

## Background

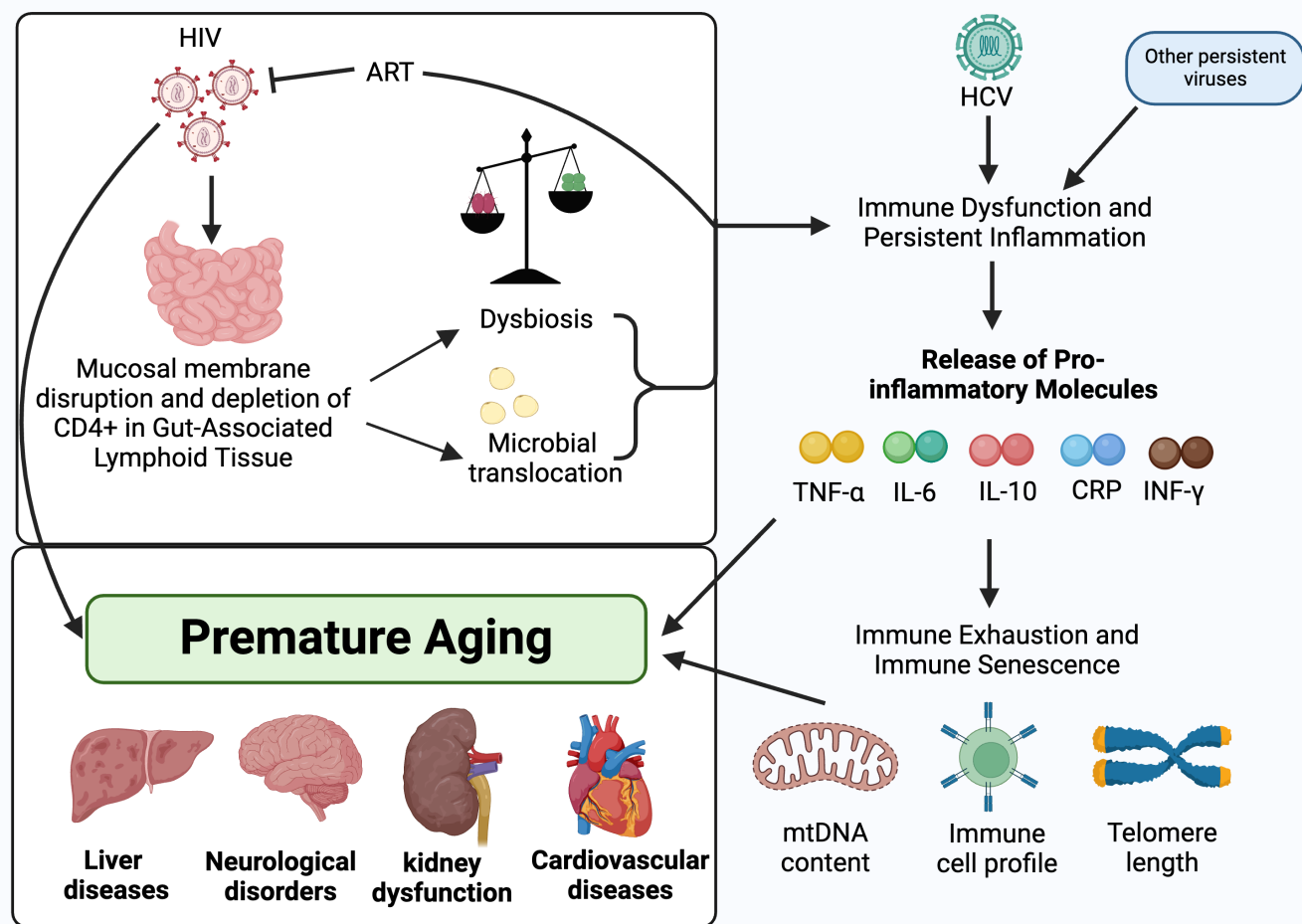


Figure 1. HIV, Hepatitis C virus (HCV), and Premature Aging.

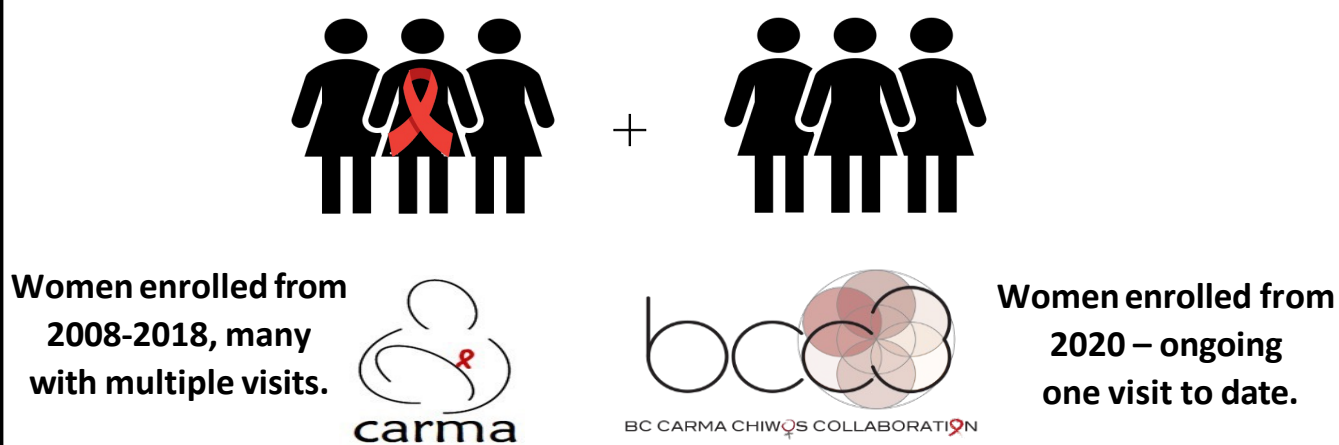
## Objective

To characterize the effect of chronic HCV clearance on LTL and ALT in women living with HIV.

## Hypotheses

- Clearance of HCV will be associated with;
- 1) Slower loss of leukocyte telomere length (LTL)
  - 2) Decrease in Plasma Alanine aminotransferase (ALT)

## Study Design



Women enrolled from 2008-2018, many with multiple visits. **carma** Children and Women AntiRetrovirals and Markers of Aging (CARMA).

Women enrolled from 2020 – ongoing one visit to date. **bcc3** British Columbia CARMA-CHIWOS Collaboration (BCC3).

Figure 2. Cohorts

## Methods

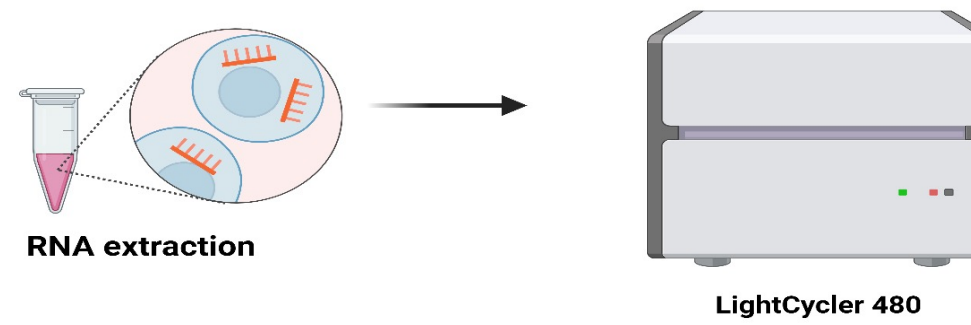


Figure 3. RNA Extraction and Qualitative detection of HCV RNA using Real-Time PCR (Duplex format).

Table 1. Group descriptors and participant distribution.

Group descriptors		HCV Clearance	Chronic HCV
Baseline	HIV Status	+	+
	HCV RNA Status	+	+
Follow up	HIV Status	+	+
	HCV RNA Status	-	+
Current n/group (from CARMA+BCC3)		15	12

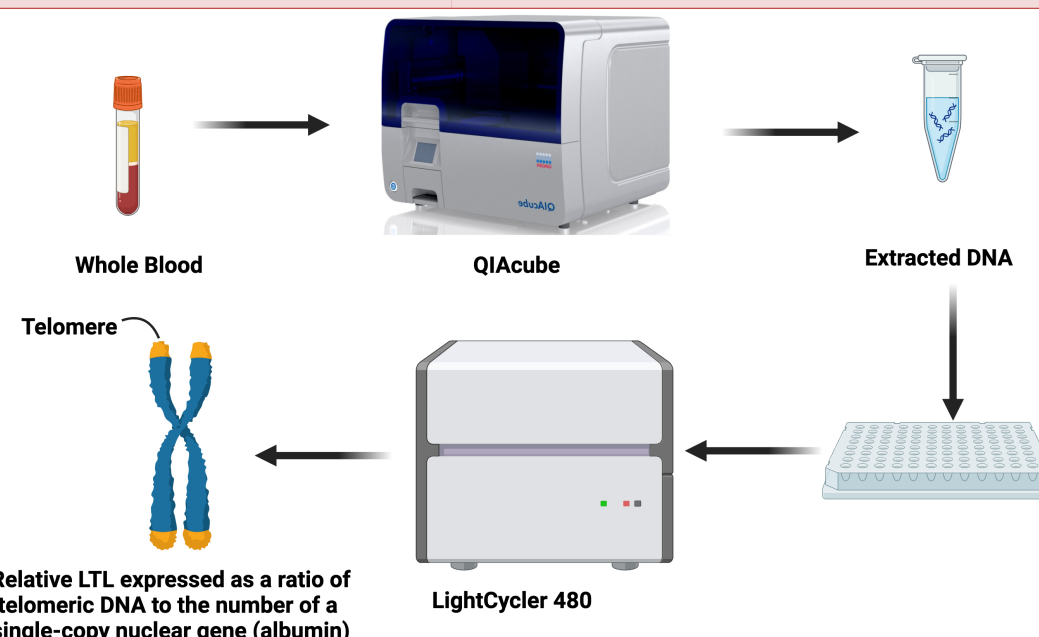


Figure 4. Telomere length measurement by monochrome multiplex qPCR.

## Results

Table 2. Change in LTL and ALT measurements from Baseline to Follow-Up.

Group	Bio Marker	Mean Difference	95% CI	P value
HCV Clearance	LTL	-0.09	(-1.10, 0.91)	0.84
	ALT	-18.43	(-48.37, 11.51)	0.40
Chronic HCV	LTL	0.18	(-0.65, 1.01)	0.64
	ALT	16.36	(-19.56, 52.29)	0.85

## Results

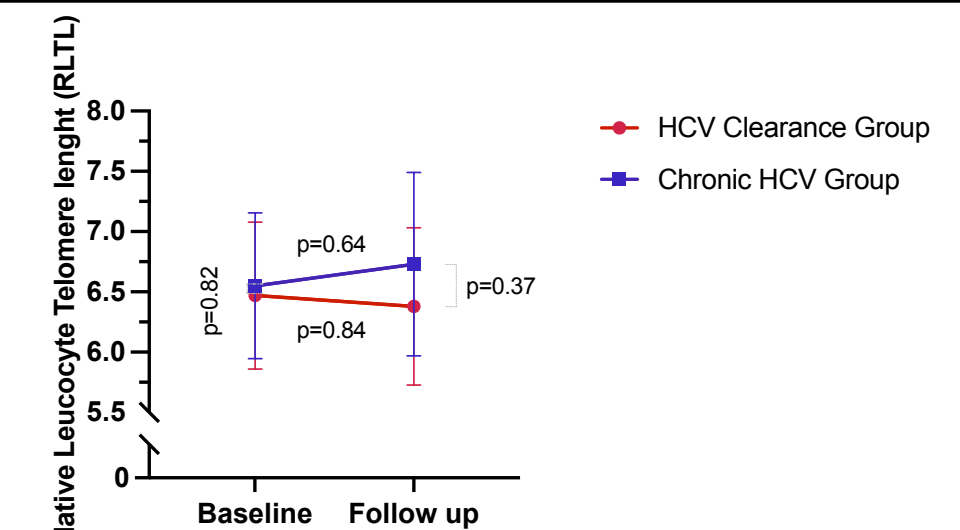


Figure 5. Comparison of the mean RLTL values in the HCV Clearance and HCV Chronic groups at Baseline (n=15 and n=12) throughout Follow up

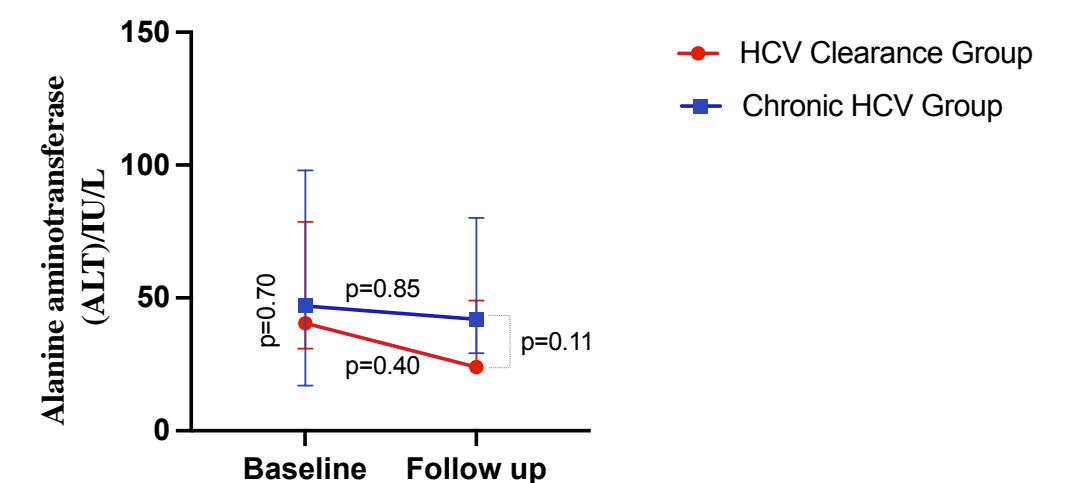


Figure 6. Comparison of median ALT levels in HCV Clearance and Chronic HCV groups at Baseline (n=15 and n=12) throughout Follow up respectively.

## Future Directions

We will increase our sample size by collaborating with the Canadian Coinfection Cohort, to identify potential differences. Additionally, we will also include other markers of immune aging and inflammation to investigate the impact of HCV clearance.

## Acknowledgements

The land I work and live on is the unceded territory of the Coast Salish peoples, including the territories of the Tseil-Waututh, Musqueam and Squamish Nations.

All CARMA and BCC3 Study Participants, Investigators, staff and Cote Lab members.



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