Official Title: Phase II Trial of Tesamorelin for Cognition in Aging HIV-Infected Persons

NCT02572323

05/19/2020

Study Overview

Title	**Full Study Title** Phase II Trial of Tesamorelin for Cognition in Aging HIV-Infected Persons
PI	Ron Ellis
Coordinator	Anjelica Pascual Cosino
Project Start	02/2017
Project End	05/2021
Funding Source/ Award Number	NIH/HIA, Award # R01AG048650
NCT number	NCT02572323
Study Design	Randomized Clinical Trial with randomization to the immediate or deferred treatment
Study Code	TESB, TESI, TESD
Consent	• Phase II Trial of Tesamorelin for Cognition in Aging HIV-Infected Persons o Consent to Be Screened for a Research Study o Consent to Act as a Research Subject • Consent to Act as a Research Subject: Phase II Trial of Tesamorelin for Cognition in Aging HIV-Infected Persons: Effects of Tesamorelin on CSF Biomarkers Sub-study • Consent to Act as a Research Subject: Phase II Trial of Tesamorelin for Cognition in Aging HIV-Infected Persons: Effects of Tesamorelin on Tau Protein Burden using Tau-PET Scan
Participants	100 participants seen at UCSD (n=50) and USC (n=50)
Spanish Speakers	Yes
Inclusion/Exclusion	Inclusion: HIV+, 40 years and older, NC Impaired Exclusion: unwilling to inject TESA, neurocognitive confounding conditions, HCV positive with plans to start treatment
Visits	TESB: SC1, PE1, 000 TESI: 002, 004, 012, 024, 048 TESD: 024, 026, 028, 036, 048
Visit Interval	TESB: SC1 and PE1 visits should be within 6 weeks of the 000-visit unless repeat W/C measurements are done at the PE1 visit which extends the timeline an additional 6 weeks TESI: Week 2, 4, 12, 24, 48 TESD: Week 24, 26, 28, 36, 48
Assessments	See Table 1 below.
Compensation	Up to $580 in total. If x-rays required to determine MRI eligibility: $20 CSF sub-study: $200-300 depending on number of LPs PET sub-study: $100
Scrip Source	TESB, TESI, TESD
Visit Length	See Table 1 below
Scheduling	Dependent on Matthew's schedule
Examiners	NP– SC1: Matthew; 024 and 048: Core testers NM, ITW, and Drug Dispensing: Anjelica
UTOX+ Policy	Standard procedures – OK for the pt to continue with NP testing if positive for meth unless the participant is behaviorally intoxicated. Reschedule if behaviorally intoxicated or if positive for other drugs that cannot be explained by prescription med; marijuana OK. See coordinator for further questions.
Co-enrollment	No co-enrollment in intervention studies

1. TIMELINE

4 years; 12-15 participants per year

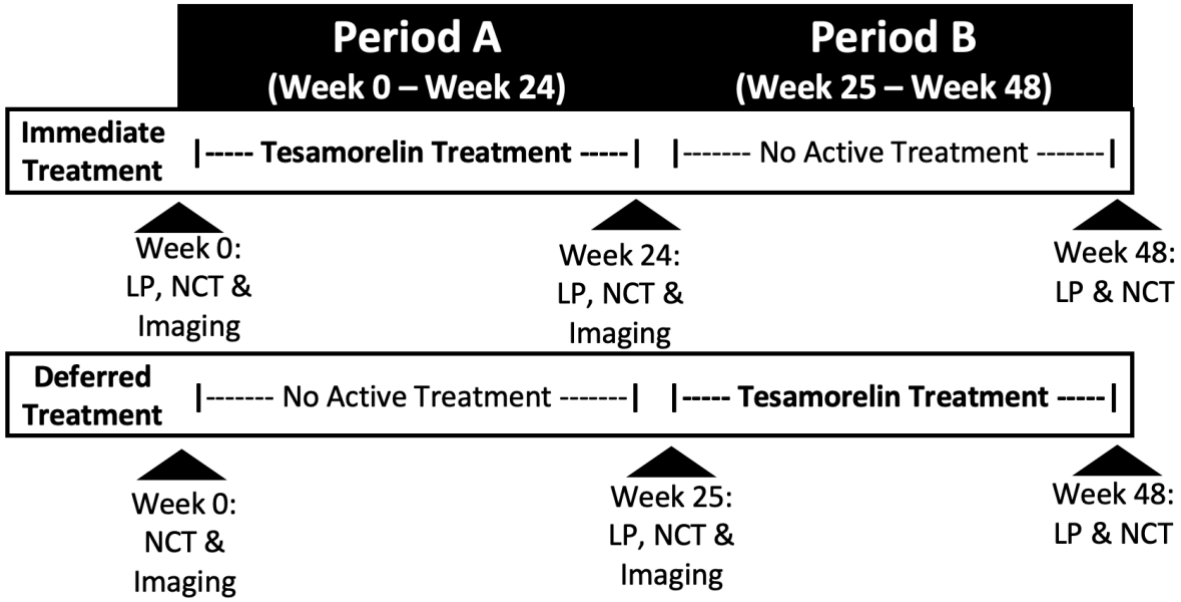
Duration of study	5 years
Date start enrolling	02/2017
Date stop enrolling	05/2021
Milestones (# pts/yr, etc)	2017- 23 participants enrolled 2018- 18 participants enrolled 2019- 16 participants enrolled 2020- TBD 2021- TBD

2. BRIEF STUDY DESCRIPTION

Tesamorelin is an injectable medication already approved by the U.S. FDA to treat abdominal fat accumulation in HIV. Abdominal fat accumulation is linked to memory and thinking difficulties, and previous studies have suggested that tesamorelin also may be beneficial for memory and thinking, but this has not been tested in HIV.

This is a randomized trial in which participants will have a 60% chance of initially receiving tesamorelin (the Immediate group) and a 40% chance of initially receiving no treatment (the Deferred group) for 6 months. Subsequently, those who initially received no treatment will receive tesamorelin and those who initially received tesamorelin will receive no treatment for 6 months.

This study includes text-messaging, memory and thinking assessments, blood draws and magnetic resonance imaging (MRI) scans of the head and abdomen



3. PARTICIPANTS

HIV+ adults 40+ years old (N=100):
- UCSD: 50
- USC: 50

Inclusion Criteria:

1. HIV-1 infection documented by any FDA licensed clinical test including HIV enzyme/antigen test or chemiluminescence immunoassay (E/CIA) or plasma HIV-1 RNA viral load.
2. Antiretroviral therapy: Patient currently receiving a cART regimen ≥12 weeks with no interruptions longer than 7 days and HIV <500 copies/ml during that time.
3. Men or women age 40 and older
4. Abdominal minimal waist circumference ≥ 95cm for men and ≥94cm for women or minimal waist to hip ratio of ≥ 0.88 for women (each based on an average of three separate measurements)
5. Screening neuropsychological Global Deficit Score of ≥ 0.35
6. The following laboratory values obtained within 90 days prior to entry by any CLIA certified laboratory.
    - Absolute neutrophil count (ANC) ≥750/mm^3
    - Hemoglobin ≥8.0 g/dL
    - Platelet count ≥50,000/mm^3
    - HgbA1C ≤8.0% and has no plans to start additional antidiabetic medication(s)
    - Calculated creatinine clearance of ≥20 mL/min as estimated by the Cockroft-Gault formula
    - Aspartate aminotransferase (AST) (SGOT) and alanine aminotransferase (ALT) (SGPT) ≤5 X ULN; alkaline phosphatase <3 x UNL
    - Total bilirubin ≤2.5 x ULN (if the participant is receiving atazanavir, a total bilirubin of ≤5 x ULN is acceptable).
7. For females of reproductive potential, negative serum or urine pregnancy test within 30 days prior to entry by any test performed by a CLIA certified laboratory or is using a point of care (POC)/ CLIA-waived test.
8. Contraception requirements: For females of reproductive potential, she or male partner is willing to use a contraceptive during sexual intercourse.
9. Ability and willingness of participant or legal guardian/representative to provide informed consent

Exclusion Criteria:

1. Clinical contraindications
    - History of neurocognitive confounding conditions that explain current impairment including but not limited to stroke, head injury, psychotic disorder, active substance use disorder by DSM, or opportunistic CNS infection
    - Hepatitis C virus infection defined as HCV antibody positive requiring treatment and plans for treatment during study therapy
    - Active or relapsing autoimmune disorder that may require immunotherapy during this treatment trial
    - Active malignancy other than basal or squamous skin cancer.
2. Breastfeeding or pregnancy
3. Excluded medications used within the last 90 days: active or planned use of rhGH, anti-TNFa therapy or other biologic (tocilizumab, Xelijanz, etc.), systemic corticosteroids, need for prescription dosing of NSAIDs administered regularly one or more times daily, or investigational medication
4. Known allergy/sensitivity or any hypersensitivity to tesamorelin
5. Active drug or alcohol use or dependence that, in the opinion of the site investigator, would interfere with adherence to study requirements
6. Acute or serious illness requiring systemic treatment and/or hospitalization within 60 days prior to entry
7. Use of tesamorelin in the last 6 months

Exclude possible participants who are co-enrolled in other studies that use overlapping tests, only if those studies are expected to re-administer tests in the Tesamorelin battery between the times of the Tesamorelin Study baselines and final follow-up evaluations

Co-enrollment:
Participants can be co-enrolled, but can't have an intervention or NP testing while in this study.

Enrollment Procedure:
For participants already enrolled at the HNRP, PAR team (Recruitment) will check age of participants and that they are not currently participating in other intervention studies at the HNRP. PAR will call participants who meet these criteria. By telephone, they will explain the study and ask screening questions (HNRC screening + language of testing form + Tesamorelin Eligibility Checklist – Section 1). Information on pre-screening visits of participants who qualify based on their responses will be sent to Anjelica for approval. Once approved, participants will be scheduled by PAR (Scheduling).

Recruitment will also be done in the community.

4. HNRP CORES

DMIS	Assistance with creating forms, data storage and management
Neurobehavioral	NP testing (including NIH Toolbox Cognition Battery), linking
PAR	Recruitment, scheduling, screening, consenting, breathalyzer
Neuromedical	Utox, blood draw, neuromed interview, physical exam, iTAB, injection training, drug dispensing, linking
Statistics	Data analysis

5. SCHEDULE OF ASSESSMENTS

Table 1. Assessments by visit, length of visit and total compensation

Bolded assessments in Period A are completed by the Immediate group only and bolded assessments in Period B are completed by the Deferred group only.

			Period A					Period B			
Visit Description	Screening	Pre-Entry	Entry	Week 2	Week 4	Week 12	Week 24	Week 26	Week 28	Week 36	Week 48
Length of Visit (hours)	2	6*	5*	1	2	2	9*	1	2	2	9*
Type of Visit	In-person#	In-person#	In-person#	Phone	In-person#	In-person#	In-person#	Phone	In-person#	In-person#	In-person#
Randomization			X								
Eligibility Checklist	X##	X##									
Drug Dispensing			**X****		**X****	**X##**	X**^		**X****	**X##**	
Lab Assessments											
Substance Use											
Urine Drug Screen	X	X					X				X
Breathalyzer	X	X					X				X
Pregnancy Test (women)	X	X+					X^				
Fingerstick											
HIV/HCV Ab rapid test	X										
Blood draw (clinical)											
CBC		X			**X**	**X$**	X		**X**	**X$**	X
Chemistry/LFTs		X			**X**	**X$**	X		**X**	**X$**	X
HgbA1C		X					X				X
CD4, HIV RNA		X					X				X
Blood draw (research)											

IGF-1 levels		X			**X**		X		**X**		X
Neuromedical											
Interview	Brief##	Brief##	Full##	**Brief**	**Brief##**	**Brief##**	Full##	**Brief**	**Brief##**	**Brief##**	Full##
Exam	WC##	WC++	Full		**Brief**	**Brief##**	Full		**Brief##**	**Brief##**	Full
Tes injection training		X***					X^				
Lumbar Puncture			**X**				X				X
Neuropsychological testing	Brief##	Full****					Full				Full
iTAB			Training##	**X**	**X##**	**X##**	Training^##	**X**	**X##**	**X##**	**X^##**
Imaging											
MRI Abdominal and Trunk Fat			X				X				
MRI Brain			X				X				
X-rays	X+++										
PET Scan			**X**				X^				

Tes: Tesamorelin, iTAB: Individualized Texting for Adherence Building, WC: Waist Circumference

*Pre-Entry, Entry and Week 24 visit will be split over multiple days; Entry and Week 24 visit will take place at two separate locations

** If only 4 weeks of study drug is dispensed at Entry or Week 24, then 8 weeks of study drug will be dispensed at the week 4 visit or Week 28 visit. If 12 weeks of study drug is dispensed at Entry or Week 24, then there will be no dispensing at the week 4 visit. Most participants will receive only 4 weeks of study drug at the Entry visit. Participants who have a difficult time returning for drug at the Week 4 visit will have 12 weeks of study drug dispensed to them at Entry.

***Tesamorelin injection training will occur after the participant completes all other screening assessments and is deemed eligible

****Includes Composite International Diagnostic Interview (CIDI) assessment of alcohol, drug use and mental disorders

^Deferred group only

+ Repeat pregnancy test at the Pre-Entry visit (COVID19 contingency plan)

++ Repeat waist circumference measurements at the Pre-Entry visit (COVID19 contingency plan)

+++Only if needed to determine eligibility for MRI and will take place at a separate location

Modified visit (COVID19 contingency plan)

Assessment can be done remotely. Once enrolled, the assessment can continue to be done remotely unless the participant reports something that the clinician determines needs to be assessed in-person. NM exam will be modified as not all aspects of the SPE1 form can be completed remotely. The clinician will coordinate with pharmacy regarding study drug/supply dispensing. (COVID19 contingency plan)

$ Assessment can be deferred unless the participant reports something that the clinician determines needs to be assessed in-person (COVID19 contingency plan)

6. SCHEDULING DETAILS

NM assessments can be done in any of the clinician rooms. NP assessments can be done in any of the NP testing rooms. The clinical coordinator work with PAR to coordinate the timing of 000 and 024 visits for participants who are MRI and/or PET scan eligible. PAR will be responsible for scheduling participants for their MRI scans at the Keck MRI imaging center. The clinical coordinator and PAR will work together to schedule participants for their PET scans at the California Proton Cancer Therapy Center (CPC). CPC point of contact is Chris Davis (chris.davis@californiaprotons.com) and Debbie Madueno (debbie.madueno@californiaprotons.com).

7. COMPENSATION DETAILS

The total compensation for each visit is in Table 2 below.

Table 2. Scrip Utility Breakdown

Study	Visit	Compensation Amount		Assessment
		Visit Total	Assessment	
TESB	SC1	Up to $65	$15	Waist measurement and fingerstick
			$15	Brief medical interview
			$15	Brief NP assessment and urine specimen
			$20	X-rays (only if needed to determine MRI eligibility)
	PE1 Up to $100		$20	Blood draw
			$15	Brief medical interview
			$20	Injection training
			$45	Full NP assessment and urine specimen
	000	Up to $105	$20	NM assessment
			$10	iTAB training (Immediate group only)
			$75	Abdominal and brain MRI
TESI	002	Up to $15	$15	Brief medical assessment
	004	Up to $35	$20	Blood draw
			$15	Brief medical assessment
	012	Up to $35	$20	Blood draw
			$15	Brief medical interview
TESI/ TESD	024	Up to $170	$20	NM assessment
			$20	Blood draw
			$10	iTAB training (Deferred group only)
			$45	Full NP assessment
			$75	Abdominal and brain MRI
TESD	026	Up to $15	$15	Brief medical assessment
	028	Up to $35	$20	Blood draw

			$15	Brief medical assessment
	036	Up to $35	$20	Blood draw
			$15	Brief medical assessment
TESI/ TESD	048	Up to $85	$20	NM assessment
			$20	Blood draw
			$45	Full NP assessment
CSF sub-study	000, 024, 048	Up to $300	$100	Lumbar puncture (LP) Immediate group receives a LP at 000, 024 and 048 Deferred group receives a LP at 024 and 048
PET scan sub-study	000 or 024	Up to $100	$100	PET scan Immediate group receives a PET at 000 Deferred group receives a PET at 024

- Participants will receive $10 compensation for incomplete NM or NP testing (including urine sample)
- If a participant begins but does not complete a blood draw or MRI for any reason, the participant will receive full compensation for the procedure
- For phone visits (Weeks 2 or 26), the participant will be given the option to have the compensation mailed (only applies to scrip payment) or to pick up the payment at their convenience.
- If a participant is asked to return for a separate visit if any of the above-described procedures are not completed as scheduled, or if any procedures need to be repeated for any reason, the participant will be compensated in an amount relative to the amounts listed above for the requested procedure.

8. ASSESSMENT DETAILS

SC1:

PAR: Standard HNRP assessments

COVID19 plan- screening will be done remotely. Consents and W9 form will be signed and mailed back to the HNRP in a pre-paid envelope

Unique assessments and forms include:

- Tesamorelin Eligibility Checklist (TECK)- Used by NM clinician to determine TESA eligibility
- Tesamorelin Supplemental Screening Questionnaire (TSSQ)- Used to assess participant use of exclusionary medication(s) and/or use of Tesamorelin within the past 6-months
- MRI Screening Questionnaire (CH25B)- Used to assess MRI eligibility
- Request for Taxpayer Identification Number and Certification (W9)- UCSD is required to report compensation to the IRS when compensation is $600 or more in a calendar year

Lab: Standard HNRP assessments

COVID19 plan- fingerstick rapid screen, pregnancy test (if applicable) and urine drug screen will continue to be done in person

NP: Standard HNRP assessments (brief assessment)

COVID19 plan- testing will be done remotely. Not all of the pre-COVID19 t-scores (Dom, Non-Dom, DS, SS, HVLTR-total) will be used to determine NP eligibility to proceed to the PE1 visit. The following t-scores will be used to determine NP PE1 eligibility: (f/u with Matthew)

NM: Standard HNRP assessments can be done remotely

COVID19 plan- waist circumference measurements will be done remotely using an approved tape measurer provided by the HNRP. The participant will measure their minimal waist circumference (W/C) three times under the guidance of a clinician. The clinician will record the minimal W/C measurements and will defer recording the following additional circumference measurements: hip, iliac waist, umbilicus, mid-waist and midarm. The interview portion of this visit will be done remotely as well.

Unique assessments and forms include:

- Clinical Algorithm- Interview Portion (CAIP)- used to assess for neuromedical stability. If a comprehensive NP battery was performed within 6-months of SC1 visit, the comprehensive NP battery can be linked to the PE1 rather than repeat testing.
- Tesamorelin Supplemental HIV Questions (TSHQ)- to assess whether patient currently receiving a cART regimen ≥12 weeks with no interruptions longer than 7 days and HIV <500 copies/ml during that time.

PE1/ITW:

PAR: Standard HNRP assessments

COVID19 plan- screening can be done remotely. Sub-study consents will be signed and mailed back to the HNRP in a pre-paid envelope

Unique assessments and forms include:

- CSF sub-study consent form- If the participant is found to be eligible, he or she will receive 2-3 lumbar punctures (LP) depending which group they are randomized to. Those in the immediate group will receive a LP at the 000, 024, and 048 visits. Those randomized into the deferred group will receive a LP at the 024 & 048 visits.
- PET scan sub-study consent form- If the participant is found to be eligible, he or she will receive a PET scan prior to starting study drug (Immediate group at the 000-visit and Deferred group at the 024-visit).

Lab: Standard HNRP assessments

COVID19 plan- assessment will continue to remain in-person

NP: Standard HNRP assessments

COVID19 plan- the participant will complete all assessments that can be done remotely in the home setting. Any assessments that cannot be completed remotely will be done in-person at the HNRP.

NM: Standard HNRP assessments.

COVID19 plan- the interview portion of this visit will be done remotely. Repeat W/C measurements and pregnancy test (if applicable) will be done as a precautionary measure to extend the screening timeline. If the participant is eligible to proceed to the ITW, deciding to perform the first placebo injection in-person versus remotely will be made of a case by case basis (ex: prior experience administering subcutaneous injections).

Unique assessments include:

- Injection Training Week (ITW) where the participant injects the first of five placebo injections at the HNRP and completes the remaining four injections at home. The Injection Training Week Phone Questionnaire (ITWQ) is completed by a clinician once the participant has completed their ITW to assess whether he or she is interested in continuing on with the study.

000:

PAR: Standard HNRP assessments

COVID19 plan- screening will be done remotely. Consents will be signed and mailed back to the HNRP in a pre-paid envelope

Lab: Standard HRNP assessments

COVID19 plan- lab involvement will only occur if the participant is randomized into the Immediate group and is enrolled in the CSF sub-study

NP: Not applicable

NM: Standard HNRP assessments.

COVID19 plan- the interview portion for this visit will be done remotely. The exam and lumbar puncture (if applicable) will continue to take place in-person. If randomized into the Immediate group, the participant will administer their first injection in the presence of the clinician.

Unique assessments include:

- Supplemental Exam (SPE1)- assesses for signs and symptoms that occur more frequently when taking Tesamorelin.
- ITAB forms (PTMO, ITAB, WRTS)- used by the interviewer to set up the text message component of TESA
- Motivational Interview Responses (MIRS)- to be used by NM staff if a participant fails to respond to their TESA texts three consecutive times. NM staff will use MIRS to encourage medication adherence
- Study Drug Count (CA35)- used by the interviewer to monitor medication adherence.

CSF: Lumbar Puncture Procedure Note (CA21)- only used if the participant is enrolled in the CSF sub-study (Immediate group only)

PET: For those enrolled in the PET scan sub-study, participants in the Immediate group will receive their pre-TESA scan.

002/026: Telephone interview

PAR: Not applicable

Lab: Not applicable

NP: Not applicable

NM: Standard HNRP assessments.

COVID19 plan- the interview portion of this exam will continue to be done via telephone

Unique assessments include:

- Daily Injection and Texting Evaluation (DITE)- assesses how the participant is doing with their daily injection and whether or not they are having any issues with their text message reminders to take TESA.
- Adverse Events (CDT7)- records any adverse signs and symptoms that are new or have worsened since starting TESA.

004/028:

PAR: Standard HRNP assessments

COVID19 plan- screening will be done remotely. Consents will be signed and mailed back to the HNRP in a pre-paid envelope

Lab: Standard HNRP assessments

COVID19 plan- blood draw will continue to be done in-person

NP: Not applicable

NM: Standard HRNP assessments

COVID19 plan- the interview portion for this visit will be done remotely. The exam will continue to be done in-person to ensure that adverse events (AEs) are discovered in a timely manner. Study drug/supplies will be dispensed in-person.

Unique assessments include:

- Daily Injection and Texting Evaluation (DITE)
- Adverse Events (CT7)
- Supplemental Exam (SPE1)

012/036:

PAR: Standard HNRP assessments

COVID19 plan- screening will be done remotely. Consents will be signed and mailed back to the HNRP in a pre-paid envelope

Lab: Standard HRNP assessments

COVID19 plan- bloodwork will be deferred so long as the prior labs (004/028) are stable and the participant does not report something that the clinician determines needs to be assessed in-person

NP: Not applicable

NM: Standard HRNP assessments.

COVID19 plan- the interview portion for this visit will be done remotely. The exam will be modified as not all aspects of the exam can be completed remotely. The clinician will coordinate with pharmacy regarding study drug/supplies dispensing.

Unique assessments include:

- Daily Injection and Texting Evaluation (DITE)
- Adverse Events (CT7)
- Supplemental Exam (SPE1)

024:

PAR: Standard HRNP assessments

COVID19 plan- screening will be done remotely. Consents will be signed and mailed back to the HNRP in a pre-paid envelope

Lab: Standard HRNP assessments

COVID19 plan- blood draw will continue to be done in person

- Females in the Deferred group will have another Rapid Screen Pregnancy Test run prior to starting drug

NP: Standard HNRP assessments

COVID19 plan- the participant will complete all assessments that can be done remotely in the home setting. Any assessments that cannot be completed remotely will be done in-person at the HNRP.

NM: Standard HNRP assessments

COVID19 plan- the interview portion for this visit will be done remotely. The exam and lumbar puncture (if applicable) will continue to take place in-person. If randomized into the Deferred group, the participant will administer their first injection in the presence of the clinician.

Unique assessments include:

- Supplemental Exam (SPE1)
- ITAB forms (PTMO, ITAB, WRTS), Motivational Interview Responses (MIRS)- Deferred group only
- iTAB-T Feedback Questionnaire (BD31)- assess participant perception of texting component of TESA (Immediate group only)
- Study Drug Count (CA35)

CSF: Lumbar Puncture Procedure Note (CA21)- enrolled participants in both the Immediate and Deferred groups.

PET: For those enrolled in the PET scan sub-study, participants in the Deferred group will receive their pre-TESA PET scan.

048:

PAR: Standard HNRP assessments

COVID19 plan- screening will be done remotely. Consents will be signed and mailed back to the HNRP in a pre-paid envelope

Lab: Standard HNRP assessments

COVID19 plan- blood draw will continue to be done in person

NP: Standard HRNP assessments

COVID19 plan- the participant will complete all assessments that can be done remotely in the home setting. Any assessments that cannot be completed remotely will be done in-person at the HNRP.

NM: Standard HNRP assessments

COVID19 plan- the interview portion for this visit will be done remotely. The exam and lumbar puncture (if applicable) will continue to take place in-person.

Unique assessments include:

- Supplemental Exam (SPE1)
- iTAB-T Feedback Questionnaire (BD31)- Deferred group only
- Study Drug Count (CA35)- Deferred group only

CSF: Lumbar Puncture Procedure Note (CA21)- enrolled participants in both the Immediate and Deferred groups.
PET: For pts in the PET sub-study, Deferred participants will receive their post-TESA PET scan.

Lab Protocol: Please review the NM Lab Ops protocol for further information

Table 3. Laboratory specimen collection

	Fluid Type	Visits	Specimen Tube Type	Specimen Volume	Specimen Processing
Complete Blood Count (CBC)	Plasma	PE1, 004, 012, 024, 028, 036, 048	Lavender Top	4ml	UCSD & LabCorp
T-cell subset	Plasma	PE1, 024, 048	Yellow Top	6ml	UCSD & LabCorp
HIV RNA	Plasma		Lavender Top	2ml	UCSD & ARUP
Comprehensive Metabolic Panel (CMP) and LFTs	Plasma	PE1, 004. 012, 024, 028, 036, 048	Tiger Top	8.5ml	UCSD & LabCorp
HgbA1C	Plasma	PE1, 024, 048	Lavender Top	4ml	UCSD & LabCorp
IGF-1	Plasma	PE1, 004, 024, 028, 048	Lavender Top	12ml	UCSD & USC
HIV RNA	CSF	000 (if in the Immediate arm), 024, 048	Polystyrene collection tube	12ml	UCSD & ARUP
Storage	Blood & CSF	PE1, 004, 012, 024, 028, 036, 048	Lavender Top and Polystyrene collection tube	Varies based on available collection at the time of the visit	UCSD and then sent to the Freezer Farm

9. NEW DEVICES OR TECHNOLOGY

No new devices or technology are being used in this clinical trial.

10. FORMS

TESA (or TESB at UCSD) includes screening (SC1), Pre-Entry (PE1) and Entry (000) visits
* Use only if randomized into the Immediate group
** Use only if randomized into the Immediate group and enrolled into the CSF sub-study
# Use if conducting a remote SC1 visit
$ Use if conducting a combined SC1/PE1 visit

Table 4. Case Report Forms by Visit

CRF Name	CRF ID	SC1	PE1	000
		Screening	Pre-Entry	Entry
In-person		X	X	X
Screening Battery Forms				
Detailed MRI Screening Questionnaire	CH25B	X		
DAST- Modified Version	TM12	X		
Audit	NP49	X		
Request for Taxpayer Identification Number and Certification	W9	X		
Bill of Rights	SD25	X		
Screening & Enrollment Questionnaire	SE01	X		
Demographics & Locator Questionnaire	DL01E	X		
Core Screening Questionnaire: Studies & Procedures	PS01	X		
Core Screening Questionnaire: Employment, Education, and Living Situation	PS02	X		
1993- Modified CDC Classification Worksheet	CH43	X		
Core Screening Questionnaire: Overall Health	PS03	X		
Core Screening Questionnaire: Substance Use	PS04	X		
Core Screening Questionnaire: Driving	PS06	X		
HNRP Screening Questionnaire: HIV	PS08	X		
Core Screening Questionnaire: Intervention Studies	PS05	X		
Core Screening Questionnaire: Testing Language	PS07	X		
Wrat 4 Reading (Green)- Examiner use only	TB25B	X		
Assessment of Informed Consent- Participant Version	SD17_TESA	X		
Assessment of Informed Consent- Evaluator Version	SD18	X		
Tesamorelin Eligibility Checklist	TECK	X		
Tesamorelin Supplemental Screening Questionnaire	TSSQ	X		
Tesamorelin MRI Preparation Guidelines	MRIP	X		

Neuromedical Battery Forms				
Neuromed. Medications Adherence (**Handout**)	CA15	X		X
Brief Medical History Questionnaire-Baseline (**Handout)**	TB13A	X		
Lipoatrophy Questionnaire **(Handout)**	CH17			X
Diagnosis ICD-9	CA16	X	X	X
Cardiovascular and Stroke Risk Questionnaire	CH53			X
Medication Summary	CA33	X	X	X
1993 Modified CDC Classification Worksheet	CH43	X	X	X
Antiretroviral Summary	CH36	X		X
Current Antiretroviral Drugs	CH33		X	X
ACTG Adherence to Anti-HIV Medications	CA13			X
Neurological History and Examination	CH40			X
Supplemental Physical Exam	SPE1			X
Vital Signs	CA7		X	X
ARV Utility Placeholder	ARV	X	X	X
Tesamorelin Supplemental HIV Questions	TSHQ	X		
Anthropomorphic Measurement	T19	X		
Clinical Algorithm- Interview Portion	CAIP	X		
Study Drug Count	CA35			X*
iTAB forms				
iTAB-T Phone and Text Message Options	PTMO			X*
TESA iTAB Instructions Text Setup	ITAB			X*
iTAB-T Wrong Response Tracking Sheet	WRTS			X*
Motivational Interview Responses	MIRS			X*
Injection Training Week Battery Forms				
Injection Training Week Phone Questionnaire	ITWQ		X	
Blood and CSF Battery Forms				
Specimen Orders	CA20		X	X
Rapid Screen Results	CA32	X		
Lumber Puncture Procedure Note	CA 21			X**
Utox Battery Forms				
Toxicology Test and Breathalyzer Results	CA17	X	X	
Neurobehavioral Battery Forms				
Neurobehavioral History- Interval	NPNI	X#$	X	
Behavioral Notes	NP31	X#$	X	
Hopkins Verbal Learning Test Revised- Record Form E	TB15E	X$	X	
Hopkins Verbal Learning Test-Revised	TB15A-F	X#		
WAIS-III Digit Symbol	ND16	X$		
WAIS-III Symbol Search	ND18	X#$		
Grooved Pegboard Test Summary Sheet	TB31	X$		
PASAT 50	NP17B	X#		
Stroop Test	NC6N	X#		
Becks Depression Inventory-II	CH3		X	

Patient's Assessment of Own Functioning	NP6		X	
POMS 65 Questionnaire	NP30		X	
Activities of Daily Living	NC2		X	
MOS- HIV Health Survey	CH14		X	
Temporal Experience of Pleasure Scale	TEPS		X	
Frontal Systems Behavioral Scale	ND35		X	
Hiscock Digit Memory Test	NC3		X	
Brief Visuospatial Memory Test- Revised	TB16		X	
Trail Making Test- Part A	NP19A		X	
Trail Making Test- Part B	NP19B		X	
WAIS-III Letter-Number Sequencing	ND19		X	
Wisconsin Card Sorting Test	WISCONSIN		X	
Controlled Oral Word Associated Test- FAS	NP23A		X	
Category Fluency Test	NP27		X	
Stroop Test	NC6N		X	
Paced Auditory Serial Addition Tast-1 Channel	NP17B		X	
Wrat 4 Reading- Examiner use only	TB25A		X	
UCSD Performance-based Skills Assessment Brief (UPSA-B) Scoring Form	NP57		X	
NIH Toolbox Administration	TM82		X	
DSMIV Diagnostic Scores	CIDI		X	
Substance Use	CH13A		X	
NIDA Substance Use History	ND25		X	
Composite International Diagnostic Interview (CIDI) Modules	NP54		X	

TESI includes visits for the Immediate arm: Week 2 (002), Week 4 (004), Week 12 (012), Week 24 (024) and Week 48 (048)

CRF Name	**CRF ID**	**002**	**004**	**012**	**024**	**048**
		Week 2	Week 4	Week 12	Week 24	Week 48
In-person			X	X	X	X
Neuromedical Battery Forms						
Neuromed. Medications Adherence (**Handout**)	CA15				X	X
Brief Medical History Questionnaire-Baseline (**Handout)**	TB13A					X
Diagnosis ICD-9	CA16	X	X	X	X	X
Adverse Events	CT7	X	X	X	X	X
Cardiovascular and Stroke Risk Questionnaire	CH53				X	X
Medication Summary	CA33	X	X	X	X	X
Study Drug Count	CA35		X	X	X	
1993 Modified CDC Classification Worksheet	CH43	X	X	X	X	X
Antiretroviral Summary	CH36	X	X	X	X	X

Current Antiretroviral Drugs	CH33		X	X	X	X
ACTG Adherence to Anti-HIV medications	CA13				X	X
Neurological History and Examination	CH40				X	X
Supplemental Physical Exam	SPE1		X	X	X	X
Anthropomorphic Measurement	T19				X	X
Vital Signs	CA7		X	X	X	X
Daily Injection and Texting Evaluation	DITE	X	X	X		
ARV Utility Placeholder	ARV	X	X	X	X	X
iTAB forms						
iTAB Feedback Questionnaire	BD31				X	
Blood and CSF Battery Forms						
Specimen Orders	CA20		X	X	X	X
Lumbar Puncture Procedure Note	CA21				X	X
Utox Battery Forms						
Toxicology Test and Breathalyzer Results	CA17				X	X
Neurobehavioral Battery Forms						
Neurobehavioral History- Interval	NPNI				X	X
Behavioral Notes	NP31				X	X
Hopkins Verbal Learning Test Revised-Record Form E	TB15E				X	X
WAIS-III Digit Symbol	ND16				X	X
WAIS-III Symbol Search	ND18				X	X
Grooved Pegboard Test Summary Sheet	TB31				X	X
Becks Depression Inventory-II	CH3				X	X
Patient's Assessment of Own Functioning	NP6				X	X
POMS 65 Questionnaire	NP30				X	X
Activities of Daily Living	NC2				X	X
MOS- HIV Health Survey	CH14				X	X
Temporal Experience of Pleasure Scale	TEPS				X	X
Frontal Systems Behavioral Scale	ND35				X	X
Hiscock Digit Memory Test	NC3				X	X
Brief Visuospatial Memory Test- Revised	TB16				X	X
Trail Making Test- Part A	NP19A				X	X
Trail Making Test- Part B	NP19B				X	X
WAIS-III Letter-Number Sequencing	ND19				X	X
Wisconsin Card Sorting Test	WISCONSIN				X	X
Controlled Oral Word Associated Test-FAS	NP23A				X	X
Category Fluency Test	NP27				X	X
Stroop Test	NC6N				X	X

Paced Auditory Serial Addition Test-1 Channel	NP17B				X	X
Wrat 4 Reading- Examiner use only	TB25A				X	X
UCSD Performance-based Skills Assessment Brief (UPSA-B) Scoring Form	NP57				X	X
NIH Toolbox Administration	TM82				X	X
DSMIV Diagnostic Scores	CIDI				X	X

TESD includes visits for the Deferred arm: Week 24 (024), Week 26 (026), Week 28 (028), Week 36 (036) and Week 48 (048)

CRF Name	**CRF ID**	**024**	**026**	**028**	**036**	**048**
		Week 24	Week 26	Week 28	Week 36	Week 48
In-person		X		X	X	X
Neuromedical Battery Forms						
Neuromed. Medications Adherence (**Handout**)	CA15	X				X
Brief Medical History Questionnaire-Baseline (**Handout)**	TB13A	X				X
Diagnosis ICD-9	CA16	X	X	X	X	X
Adverse Events	CT7		X	X	X	X
Cardiovascular and Stroke Risk Questionnaire	CH53	X				X
Medication Summary	CA33	X	X	X	X	X
Study Drug Count	CA35	X		X	X	X
1993 Modified CDC Classification Worksheet	CH43	X	X	X	X	X
Antiretroviral Summary	CH36	X	X	X	X	X
Current Antiretroviral Drugs	CH33	X		X	X	X
ACTG Adherence to Anti-HIV medications	CA13	X				X
Neurological History and Examination	CH40	X				X
Supplemental Physical Exam	SPE1	X		X	X	X
Anthropomorphic Measurement	T19	X				X
Vital Signs	CA7	X		X	X	X
ARV Utility Placeholder	ARV	X	X	X	X	X
Daily Injection and Texting Evaluation	DITE		X	X	X	
iTAB forms						
iTAB-T Phone and Text Message Options	PTMO	X				
iTAB Instructions Text Setup	ITAB	X				
iTAB-T Wrong Response Tracking Sheet	WRTS	X				
iTAB-T Feedback Questionnaire	BD31					X

Motivational Interview Responses	MIRS	X				
Blood and CSF Battery Forms						
Rapid Screen Results	CA32	X				
Specimen Orders	CA20	X		X	X	X
Lumbar Puncture Procedure Note	CA21	X				X
Utox Battery Forms						
Toxicology Test and Breathalyzer Results	CA17	X				X
Neurobehavioral Battery Forms						
Neurobehavioral History- Interval	NPNI	X				X
Behavioral Notes	NP31	X				X
Hopkins Verbal Learning Test Revised-Record Form E	TB15E	X				X
WAIS-III Digit Symbol	ND16	X				X
WAIS-III Symbol Search	ND18	X				X
Grooved Pegboard Test Summary Sheet	TB31	X				X
Becks Depression Inventory-II	CH3	X				X
Patient's Assessment of Own Functioning	NP6	X				X
POMS 65 Questionnaire	NP30	X				X
Activities of Daily Living	NC2	X				X
MOS- HIV Health Survey	CH14	X				X
Temporal Experience of Pleasure Scale	TEPS	X				X
Frontal Systems Behavioral Scale	ND35	X				X
Hiscock Digit Memory Test	NC3	X				X
Brief Visuospatial Memory Test- Revised	TB16	X				X
Trail Making Test- Part A	NP19A	X				X
Trail Making Test- Part B	NP19B	X				X
WAIS-III Letter-Number Sequencing	ND19	X				X
Wisconsin Card Sorting Test	WISCONSIN	X				X
Controlled Oral Word Associated Test-FAS	NP23A	X				X
Category Fluency Test	NP27	X				X
Stroop Test	NC6N	X				X
Paced Auditory Serial Addition Test-1 Channel	NP17B	X				X
Wrat 4 Reading- Examiner use only	TB25A	X				X
UCSD Performance-based Skills Assessment Brief (UPSA-B) Scoring Form	NP57	X				X
NIH Toolbox Administration	TM82	X				X
DSMIV Diagnostic Scores	CIDI	X				X