CROI ICAR AWARDS 2023

SEATTLE
CROI Affiliated Event for Italian Young Investigators

CHAIRS
**D. Margolis** (Chapel Hill, US)
**G. Silvestri** (Atlanta, US)

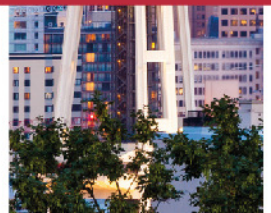
# Mortality linked to higher inflammation in kids with perinatal HIV

Elena Morrocchi, PhD

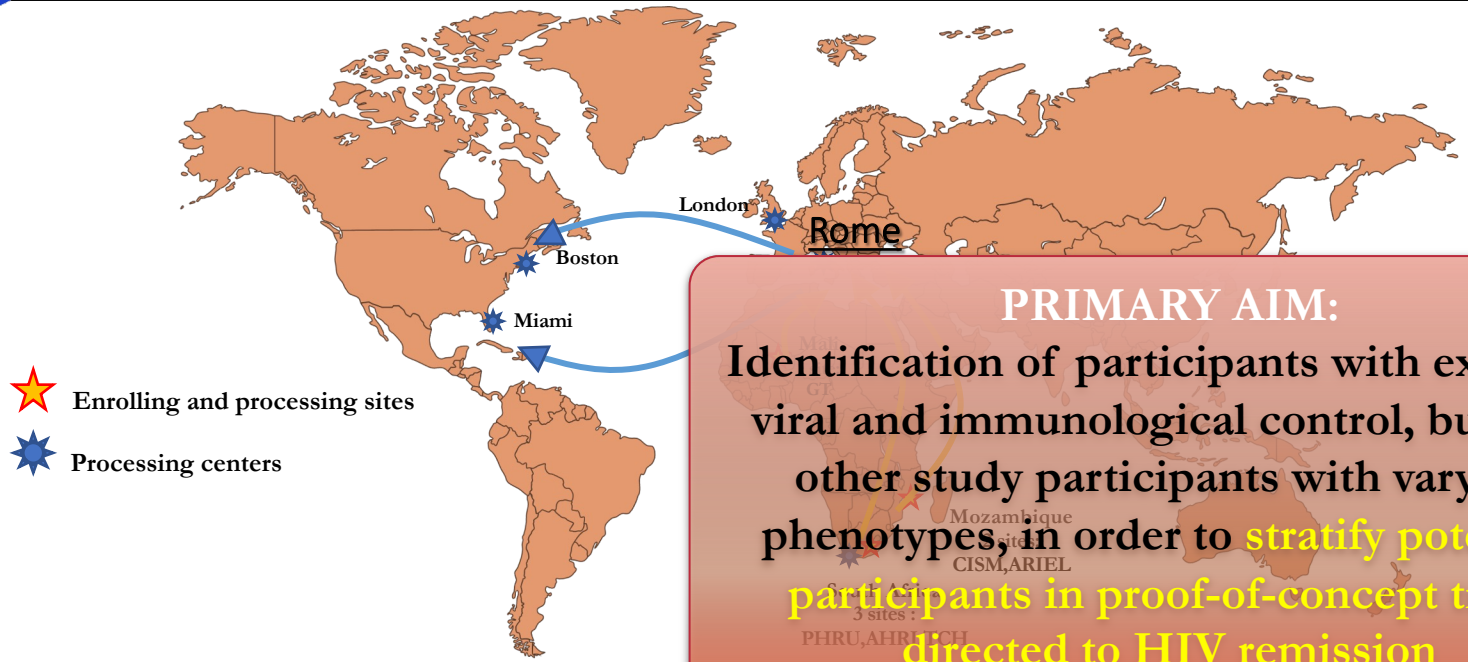
*Poster session* Feb 21th, 2023 -2.30-4.00 pm-

30th CROI
Conference on Retroviruses and Opportunistic Infections
SEATTLE FEBRUARY 19 - 22, 2023 SUMMIT CONVENTION CENTER

Organised by
ICAR 15° CONGRESSO NAZIONALE
Italian Conference on AIDS and Antiviral Research
BARI 14-16 GIUGNO 2023 UNIVERSITA' DEGLI STUDI ALDO MORO



# Early Anti-Retroviral Treatment In HIV Children

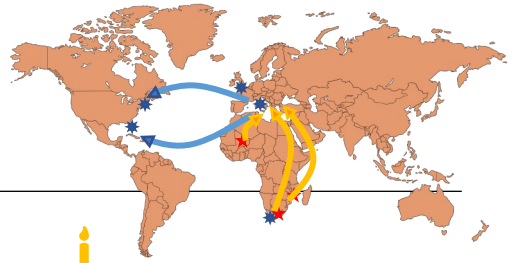



**PRIMARY AIM:**

**Identification of participants with excellent viral and immunological control, but also other study participants with varying phenotypes, in order to stratify potential participants in proof-of-concept trials directed to HIV remission**

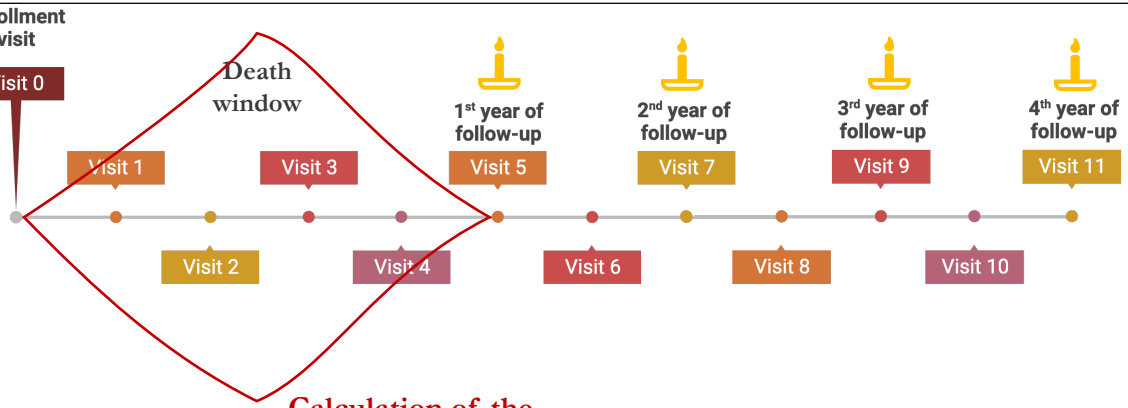
# Study Design

711 2-YEAR OUTCOME OF EARLY TREATED INFANTS IN SUB-SAHARAN AFRICA
**Alfredo Tagarro**[1], Sara Domínguez-Rodríguez[1], Louise Kuhn[2], Tacilta Nhampossa[3], Kennedy Otwombe[4], Anita Janse van Rensburg[5], Nigel Klein[6], Maria Grazia Lain[7], Almoustapha I. Maiga, Camille Brehin[9], Carlo Giaquinto[10], Paolo Rossi[11], Pablo Rojo[1]

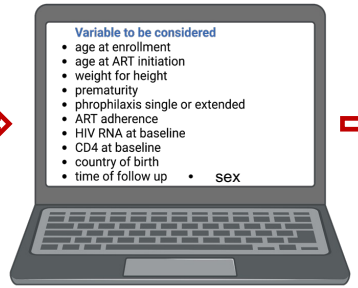


Longitudinal Blood Drown collection

N=220




## Calculation of the Propensity Score




20 HIV+ deceased kids

40 HIV+ selected kids

13 HIV unexposed Uninfected kids

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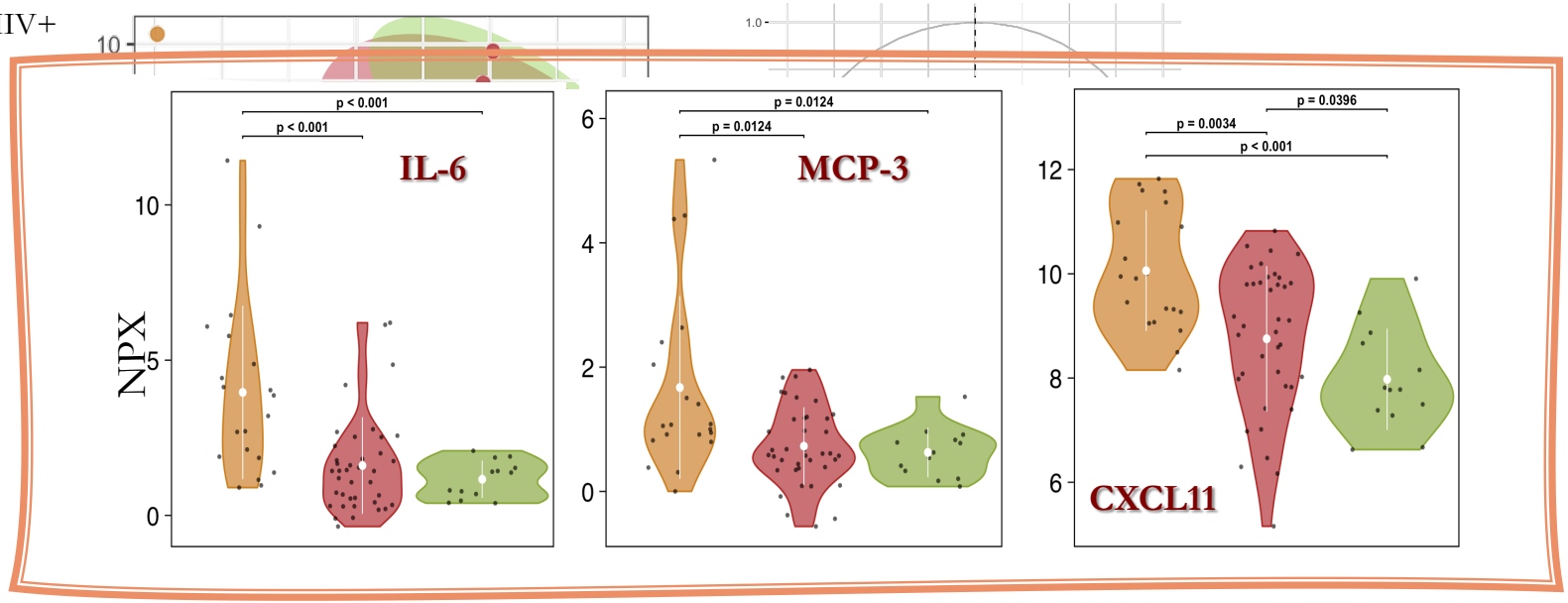
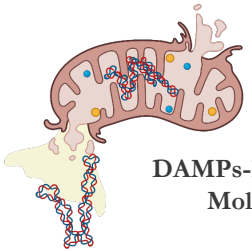
# Can pro-inflammatory proteins discriminate Dead-HIV+?

- Dead-HIV+
- HIV+
- HC

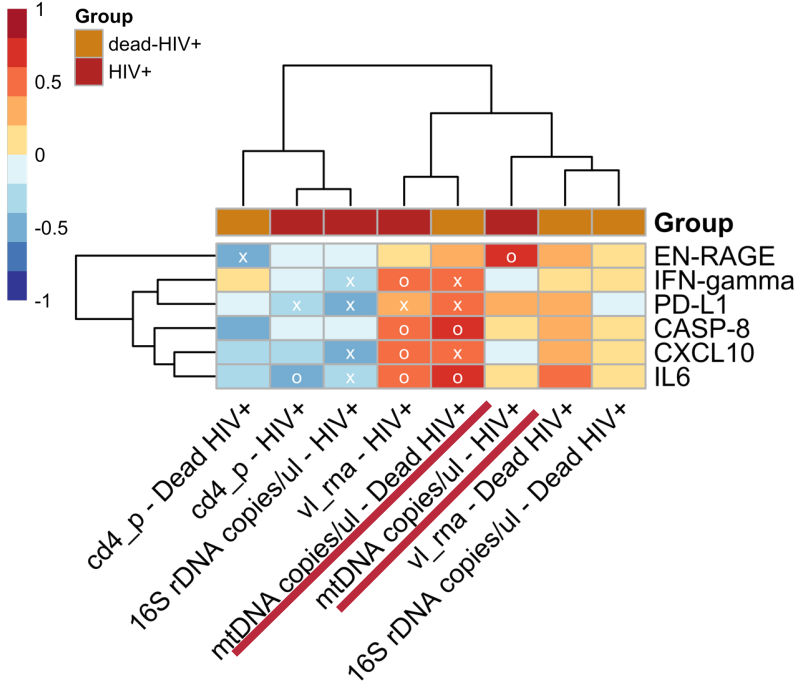


# Endogenous damage associated molecular patterns (DAMPs) correlate with pro-inflammatory molecules only in Dead-HIV+

Prof. Anita De Rossi
Dr. Raffaella Petrara



DAMPs-Damage Associated Molecular Patterns




**Plasma samples of kids with HIV+ were investigated for DAMPS (mtDNA). Pro-inflammatory molecules (e.g. IL6, IFN-g) were found to positively correlate with DAMPs only in Dead-HIV+ group suggesting endogenous damage conversely to external one.**

# Conclusion

**HIV+ children who prematurely died demonstrated higher concentrations of inflammatory molecules at enrollment, compared to severely ill HIV+ who survived.**

# Future directions

**Confirm and implement our findings in other international cohorts**

ECHILBRIST

**N=300**

IDEAL

Immune Development in Early Life

**N=240**

SEATTLE

WASHINGTON

FEBRUARY 20th, 2023

HYATT REGENCY SEATTLE

06.00 pm - 07.45 pm

ROOM 602 - NOOKSACK

Bambino Gesù
OSPEDALE PEDIATRICO

Università di Roma
Tor Vergata

EPICAL
The HIV CLINICAL & EXPERIMENTAL PLATFORM

earth

CROI

# Thank you for the attention!

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OS 2023

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