



EuroSIDA

Adapting HIV cohorts to future challenges in HIV research

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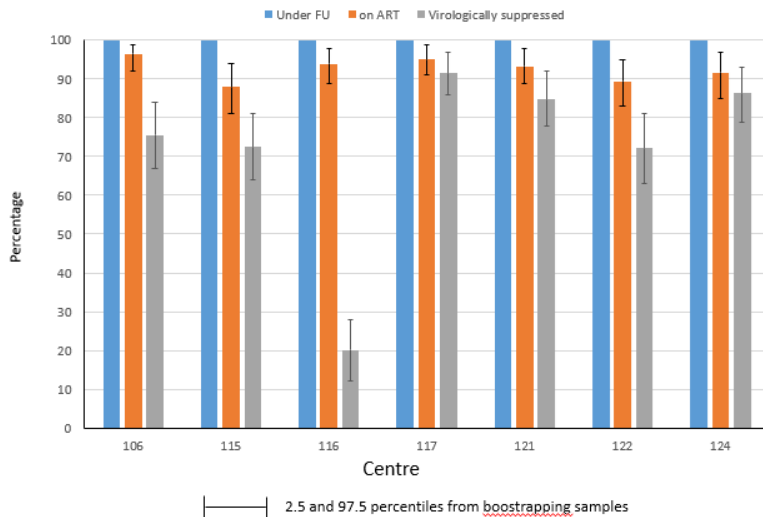
European AIDS Clinical Society Conference, Basel, 2019

- Quality-of-care for
 - HIV
 - Co-morbidities
 - Co-infections
- Emerging health challenges
- Public health
- Biological pathways to disease – precision medicine
- Problem X

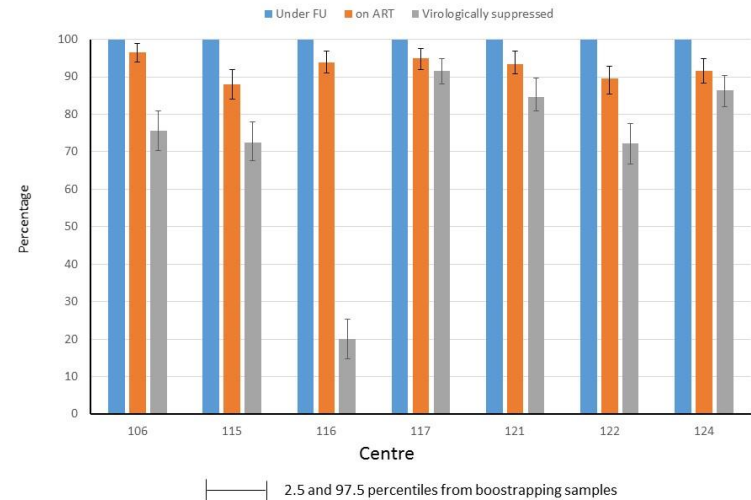
- Indicators of good care
 - Capture key features
 - e.g. ART initiation and HIV-RNA suppression rates
 - Objective and ascertainable
 - Allows for broad implementation
- Benchmark clinics
 - Optimal and suboptimal care
 - Focused training
- By definition, the more clinics in joined cohort, the better the utility of output
- ECDC, EACS, & BHIVA
 - developing an European Standards of HIV Care document

Data on 100 random patients required to establish @ the clinic level a *reliable* "right side" of the continuum of care*

B: sample size 100; 1,000 repetitions



C: sample size 250; 1,000 repetitions

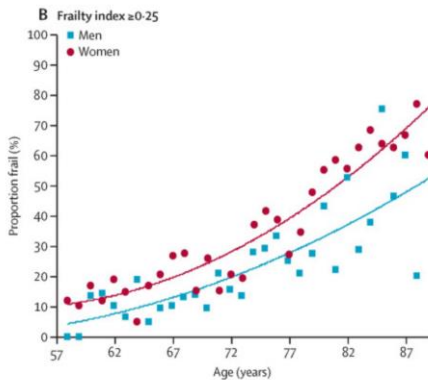


*Among those under follow-up
% on ART & % suppressed

RESPOND: Raben et al: EACS PS9/2
Friday, San Francisco Room, 10.45

Online tool tbd

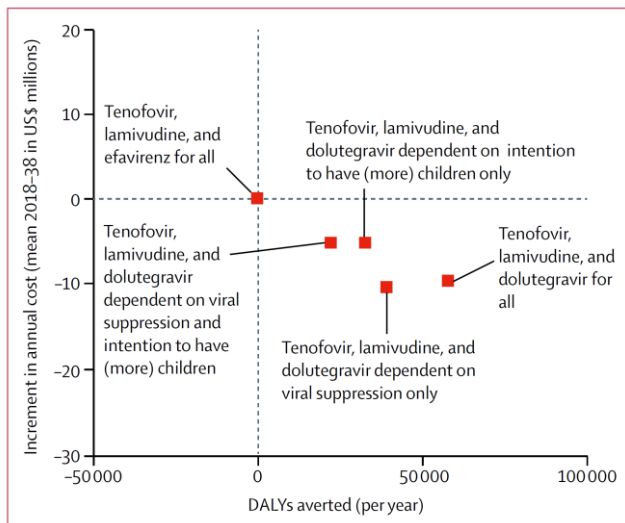
- Are we focused on the "right" health issues ?
- HIV+ population is aging
 - How do aging process interact with HIV-associated immune dysfunction ?
- New ARV's
 - New drugs – new problems !
- Long-term impact from ARV's
 - Unknown – requires rigorous endpoint ascertainment



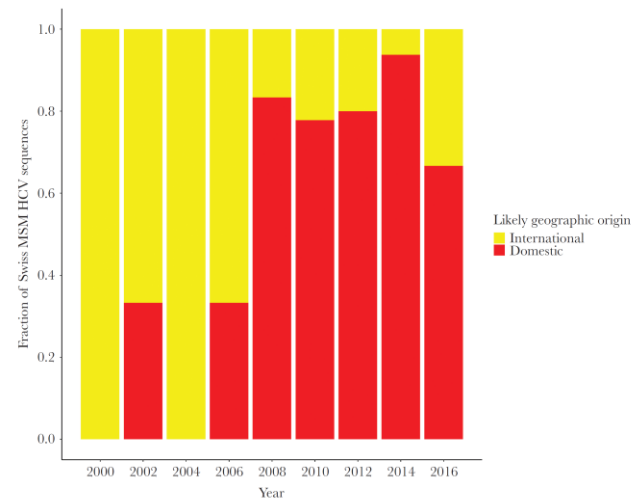
Faifty by age
Hoogendijk et al, Lancet 2019

- Transmission patterns
- Transmission clusters
- Failure of preventive interventions
- Assumptions for transmission modelling

Cost eff: DTG vs EFV (+TDF/3TC)



Domestic vs international transmission of HCV:



PrEPaRE study: PrEP use in people newly diagnosed with HIV

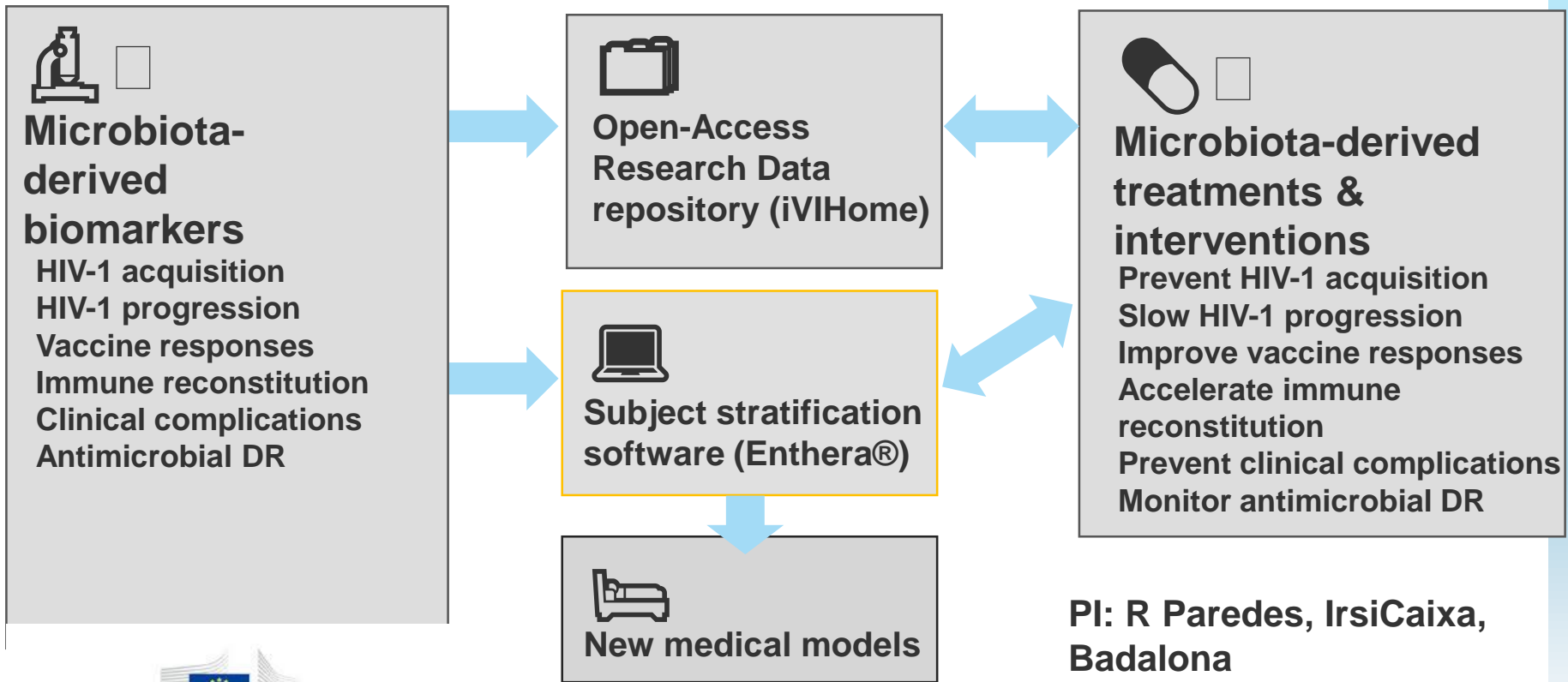
- **Aim:** To assess prevalence of HIV drug resistance before ART initiation in people newly diagnosed with HIV and exposed to PrEP
- **Type of study:** observational cross-sectional study (data collected prospectively)
- **Eligibility criteria for participants:** people newly diagnosed with HIV (first visit within 3 months from the date of diagnosis) who report previous PrEP use
- **Process:** Participants will be invited to self-complete a questionnaire at the first visit if possible, and at the same time, the health care provider will fill in a CRF
- **Stage of the study:**
 - CHIP sponsor; project approved by RESPOND steering committee
 - 70+ clinics globally to participate; ethical processes ongoing

Biological pathways to disease – precision medicine

- New technologies (..omics) allows us to understand the underlying biological processes leading to poorer health outcomes
 - Come to Telenti plenary talks tomorrow morning
- Aim: to refine ability to identify persons at risk of adverse outcomes
- Requires:
 - unselected HIV cohorts,
 - comprehensive banking of relevant biological material
 - ethical permission to analyse material
 - Carefully ascertained outcomes

MISTRAL: new cohort

Microbiome-based stratification of individuals at risk of HIV-1 acquisition, chronic clinical complications, antimicrobial drug resistance, and unresponsiveness to therapeutic HIV-1 vaccination

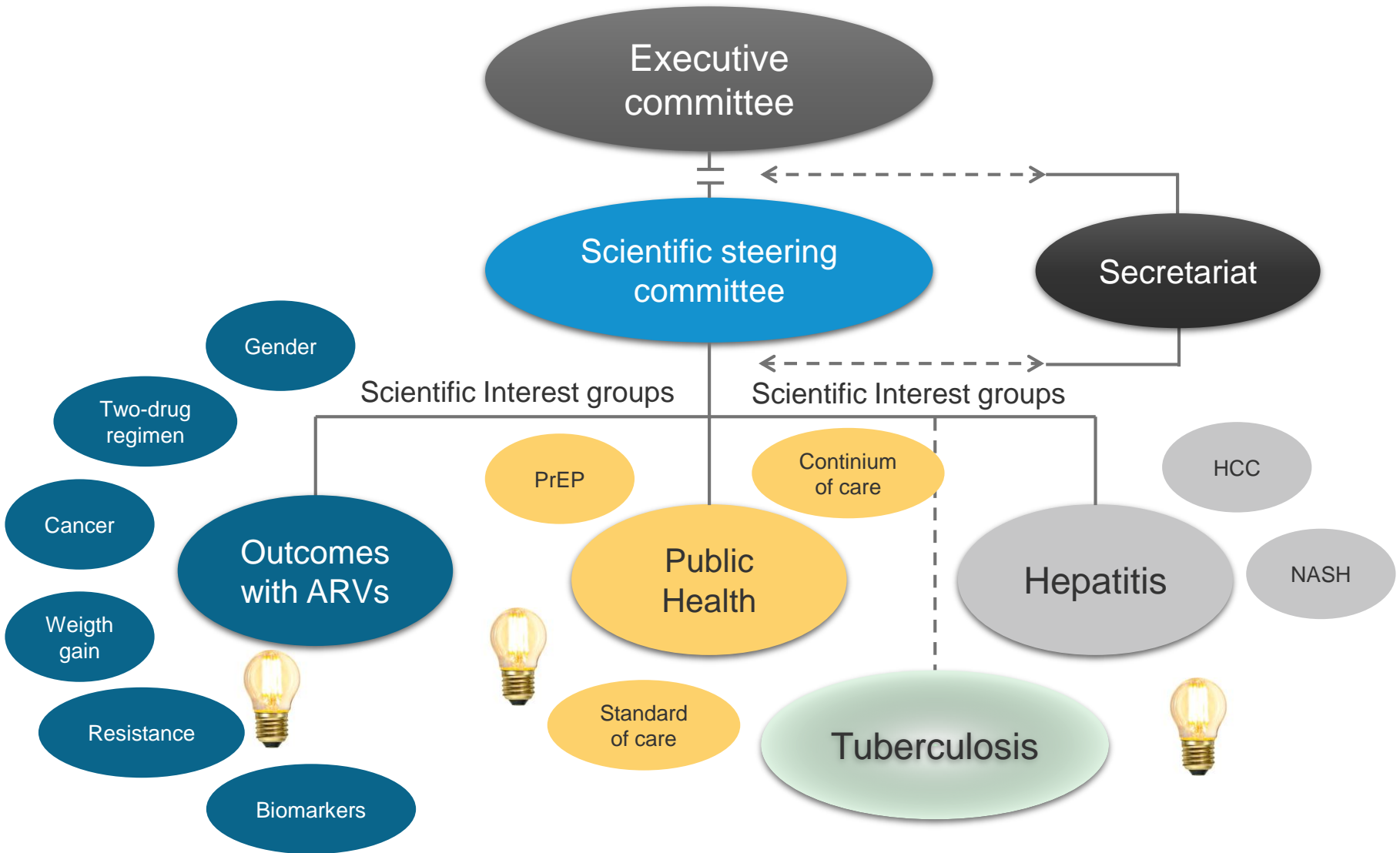


PI: R Paredes, IrsiCaixa,
Badalona
MISTRAL-HIV.eu

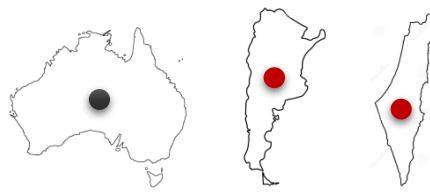
Problem X

- We have been surprised many times
- High likelihood this will continue
- By definition, nature of problem is presently unknown
- Ongoing cohort infrastructure allows
 - Identify emerging problem (e.g. classify causes of death)
 - Quantify problem and risk factors hereof
 - Assess impact from interventions aimed at reducing problem

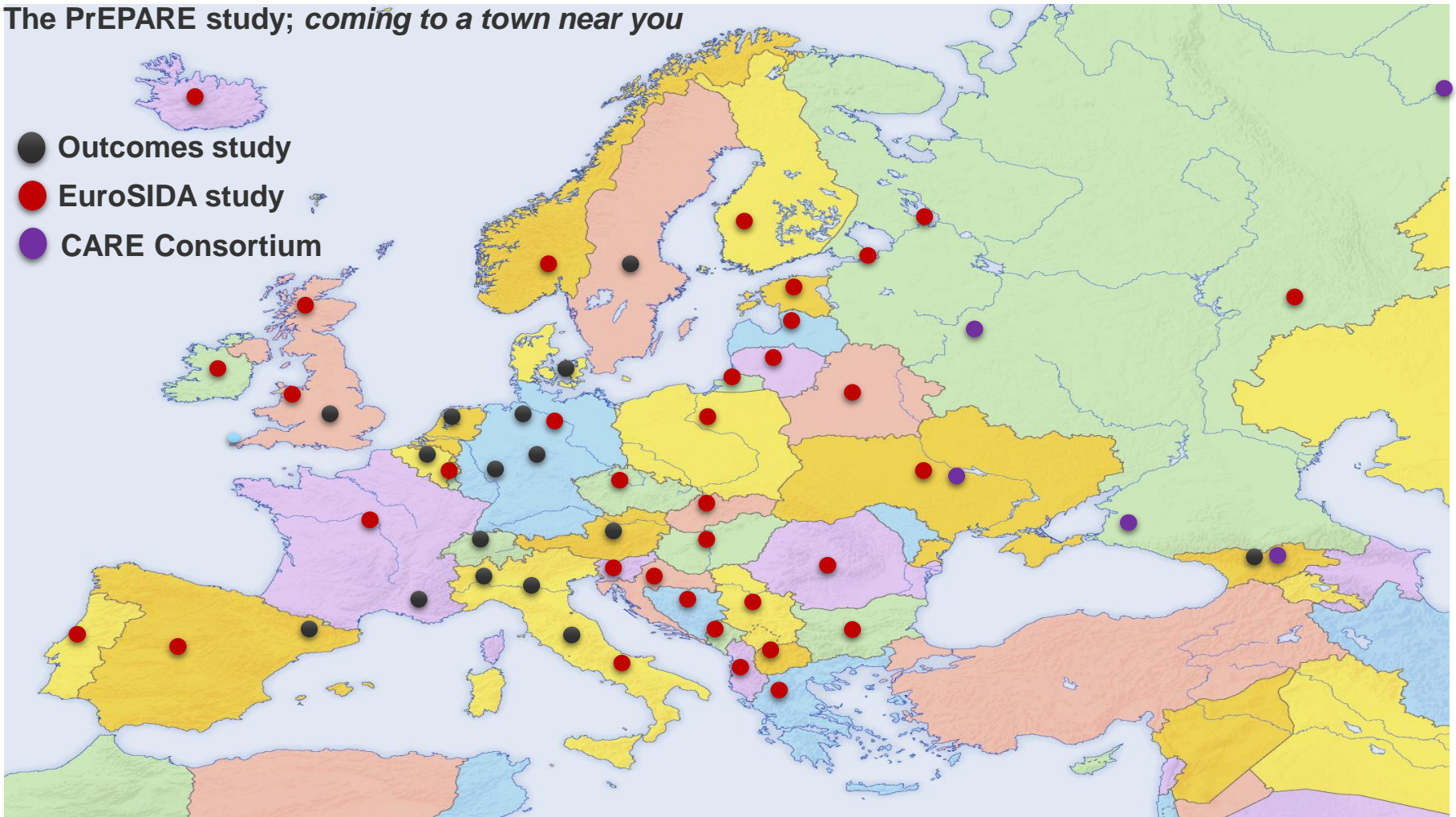
RESPOND



RESPOND



The PrEPARE study; *coming to a town near you*



Neesgaard, Peters, Ryom, Mocroft, et al



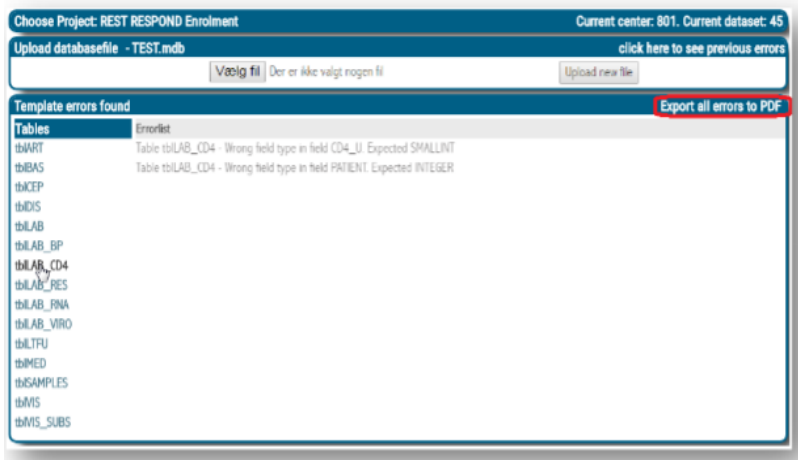
Two principal options for data transfer:

Database-to-database

- RESPOND electronic submission tool (**REST**)

Manual data entry

- Research Electronic Data Capture (**REDCap**)



Log In



Please log in with your user name and password. If you are having trouble logging in, please contact [CHIP - Centre for Health & Infectious Disease Research](#).

Username:

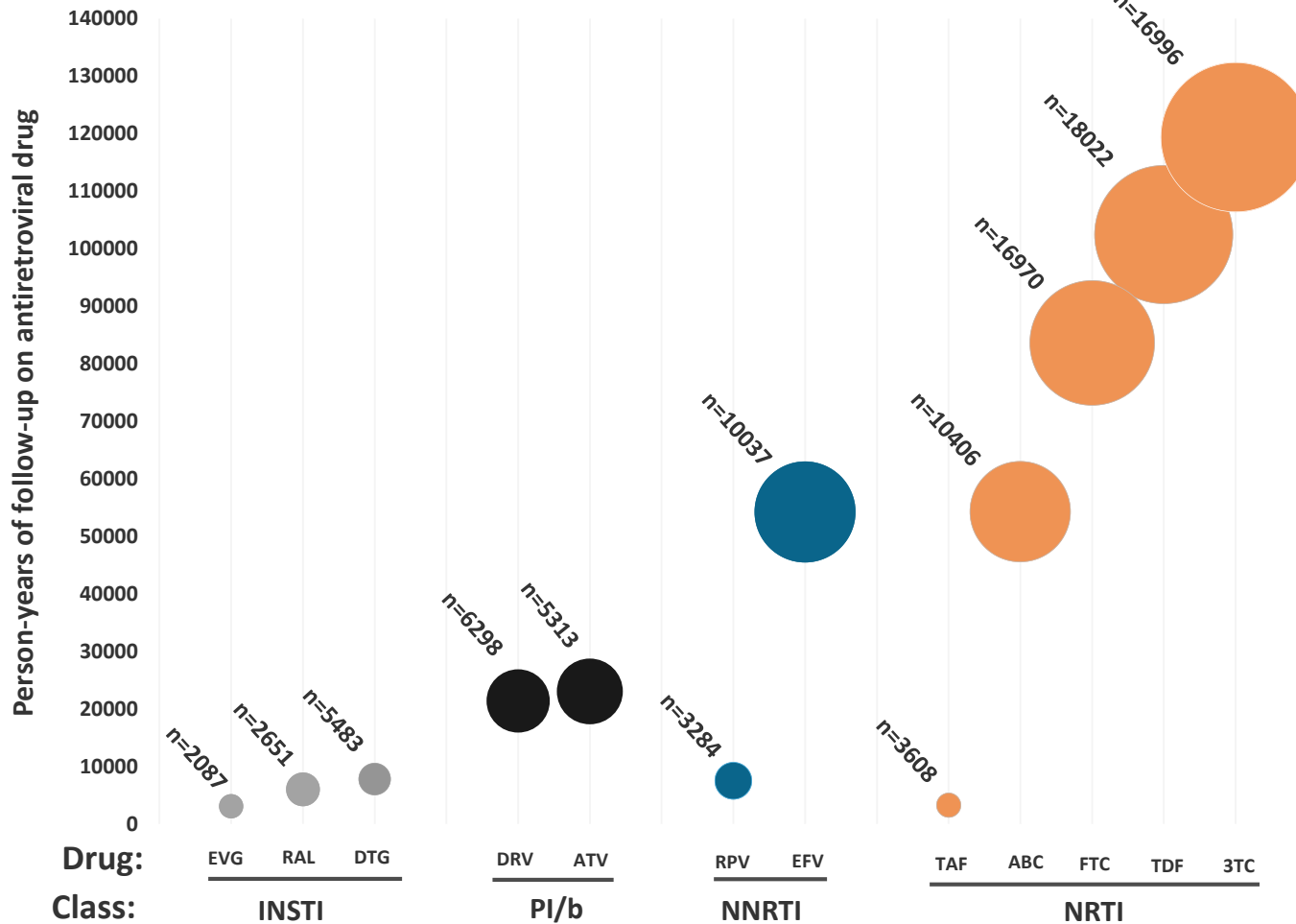
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Clinical events and drug exposure

Antiretroviral drug exposure

Clinical events



Malignancies
361 (50%)

Cardiovascular disease
168 (24%)

ESLD
45 (6%)

Fractures
131 (18%)

ESRD
11 (2%)

Bubble size reflects the PYFU exposed to the specific antiretroviral drug, calculated from last clinical visit, with number above each bubble indicating the number of individuals exposed.

ACKNOWLEDGEMENTS

Cohort principal investigators:

De Wit (St. Pierre, Brussels), R. Zangerle (AHICOS), M. Law (AHOD), F. Wit (ATHENA) G. Wandeler (EuroSIDA), C. Stephan (Frankfurt), N. Chkhartishvili (IDACIRC), C. Pradier (Nice HIV cohort), A. d'Arminio Monforte (ICoNA), C. Mussini (Modena), J. Casabona & J.M. Miro (PISCIS), H. Günthard (SHCS), A. Sönnnerborg (Swedish InfCare), C. Smith (Royal Free HIV cohort), A. Castagna (St. Rafael, Milano), J.C. Wasmuth (Bonn, HIV Cohort) and J.J. Vehreschild (Cologne, HIV cohort).

Cohort Coordinator, operational team members and data management:

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RESPOND Scientific Steering committee: J. Lundgren (co-chair), H. Günthard (Co-Chair), C. Mussini, R. Zangerle, A. Sönnnerborg, V. Vannappagari, J.C. Wasmuth, M. Law, F. Wit, R. Haubrich, H. Bucher, C. Pradier, H. Garges, C. Necsoi, G. Wandeler, C. Smith, J.J. Vehreschild, F. Rogatto, C. Stephan, N. Chkhartishvili, A. d'Arminio Monforte, A. Bruguera and A. Castagna.

RESPOND Executive committee:

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Scientific interest group moderators:

L. Ryom, A. Mocroft (Outcomes with antiretroviral treatment), L. Peters, J. Rockstroh (Hepatitis), D. Raben and J. Kowalska (Public Health), O. Kirk, A. Philips, V. Cambiano and Jens Lundgren (PrEP)

Members of the scientific interest group:

Hepatis, Public Health, Outcomes with antiretroviral treatment, PrEP, Resistance

Statisticians:

A. Mocroft and L. Greenberg

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