Bridge HIV: Research Overview

Innovations in HIV Prevention

Health Commission
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Who we are?  

NIH-funded Clinical Trials Unit which operates within the San Francisco Department of Public Health and is affiliated with UCSF

Bridge HIV Mission  

To collaborate with communities in conducting innovative research that will guide HIV prevention locally and globally.
Bridge HIV: A Tradition of Innovative Research to Prevent HIV/AIDS

SF City Clinic Cohort Study
- HIV antibody test
- Natural history
- Long term non-progression (LTNP)

Vaccine Preparedness Studies
- Recruitment and retention of at-risk cohorts
- Risk factors for infection
- Per-contact risk

Behavioral and Biomedical Interventions
- Individualized, client centered counseling
- Preventive Vaccines*
- STD interventions (HSV-2 suppression)
- Pre-exposure Prophylaxis*
- Rectal and vaginal microbicides*
- Peer navigation among Black and Latino MSM*
- Home HIV and STI testing*

Evaluating Intervention Delivery and Building Research Capacity
- Combination Prevention*
- Implementation Research*
- Fostering a new generation of HIV researchers*

*Active studies
Vaginal Rings
MPTs
Rectal microbicides

HIV Vaccines
bNAbs

Novel PrEP agents
Long acting PrEP formulations
Integrated Strategies

HIV Vaccine Trials Network
HPTN
MTN
COVID-19 Prevention Network (CoVPN)

• Formed by NIAID at NIH
  • Global network of NIAID sites and Clinical Research Organization sites, as needed
  • Links together multiple NIH-sponsored networks
  • Local sites include Bridge HIV (SFDPH), UCSF/ZSFG, EBAC (Oakland), SFVAH

• Mission: To conduct Phase III efficacy trials to prevent infection and COVID-19 disease

• Plan to open 5 Phase III vaccine efficacy trials in 2020 – early 2021
NIAID COVID-19 Prevention Network, N=189 (as of 8/1/2020)
AZD1222 Study in San Francisco

- Plan to enroll approximately 500 study participants at two sites in San Francisco (SFDPH-Bridge HIV & UCSF-ZSFG)

- Prioritizing access and Black, Latinx, Pacific Islander, and Native American study participants
  - Goal: Vaccine study participants reflect the communities most impacted by COVID-19

- Bridge HIV Site: 133/250 Enrolled
  - 23% Black, 44% Latinx, 13% White, 13% Asian, 2% Native Hawaiian/Pacific Islander
  - 32% over 60 yo
Community Engagement is Key
COVID-19 Vaccine Community Engagement
PrEP initiations have increased substantially in SF

PrEP use among MSM in San Francisco: NHBS and STOP AIDS surveys

*Based on estimated sample size of 44,154 HIV negative MSM in SF in 2014
Hughes et al, J Urban Health 2017; Buchbinder CROI 2018
Lack of PrEP persistence accentuates disparities

- Median duration: 8.3 mo
- Retention at 12 mo: 38%
- Higher discontinuation:
  - Youth
  - African American
  - PWID
  - Transwomen

San Francisco Primary Care Clinics
LYNX: Mobile app to increase HIV testing and PrEP uptake (ATN 140 and ATN 143)

Welcome to Lynx!
Lynx is all about blending pleasure with HIV prevention. It'll help you track, check, and protect so you can focus on the pleasure of sex.

Your Partner Insights
For 15 encounters with 10 partners:

Partner types
60% PRIMARY 16% HOOK-UP 15% ONE-NIGHT STAND 10% REGULAR

Golden Butt
100% condom use as a bottom in a month

Liu, Scott, Buchbinder JMIR 2018

Hightow-Weidman NICHD 1U19 HD089881
SMS Support for PrEP Retention & Adherence

- Patterned after the WelTel model of weekly text-message check-ins to support ARV adherence
- Impact primarily through personalized communication between participants and clinic staff; doubled adherence to PrEP

How is PrEP going?
Ok
Not great.

Liu CID 2018; Lester Lancet 2010; Chiang JMIR mHealth & uHealth 2018
Adherence Tracking and Protection Levels

**TODAY PROTECTION LEVEL**

- **No/Low**
  - Take PrEP for 3 days to be highly protected.

- **Medium**
  - Take PrEP for 2 days to be highly protected.

- **High**
  - Continue taking PrEP daily.
Digital Support for PREP 2-1-1

Home screen with timer

**PrEPmate 211**

**TODAY**

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Dosing

Sex

**Last Dose**
June 17, 2018
9 am

Time to protection:
1h: 19min.

Home screen

**PrEPmate 211**

**TODAY**

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Dosing

Sex

**TODAY**

June 19, 2018

Your next dose is tomorrow at
9 am

Your last dose was 1 day ago.

Protection level:

**Protection Level**

- High protection
- Medium protection
- Low/no protection

Legend

**Key**

- 🔥 Confirmed sex day
- ⚫ Possible sex day

**% of time sex acts occur by day of week:**

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**40%** of all sex acts covered by PrEP

Having trouble with 211 PrEP?
Chat with your provider about switching to daily PrEP.

Trends

**PrEPmate 211**

**Trends**

**# of sex days last month**

6

**% of time sex acts occur by day of week:**

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**40%** of all sex acts covered by PrEP

Sex acts covered by PrEP

40% 20% 20% 20%
PrEP-3D: Digital Diary and Delivery for MSM

- Pharmacy-led models of PrEP delivery are feasible and sustainable can reduce burden on clinics¹, ²

- PrEP-3D
  - Online pharmacist provides PrEP Rx, orders/tracks lab monitoring through collaborative practice agreement
  - Medication delivery through courier
  - Online tools (pill/sex diary, bi-directional messaging) support adherence and persistence

STAY

NOW THERE’S A PILL THAT CAN HELP PREVENT HIV INFECTION FOR TRANS PEOPLE. IT’S CALLED PrEP. IT’S SAFE. IT CAN HELP YOU STAY HIV-NEGATIVE.

Get PrEP for free, the support you need to take it every day and up to $375.

Text “STAY” to (617) 826-9932 to find out how or visit us at StayStudy.org
Studies on the horizon

- **CoVPN:**
  - AstraZeneca trial: enrolling 250 ppts
  - Sanofi trial starting in January
- **Merck**
  - New monthly PrEP pill for MSM/TGW
- **Gilead**
  - New semi-annual injectable PrEP for TGW
- **AMBER**
  - Socio-behavioral research to guide PrEP implant development in MSM, cisgender women, and TGW
- **PrEP implementation**
  - PCORI: Comparative effectiveness trial evaluating 2 mobile technologies to support PrEP use
  - Writing several grants
Thank you!