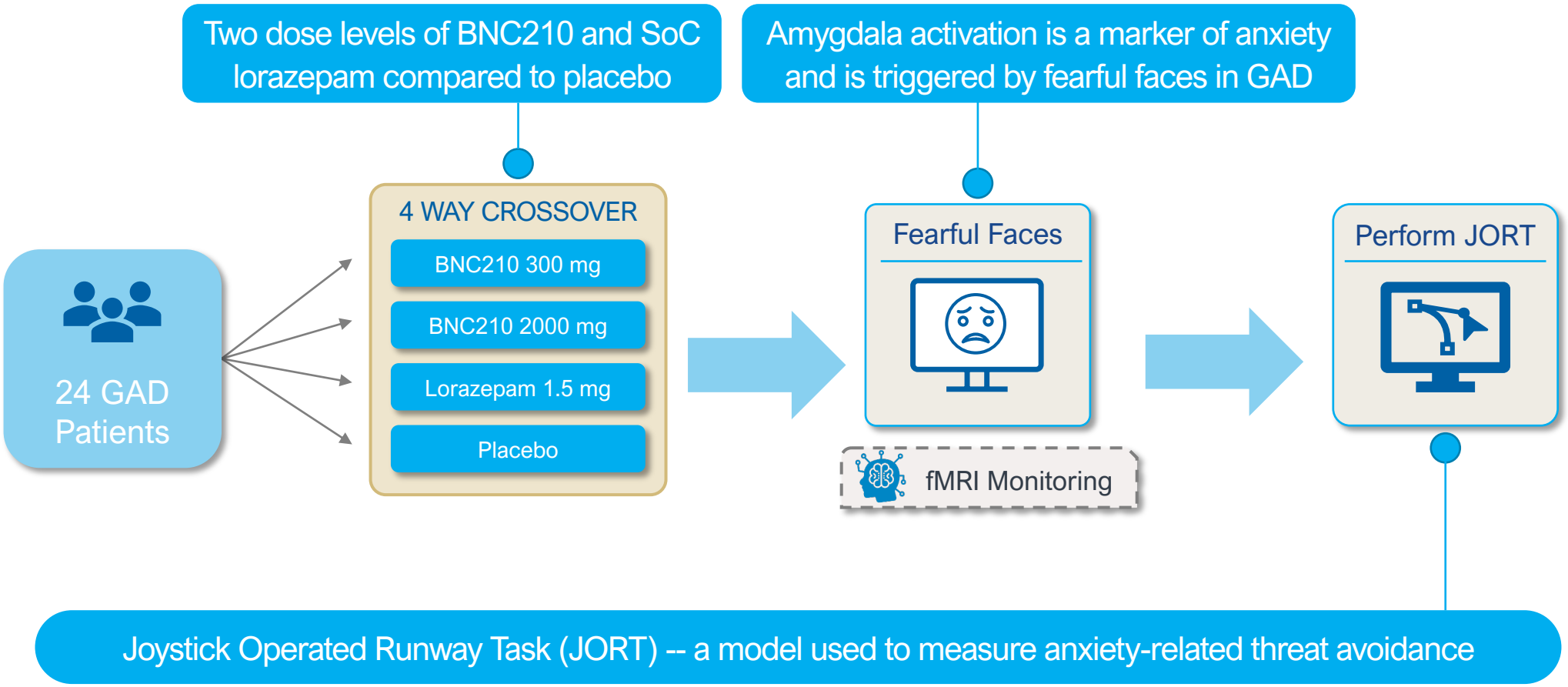
BNC210 demonstrated reduction in panic symptoms as measured with the Panic Symptom Scale



CCK-4 = Cholecystokinin Tetrapeptide (a peptide that induces anxiety and panic symptoms)

Bionomics

Phase 2 Study of BNC210 Assessing Acute Anxiolytic Activity in GAD



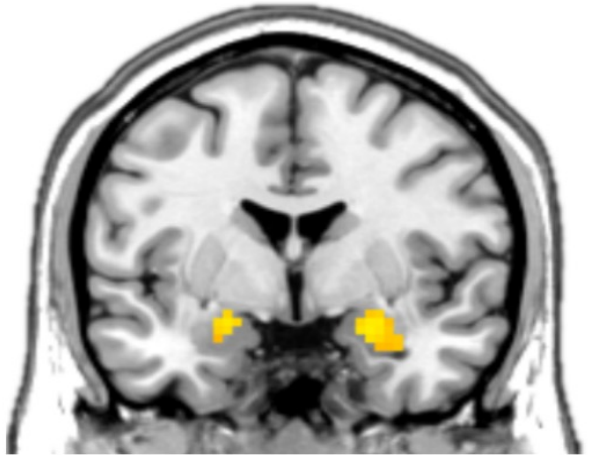
Wise T. et al., Biological Psychiatry 2020 (https://doi.org/10.1016/j.biopsych.2019.12.013); Perkins A. et al., Translational Psychiatry 2021 (https://doi.org/10.1038/s41398-020-01141-5)
GAD = Generalized Anxiety Disorder
SoC = Standard of Care
JORT = Joystick Operated Runway Task

Bionomics

BNC210 Reduces Acute Anxiety-Related Biomarkers in GAD Patients

Amygdala activation is an imaging surrogate for anxiety

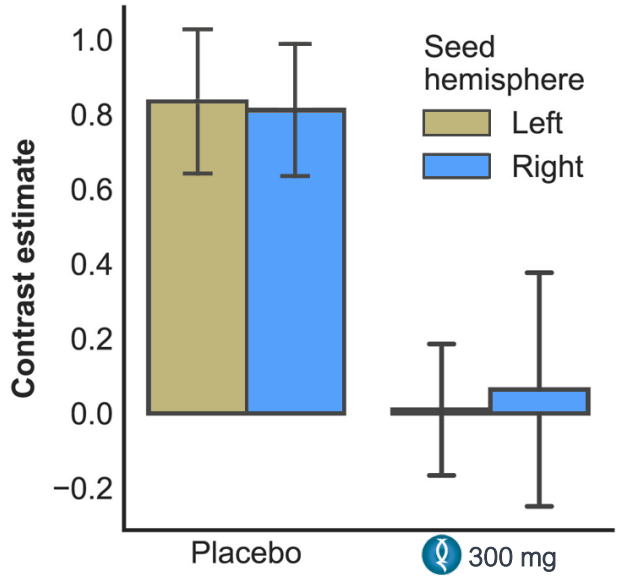
BNC210 reduced activation of L & R amygdala caused by viewing fearful faces (L: p=0.011; R: p=0.006)



300 mg

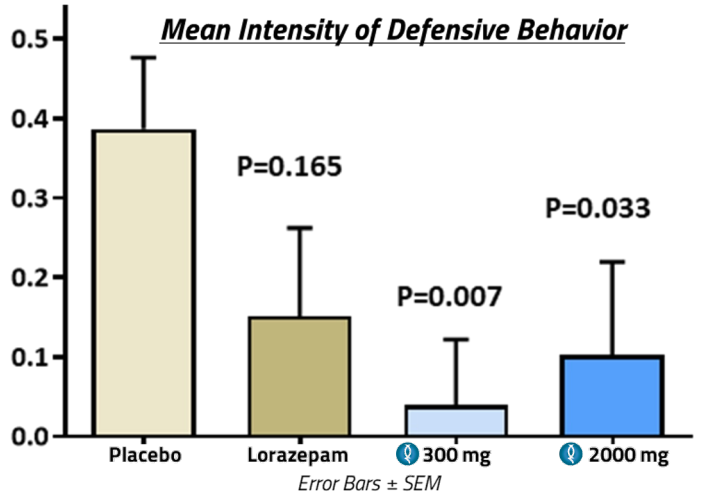
Connectivity between the amygdala and Anterior Cingulate Cortex (ACC) is very strong in high anxiety

BNC210 reduced connectivity between amygdala and ACC while viewing fearful faces (p=0.012)



BNC210 300 mg also significantly reduced self-reported state anxiety (p=0.003).

BNC210 300 mg and 2000 mg reduced threat avoidance behavior of anxious subjects in the JORT behavioral task



= BNC210

Wise T. et al., Biological Psychiatry 2020 (https://doi.org/10.1016/j.biopsych.2019.12.013); Perkins A. et al., Translational Psychiatry 2021 (https://doi.org/10.1038/s41398-020-01141-5)
JORT = Joystick Operated Runway Task

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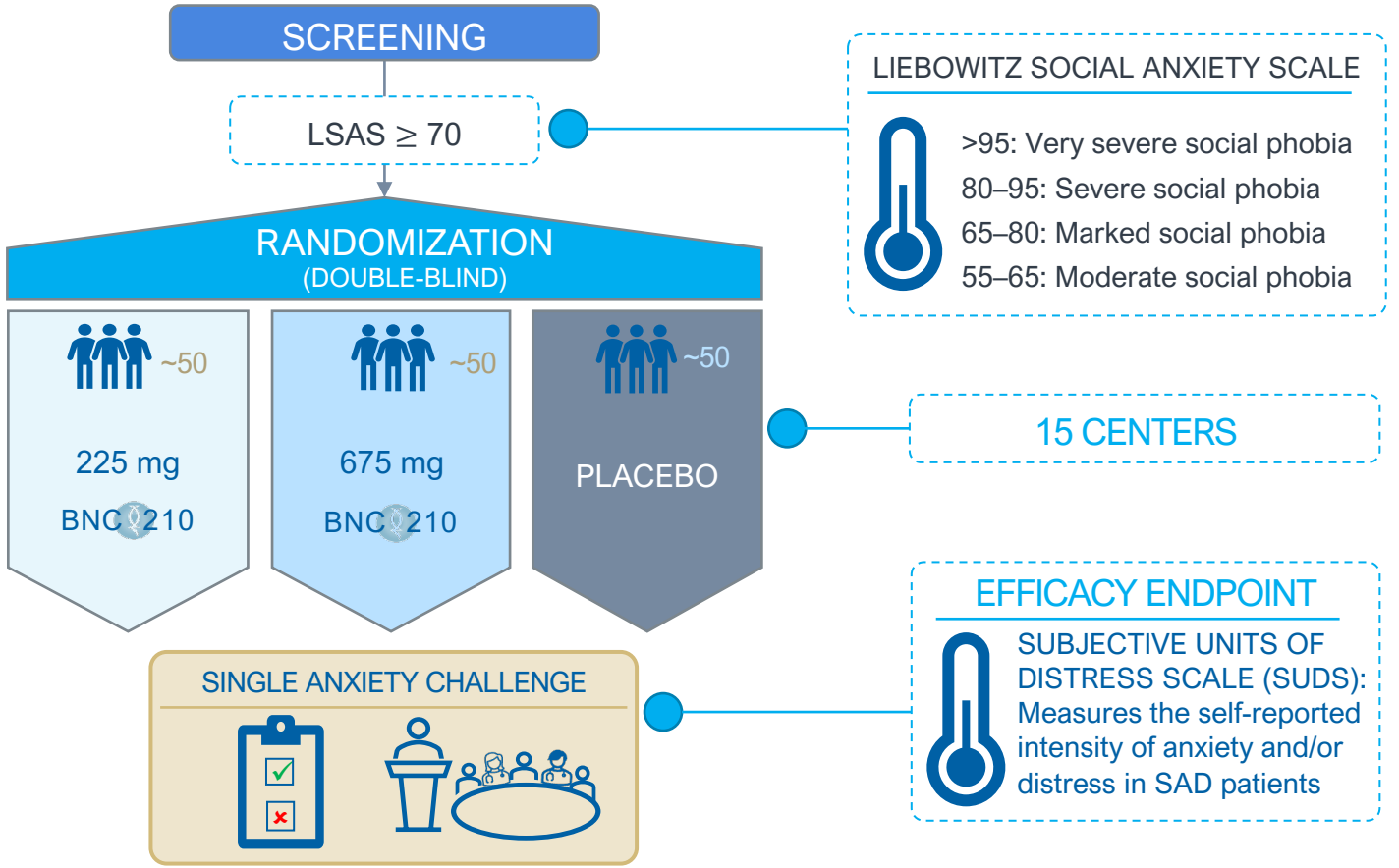
PREVAIL Study

BNC210 Phase 2 Social Anxiety Disorder Trial

Acute Social Anxiety Disorder Study Highlights

- Leveraging FDA-endorsed registration trial endpoint for SAD
- Cost-effective trial with an efficacy endpoint conducive to rapid data generation
- FDA Fast Track designation
- Phase 2 trial underway and will read out topline data by end of 2022

Phase 2 Study Design



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BNC210 Market Opportunity Assessment and Revenue Projections Conducted by Bluestar BioAdvisors Integrating Primary Physician and Payer Research

Primary & Secondary Research Summary

Interview Targets	Number of US Interviews
SAD KOLs	2
PTSD KOLs	2
Community Psychiatrists	9
Payers	3
TOTAL	16

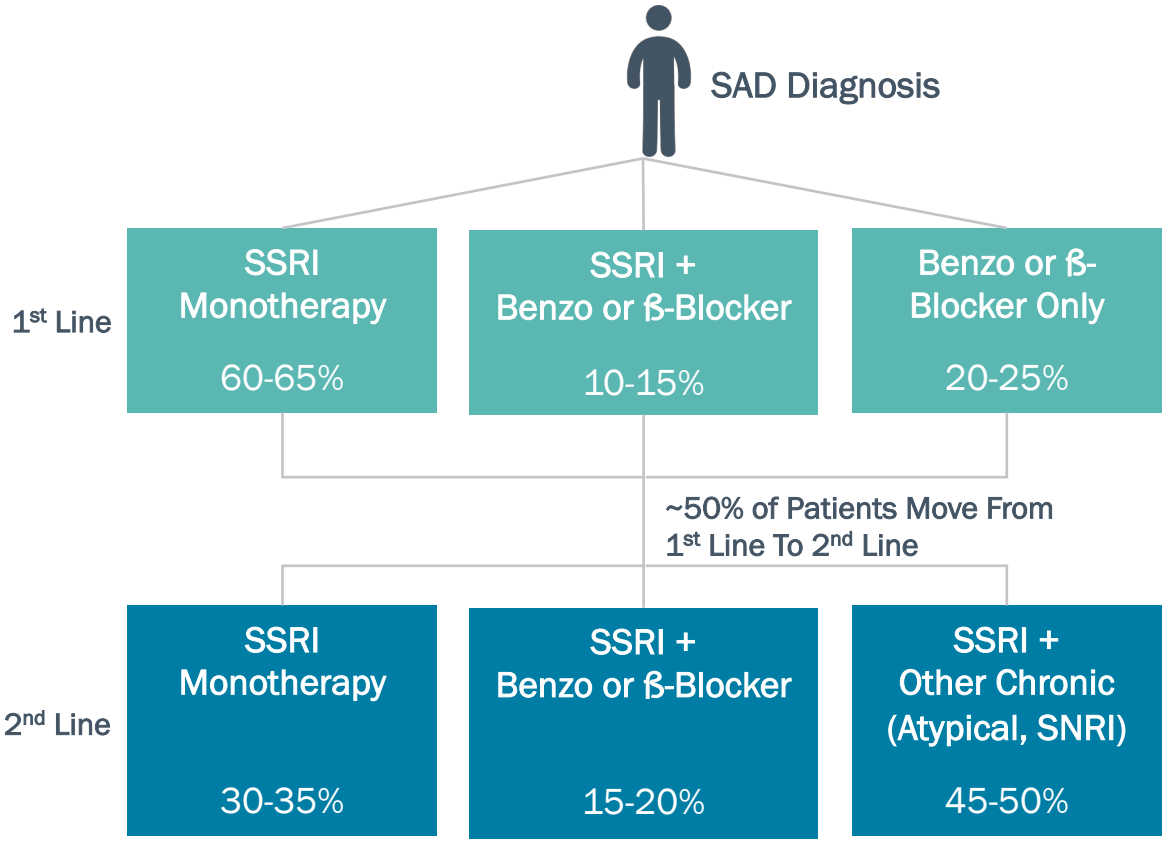
- Physician interviews included a mix of key opinion leaders for each indication and community psychiatrists involved in the management of both diseases
- Payer interviews consisted of national payers with knowledge of how new agents in these conditions would be received
- Interviews involved in-depth, 60-minute phone-based discussions conducted by the consulting team itself
- Research materials (discussion guides and TPP) were generated by Bluestar and reviewed and approved by Bionomics prior to the initiation of the primary research

Secondary Sources

- Bionomics documents (e.g., product details, clinical development plans, etc.)
- Peer-reviewed professional journals
- Patient/disease organizations
- Clinical trial databases (e.g., PharmaProjects, Adis, TrialTrove, clinicaltrials.gov)
- Market reports
- Conference proceedings and abstracts
- Medical and trade literature

SSRIs are the backbone of SAD chronic drug treatment, with benzos and to a lesser degree beta blockers as relatively common PRN options

Social Anxiety Disorder Drug Treatment Paradigm



COMMENTARY

- **SSRIs are the backbone of pharmacotherapy for SAD patients across different lines of treatment**
  - There is not necessarily any particular SSRI preferred; treatment typically depends on historical response to treatment. Sertraline and paroxetine are used frequently
  - SSRIs, however, only provide modest efficacy, and they present a range of problematic side-effects, such as weight gain and sexual issues
- **Benzodiazepines and beta blockers can be used as standalone PRN treatments in very mild patients, or to augment SSRIs used PRN or semi-chronically in patients who need add-on therapy**
  - There are widely mixed views on benzos, with some psychiatrists refusing to use the class at all, and others believing the safety risks have been overblown. In general, utilization of benzos appears to have declined over the past 5 years as physicians have more restrictions and reporting requirements around prescribing
  - Beta-blockers are also a PRN option for more work/performance-related needs as they act on the physical symptoms of performance anxiety, although the frequency of use is low

Abbreviations: SSRI – selective serotonin reuptake inhibitor, SNRI: serotonin norepinephrine reuptake inhibitor

Source: UpToDate; Bluestar Primary Physician Interviews (n=13, March 2022)

Psychiatrists interviewed are highly enthusiastic about the blinded BNC210 product profile, as it is an innovative therapy offering benefits on safety and efficacy

BNC210 Social Anxiety Disorder TPP Reaction

- Physicians are desperate for innovation in anxiety and are highly enthusiastic about having a novel mechanism of action. They are less focused on the specifics of the 210 MOA and rather focus on the fact that it is not another "me too" SSRI or benzo
- The clean safety and side-effect profile of BNC210 is a strong differentiator from all currently approved SAD drug classes
- The PRN efficacy of BNC210 being similar to benzos is encouraging to physicians, as benzos are viewed as highly effective in social anxiety
- Rapid onset of action is viewed as a strong positive as benzos are the only products that work on traditional social anxiety (as opposed to performance-specific issues). SSRIs take 6 or more weeks to become effective
- One KOL commented that BNC210 has solid proof of concept data from imaging studies, which in his opinion demonstrate strong anxiolytic activity

"This product is interesting because it has a unique MOA, and it is not another 'me too' SSRI or benzo. No substance use is a big plus."

– Psychiatrist, TX

"This seems positive. It's everything I told you that I wanted."

– Psychiatrist, MI

"This is a totally different MOA. I think we have 12 SSRIs already. Product X seems like a slam dunk with no issues related to withdrawal or sedation."

– Psychiatrist, MD

"Finally we could have something new to offer to our patients! The last thing we had was buspar in the 80's. No one is touching anxiety, and it's huge."

– Psychiatrist, TN

Bluestar BioAdvisors

Source: Bluestar Primary Physician Interviews (n=13, March 2022)

BNC210 usage is expected to begin as PRN, transitioning to chronic daily dosing over time, which is how physicians strongly prefer to manage the condition

BNC210 Social Anxiety Disorder Anticipated Utilization

Initial Adoption

Upon initial approval based on a public speaking challenge trial design, psychiatrists would use 210 **in place of benzos and beta blockers** due to its strong safety and efficacy. Payers are **not expected to force a step** edit on 210, as that would be risky with benzos and only relevant for the smaller subset with performance anxiety for beta blockers

Long-Term Expansion

Because social anxiety disorder is a chronic disease that psychiatrists believe must be treated with chronic pharmacotherapy and psychotherapy, there is **a strong preference to transition to using BNC210 on a daily basis in the longer-term, likely in conjunction with SSRIs** due to underlying co-morbidities such as depression

"In a perfect world where cost was not an issue, I would like you use this right out of the gate. It is strongly needed. It's not a 'me too' product."

– Psychiatrist, TN

"I would prefer more of a chronic trial design, but I wouldn't be too concerned about patients increasing from PRN to daily use. Initially I think patients would take it 2 or 3 times a week, but I could see them increasing use over time as long as it's safe."

– Psychiatrist, PA

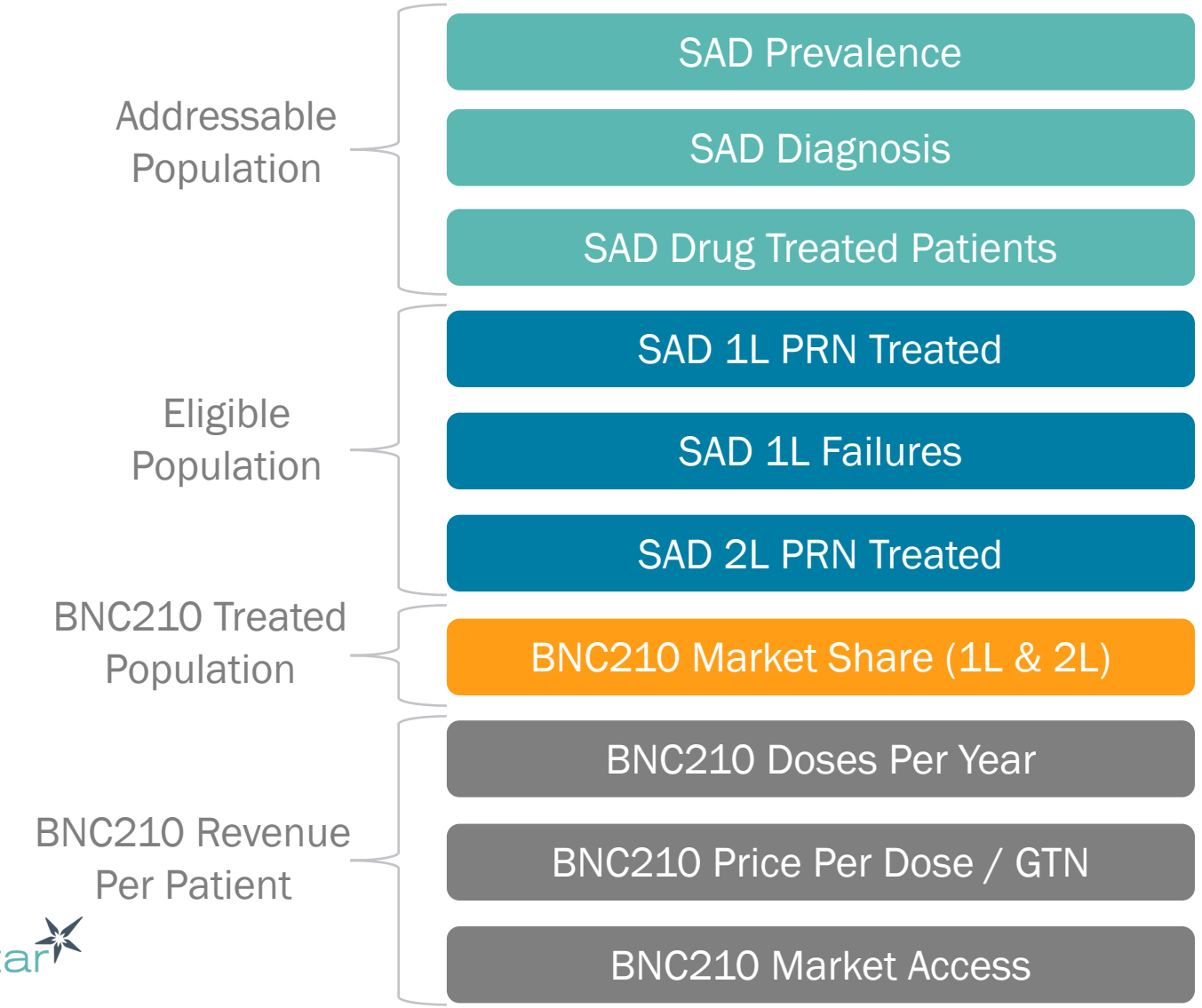
"I would probably use this in place of a benzo at the onset. I wouldn't see a reason to limit use. You have to remember the SSRIs provide benefit on co-morbidities for a lot of these patients."

– Psychiatrist, MD

Source: Bluestar Primary Physician Interviews (n=13, March 2022)

A comprehensive revenue forecast structure has been created to estimate the BNC210 US revenue opportunity in social anxiety disorder

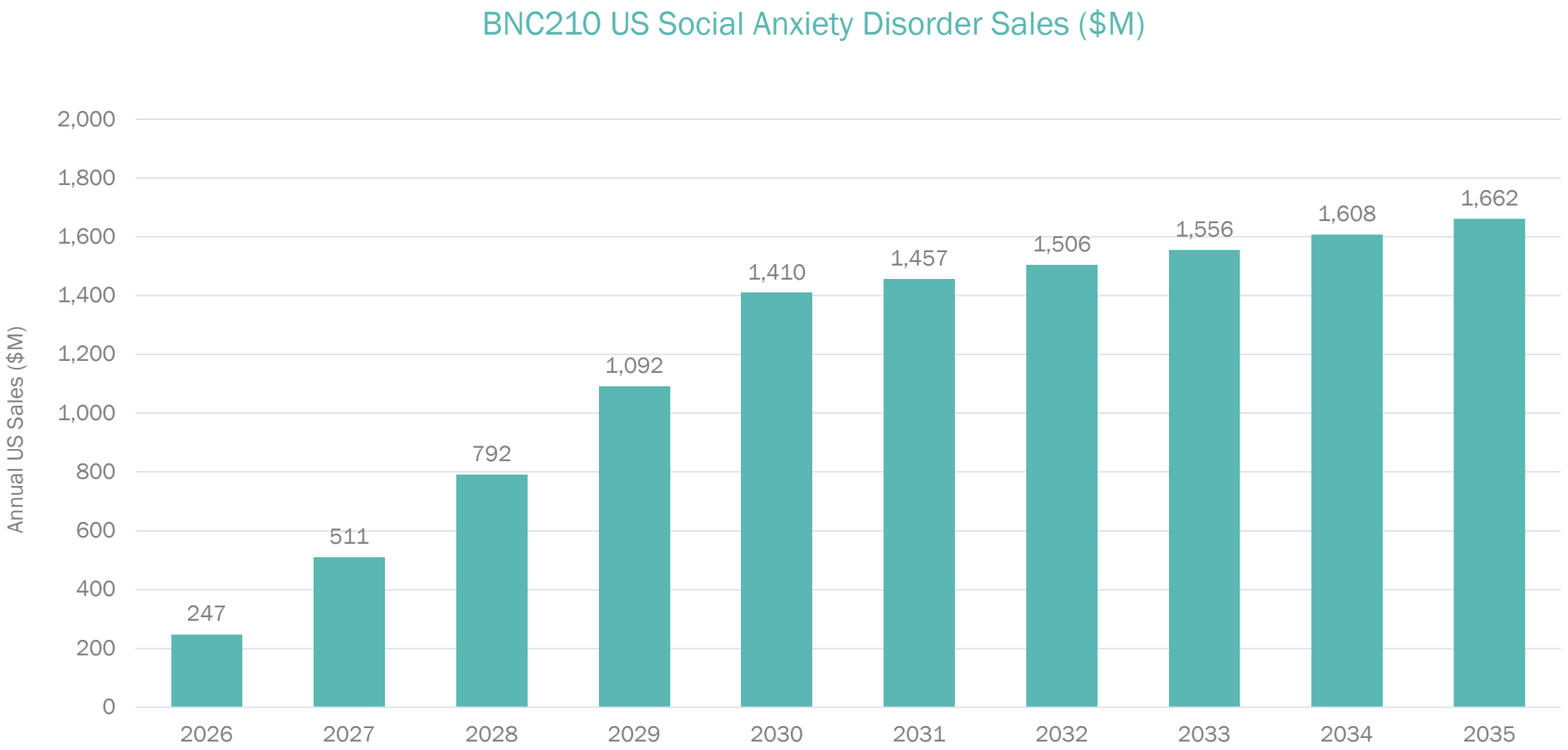
BNC210 Social Anxiety Disorder Forecast Structure



- The addressable population is derived using secondary epidemiology literature
- BNC210 eligibility assumptions come from primary physician research and publications on response rate to 1L therapy
- Peak market share is estimated using analog products
- Per patient revenue assumptions leverage internal Bionomics discussions, psychiatry price analogs, and industry proxies

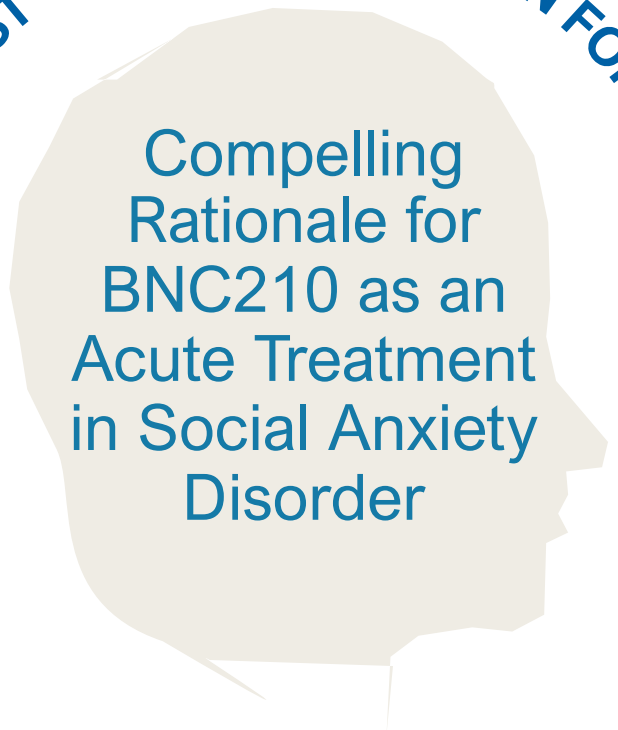
Bluestar BioAdvisors

BNC210 could achieve $1.7B in peak-year sales in social anxiety disorder



Compelling Rationale for BNC210 in Social and General Anxiety Disorders

FDA FAST TRACK DESIGNATION FOR SAD



ANTI-PANIC	Single doses reduce panic symptoms & panic intensity in healthy volunteers experiencing a CCK-4 induced panic attack
ANTI-ANXIETY	Single doses reduce amygdala activation in GAD patients performing the Emotional Faces task during fMRI
REDUCES PERCEPTION OF THREAT	Single doses reduce threat avoidance behavior in GAD patients performing a behavioral task
FAST-ACTING	Pharmacokinetics of reformulated BNC210 tablet are ideal for acute dosing
UNMET NEED	No acute treatments are approved for SAD; represents potential for rapid path to market

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Appendix

References for Comparative Analyses of SAD Therapeutics

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