

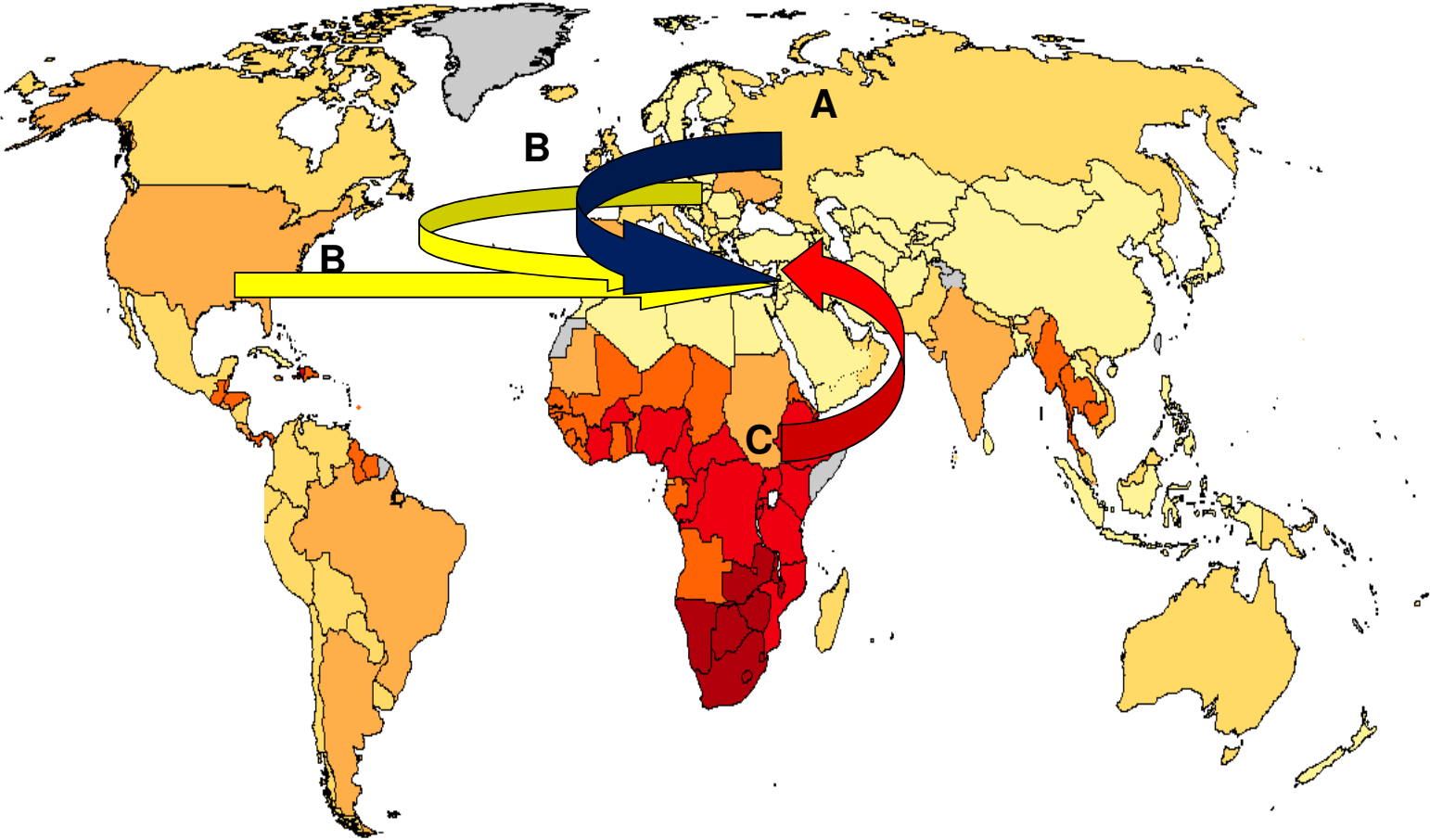
Trends of the Ongoing Spread of HIV Subtype A in Tel Aviv, Israel

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BACKGROUND

HIV-1 infected population in Israel is diverged in its exposure risk categories and HIV-1 subtypes



METHODS

- **Patients**

- Followed in Tel-Aviv AIDS Center
- Presented 2005-2016
- Treatment Naïve: The first blood samples obtained from each treatment-naïve patients joining Tel Aviv HIV clinic after the diagnosis of HIV are sequenced routinely .
- HIV RNA >100 c/ml (considered as failure therapy after a second confirmation)
- Protease and reverse transcriptase (RT) sequence
- Subtype A (Riga v. 3.0)
- N=313

- **Analysis**

- Demographic analysis
- Sequence Alignment (MEGA)
 - ML
 - BEAST
 - posterior probability ≥ 0.95 of having a recent common ancestor

Patients' Characteristics

No of Sequences	Total n = 313
Treatment status	
Naïve	272
Treated	41
Gender	
Male	203
Females	110
Risk	
Hetero	106
IVDU	131
MSM	42
Others	34
Birth Place	
FSU	219
Israel	69
Others	25
Seroconverted	18
Average ambiguity	1.10±0.07
Average age	37.6±0.61

Phylogenetic Analysis Reveals Distinct and Diverse Groups of Individuals Infected with HIV Subtype A

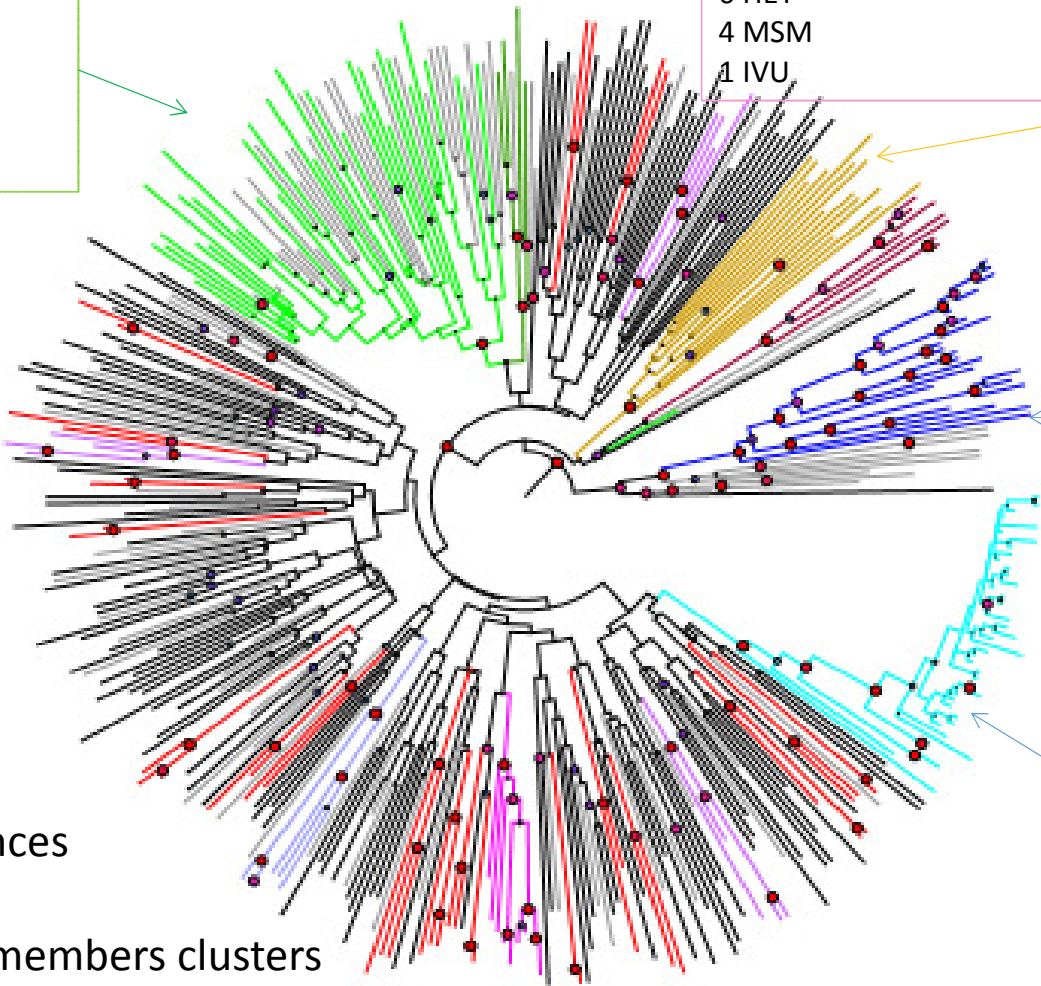
Cluster 22 n=31
 17 IVU
 11 HET
 1MSM

Cluster 28 n=15
 6 HET
 4 MSM
 1 IVU

Cluster 29 n=8
 5 MSM 1 HET

Cluster 27 n=22
 14 MSM 12 TDR K103N
 5 HET
 1 IVU

Cluster 1 n=43
 42 IVU Cathinone related
 (12 seroconverters)
 1 HET



- Los Alamos sequences
- Unclustered Israeli sequences
- Israeli sequences in 4-43 members clusters

DISCUSSION

- **Subtype A was introduced into Israel largely from IVDU borne in the FSU**
- **Clusters analysis reveals diverse spread of Subtype A with distinct demographic characteristics**
 - **MSM predominant (1 cluster with TDR)**
 - **IVDU predominant**
 - **Mixed MSM/Heterosexual**
- **Outbreak of HIV linked to Cathinone injection was controlled by local intervention but still continue to spread**
 - **New seroconverters among IVDU**
 - **Spread to heterosexual risk group**
- **Spread to MSM could be facilitated since CHEMSEX became popular among this group in Tel Aviv**
- **Comprehensive surveillance is essential to effectively monitor and control this ongoing epidemic.**

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All the Patients