

**neatid**

The European treatment  
network for HIV, hepatitis  
and global infectious diseases

## **HIV Glasgow 2022**

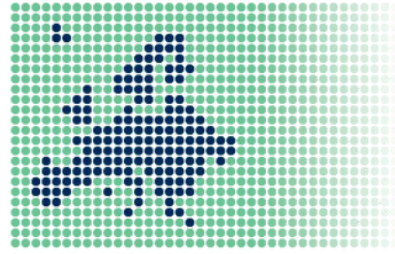
### NEAT ID Symposium and Updates

Glasgow

23rd OCTOBER 2022

# AGENDA

| SPEAKER   | SEGMENT                           |
|---|-----------------------------------|
| Prof. Christine Katlama and Prof. Carlo Giaquinto | Welcome                           |
| Prof. Anton Pozniak                               | Introduction Slides               |
| Prof. Stefano Vella                               | NEAT ID Background                |
| Prof. Jean-Michel Molina                          | PrEP Survey                       |
| Dr Stefano Rusconi                                | WISARD w48 Data                   |
| Prof. Marta Boffito                               | PIONEER                           |
| Dr Esteban Martinez                               | NEAT 22 Sub Studies – Weight Gain |
| Prof. Georg Behrens                               | NEAT ID Studies and Publications  |
| Prof. Stephane De Wit                             | NEAT ID New Studies               |
| Prof. Jurgen Rockstroh                            | NEAT ID Integration Grants        |
| Prof. Anton Pozniak                               | Closing                           |



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## OUR MISSION

*To enable and conduct Clinical Research on  
HIV, Hepatitis and Emerging Global Infectious  
Diseases*

# WHAT NEAT ID DO

✓ 7 fully recruited Studies



8 actively recruiting Studies



1 Study in set up



2 Studies in pipeline

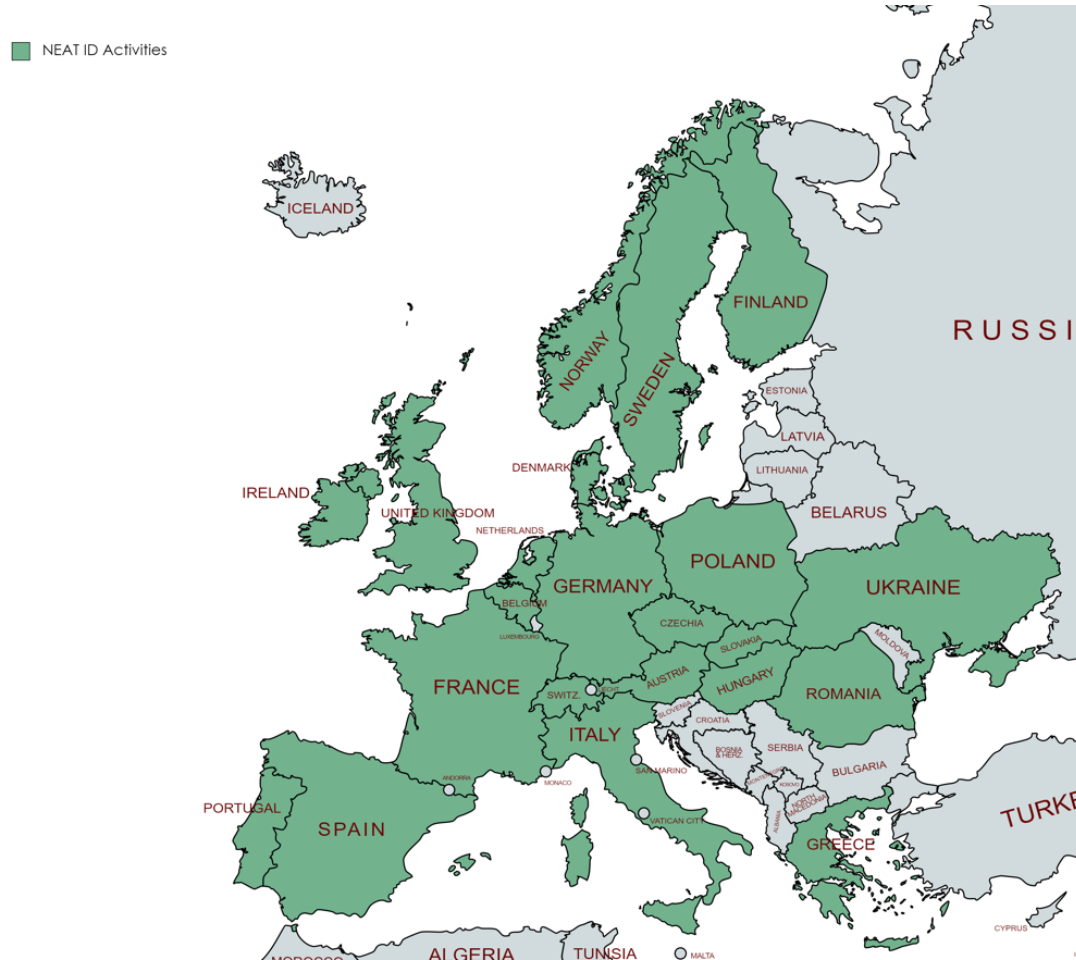


Current Study activity expected out to 2025



Award NEAT ID “Integration” Grants

# NEAT ID Network



With further reach in:

- USA
- Canada
- Brazil
- Mexico
- Chile
- Thailand
- Tanzania
- South Africa
- Argentina

# NEAT ID IN NUMBERS

Over 5000  
patients  
recruited

3 Covid-19  
Studies  
completed

4 HIV Studies  
completed

7 active HIV  
Studies

Provided 8  
directly  
funded Grants

More than 20  
countries  
involved

€30 Million in  
funding to  
sites

Over 150 sites  
involved

# PARTNERS



# GOVERNANCE

Anton Pozniak



President

Stephane De Wit



Vice President

Nikos Dedes



Treasurer

Christine Katlama



Jürgen Rockstroh



Carlo Giaquinto



Stefano Vella



Andrzej Horban



Abdel Babiker



Jean-Michel Molina



Georg Behrens



Francois Raffi



Esteban Martínez

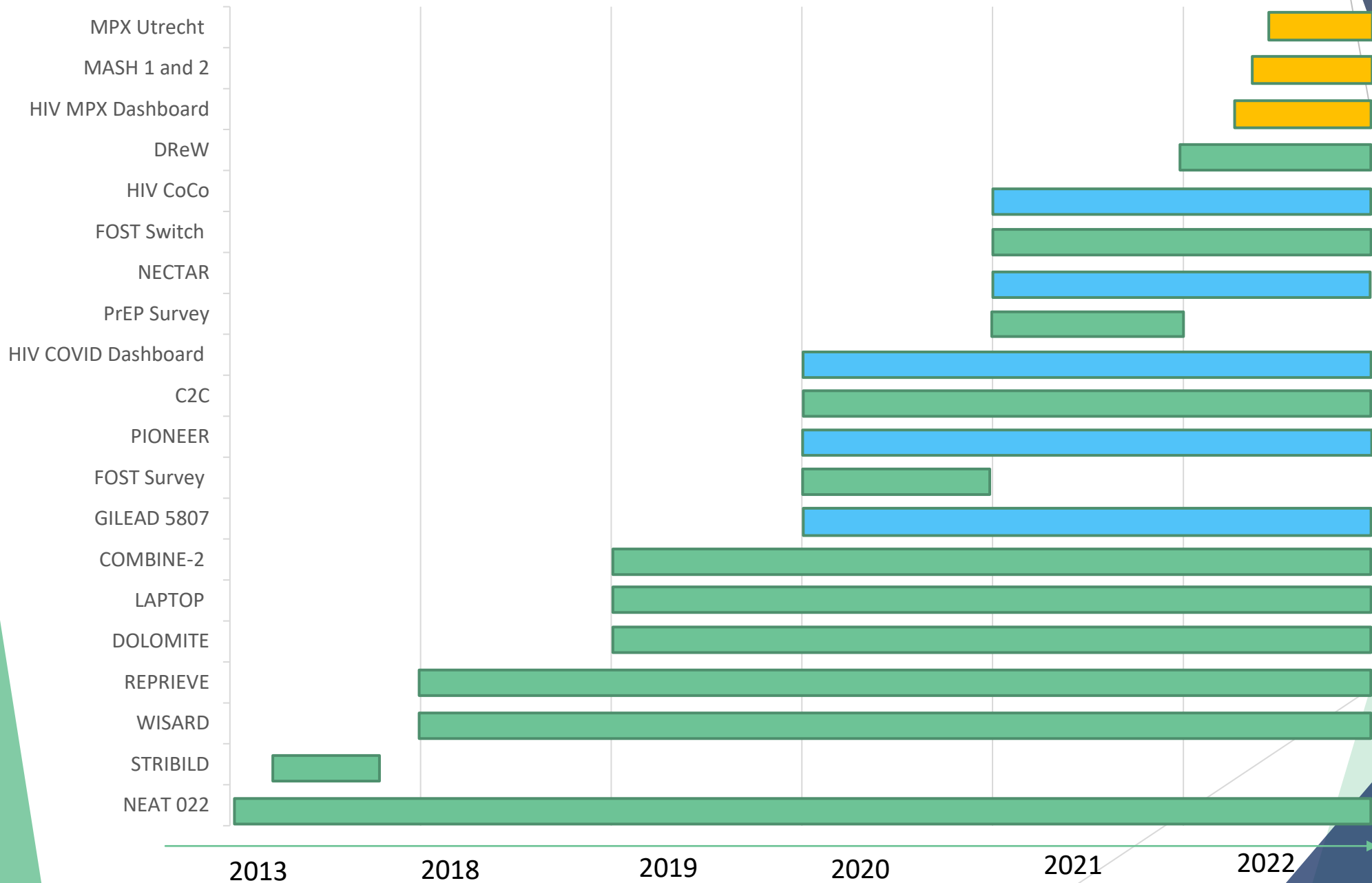




HIV

COVID

MPX



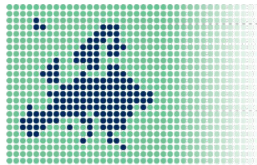
# NEAT ID – A History

Presented by: Prof. Stefano Vella

From



To



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The European treatment network for HIV, hepatitis and global infectious diseases

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## EUROPEAN AIDS TREATMENT NETWORK

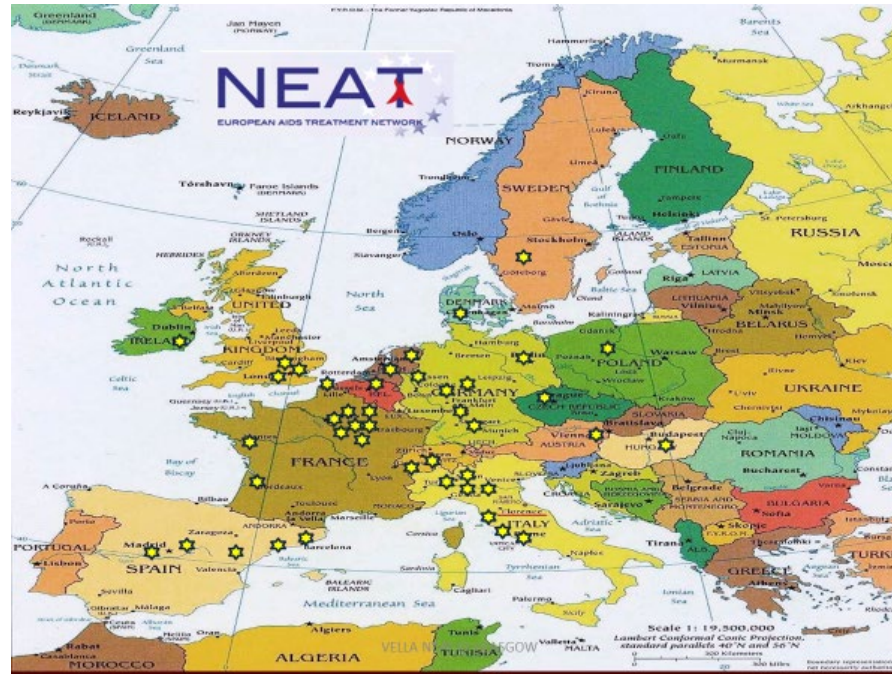
Project no: LSHP-CT-2006-037570

Instrument: Network of Excellence

Thematic Priority: FP 6 - Life sciences, genomics and biotechnology for health  
"Integrating and strengthening the European Research Area"

Start date of project: 1st of February 2007 / Total duration: 60 months

2007 - 2011



# The NEAT Operational structure was an activity-focused integrated model organised in 4 major WP areas

## WP1 – Network Functioning

Activity areas:

- Management and Governance
- Fundraising
- External networking
- Public website and IT
- Quality

## WP2 – Clinical Research

Activity Areas:

- NEAT001 ANRS 143 (Governance, Development & management)
- Data Analysis
- Trial Legal Sponsorship
- NEAT 001 sub-studies
- NEAT Hepatitis Cohort Network

## WP3 – Integration of Research

Activity areas:

- Integration Grants (small, intensive cross partner/ cross country clinical studies)

## WP4 – Education and Training

Activity areas:

- Focused on Clinical Research training courses
- PhD and master programmes
- Training exchange programmes



**GENERAL ASSEMBLY  
7<sup>TH</sup> AND 8<sup>TH</sup> JUNE 2012**

- NEAT went far beyond the scope of a Network of Excellence
- Tangible products with relatively small amount of funds
- Ability to find external co-funding
- Real Integration among partners
- Creation of a Functional European Clinical Research Network
- Relevant number of high quality publications

*Where NEAT should / could go ?*

*Stefano Vella & Anton Pozniak*

## RESULTS

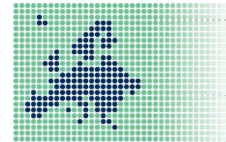
NEAT Activities resulted in an impressive record of publications in peer reviewed journals as well as presentations at international conferences overall, NEAT produced:

- 155 scientific articles in international peer reviewed journals
- 28 oral communications at international conferences
- 91 posters and abstracts
- 30 educational videos put online to the public website
- 12 grey literature publications

In response to the Commission decision not to fund HIV  
research

under the future European Framework Programs

(with the exception of EDCTP)



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The European treatment  
network for HIV, hepatitis  
and global infectious diseases

has been founded in Brussels in December 2012

Répertoire n°

Jean-Pierre MARCHANT Notaire - Notaris  
480 avenue Brugmannlaan - 1180 Bruxelles - Brussel  
TVA N° 0833.481.408

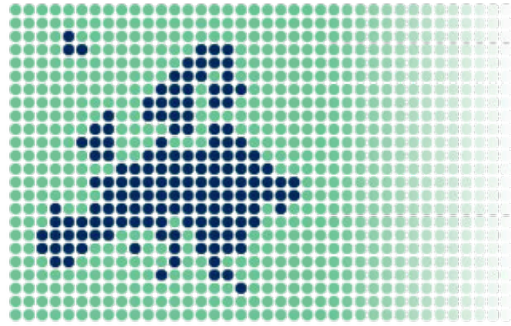
"NEAT"  
Fondation d'utilité publique  
A 1000 Bruxelles

L'AN DEUX MILLE DOUZE.

Le

Devant Nous, Maître Jean-Pierre MARCHANT, notaire de  
résidence à Uccle-Bruxelles, en notre étude, avenue Brugmann 480.

ONT COMPARU



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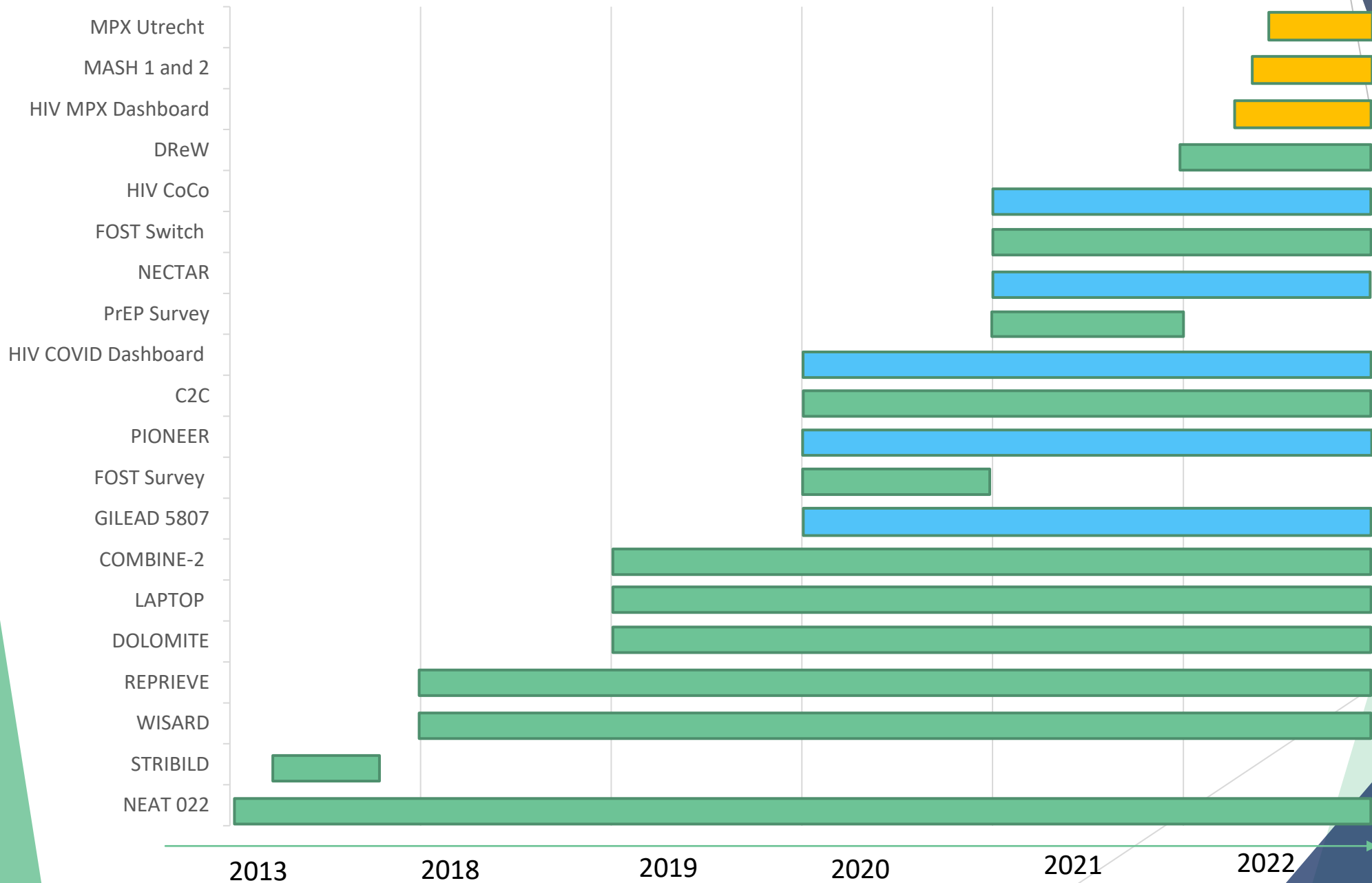
*Where We Are Now*



HIV

COVID

MPX



# NEAT ID

## Oral Presentations

# PIONEER

A randomised controlled trial of early intervention in patients hospitalised with COVID-19: Favipiravir versus Standard of Care

Presented by: Prof. Marta Boffito

*Christopher M Orton, Pallav L Shah, Beatriz Grinsztejn, Gavin C Donaldson, Brenda Crabtree Ramírez, James Tonkin, Breno R Santos, Sandra W Cardoso, Andrew I Ritchie, Francesca Conway, Maria P D Riberio, Dexter J Wiseman, Anand Tana, Bavithra Vijayakumar, Cielito Caneja, Craig Leaper, Bobby Mann, Anda Samson, Pankaj K Bhavsar, Marta Boffito, Mark R Johnson, Anton Pozniak, Michael Pelly*

Dr Christopher Orton,  
Consultant Respiratory Physician,  
Royal Brompton Hospital, UK

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Co-Sponsored  
by

  
Chelsea and Westminster Hospital  
NHS Foundation Trust

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Funded by  LifeArc

## STUDY RATIONALE

- SARS-CoV-2, has caused the COVID-19 global outbreak. Presently, more than 6,400,000 attributable deaths reported worldwide
- Self-limiting respiratory symptoms, to fulminant multiorgan failure and death
- High mortality rates have related to the saturation of healthcare resources, demonstrating the clear and unmet need for an early intervention that reduces the intense utilisation of such facilities
- Re-purposing of existing drugs is an immediate option and far faster than developing new therapeutics

# FAVIPIRAVIR

- Pyrazinecarboxamide derived, nucleic acid analogue that selectively targets the RNA-dependent RNA polymerase utilised in viral RNA synthesis.<sup>4</sup>
- Broad spectrum activity against multiple families of RNA viruses, including a wide range of influenza viruses

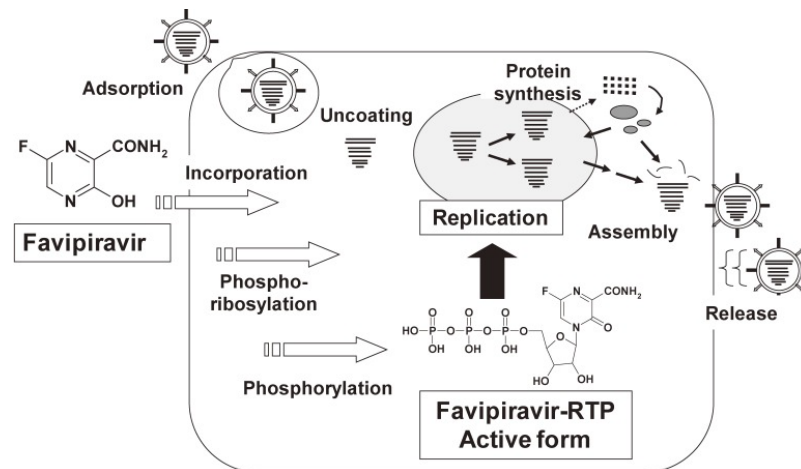
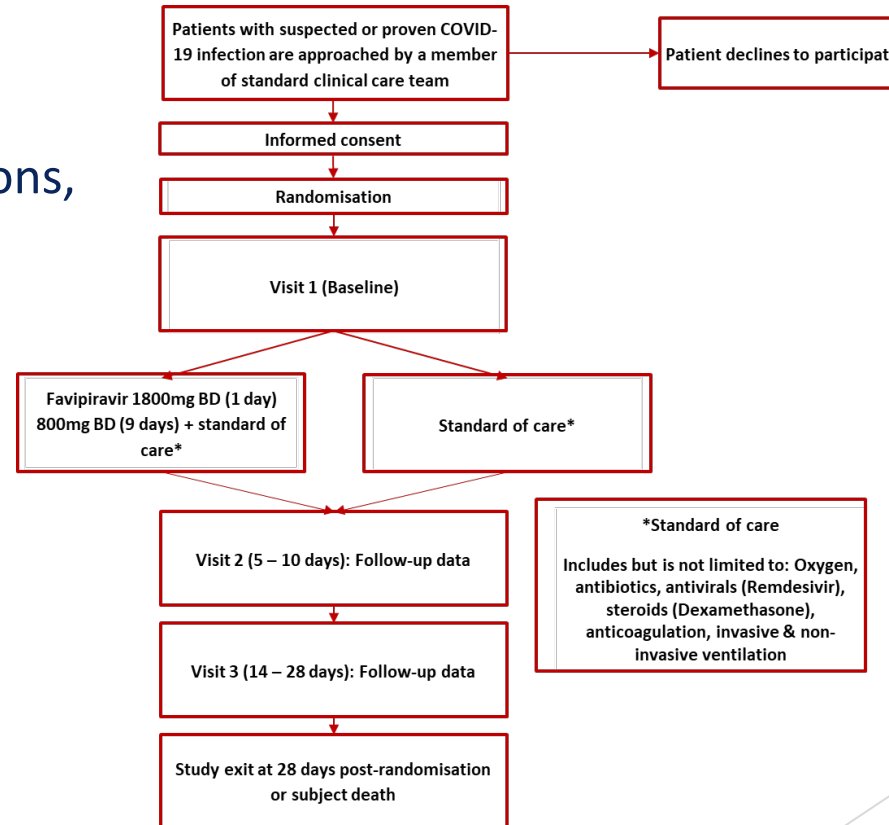


Figure 1. Favipiravir: activation and mechanism of action

## METHODS

- Prospective, open label, multi-centre, randomized 1:1, controlled trial
- Adults with capacity, hospital admissions, proven or suspected COVID-19
- UK, Brazil, Mexico
- 503 participants
- May 2020 - May 2021
- Duration of treatment: 10 days
  - Day 1: 1800mg BD
  - Day 2 to 10: 800mg BD
- 28-day follow-up period
- NCT: 04373733



# OBJECTIVES

## Primary Objective

To determine whether early intervention with favipiravir reduces the time to significant improvement in clinical status in patients with COVID-19

## Secondary Objectives

To assess whether early intervention with favipiravir improves mortality in patients with COVID-19

To determine whether early intervention with favipiravir reduces resource utilisation in patients with COVID-19

| Category |   |
|----------|---|
| 1        | Not hospitalised with resumption of normal activities                 |
| 2        | Not hospitalised, but unable to resume normal activities              |
| 3        | Hospitalised, not requiring supplemental oxygen                       |
| 4        | Hospitalised, requiring supplemental oxygen                           |
| 5        | Hospitalised, requiring nasal high-flow oxygen therapy                |
| 6        | Hospitalised, requiring ECMO, invasive mechanical ventilation or both |
| 7        | Death   |

## RESULTS

|  | All (n=502)      | Favipiravir (n=251) | SC (n=248)      |
|--|------------------|---------------------|-----------------|
| Male sex: (%)  | 302 (61%)        | 142 (57 %)          | 160 (65 %)      |
| Age (years ± SD)                                     | 58.9 ± 15.3      | 59.2 ± 16.3         | 58.6 ± 14.2     |
| Age < 60 years of age                                | 248 (49.4)       | 120 (47.8)          | 127 (51.2)      |
| Ordinal score (median, IQR)                          | 4 (4 to 4)       | 4 (4 to 4)          | 4 (4 to 4)      |
| Hospitalised, not requiring supplementary oxygen (%) | 87 (17.3%)       | 40 (16 %)           | 47 (19 %)       |
| Hospitalised, requiring supplementary oxygen (%)     | 376 (74.9%)      | 190 (76 %)          | 183 (74 %)      |
| Hospitalised, requiring HFNC and/or non-IMV (%)      | 39 (7.8%)        | 21 (8%)             | 18 (7 %)        |
| White blood count (10 <sup>9</sup> /L)               | 7.2 (5.2-9.7)    | 7.2 (4.9-9.6)       | 7.2 (5.3-9.8)   |
| Neutrophil count (10 <sup>9</sup> /L)                | 5.7 (3.8-8.0)    | 5.5 (3.7-7.9)       | 5.7 (4.0-8.1)   |
| Lymphocytes (10 <sup>9</sup> /L)                     | 0.80 (0.6-1.2)   | 0.80 (0.60-1.2)     | 0.85 (0.60-1.2) |
| C-reactive protein (mg/L)                            | 21.4 (10.9-83.9) | 26.2 (11.4-81.7)    | 18.8 (9.1-83.9) |
| Time from admission to randomisation (days)          | 0.91 (0.7-1.3)   | 0.9 (0.7-1.2)       | 0.9 (0.7-1.3)   |
| Time from symptom onset to randomisation (days)      | 8.9 (6.2-11.1)   | 8.9 (6.2-11.0)      | 8.9 (6.2-11.5)  |



# RESULTS

Consort diagram

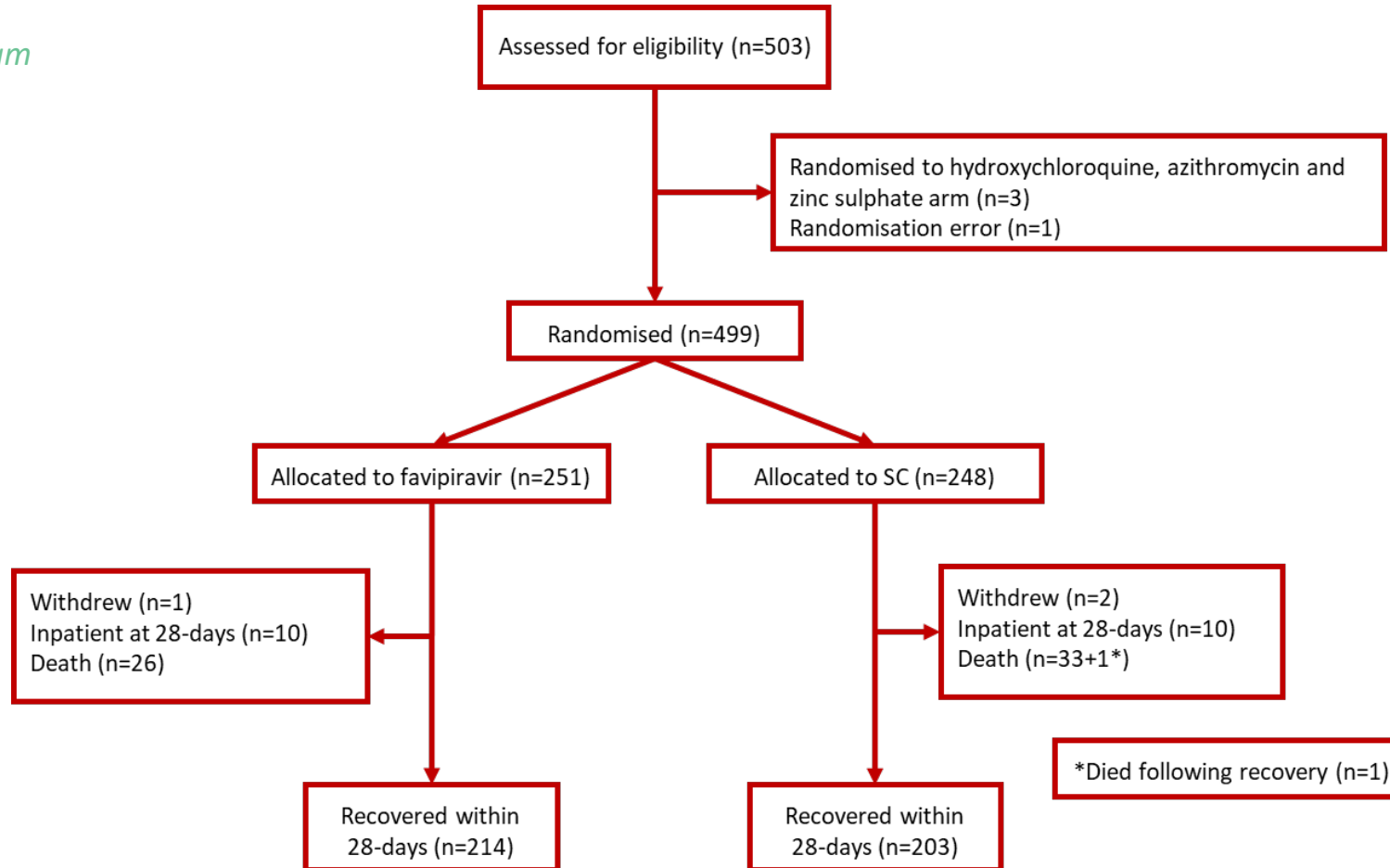
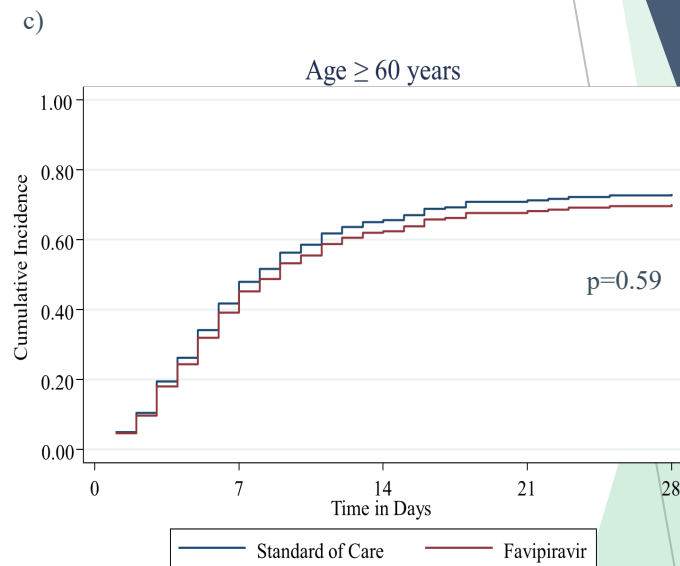
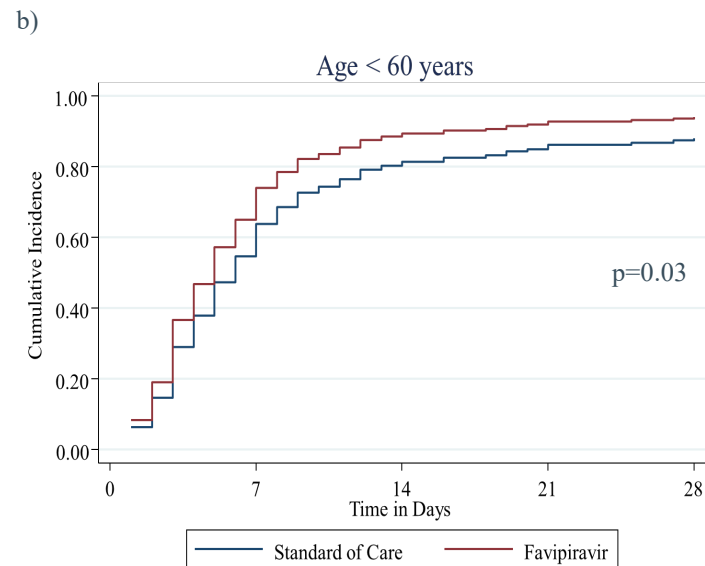
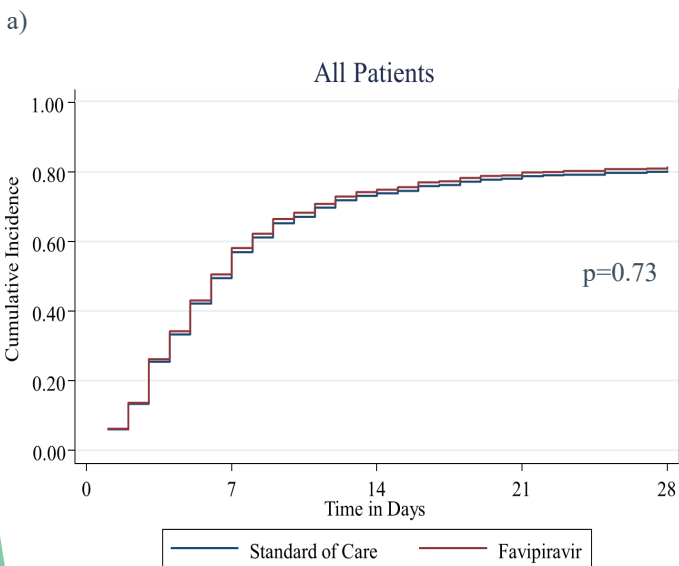


Figure 5. Consort diagram

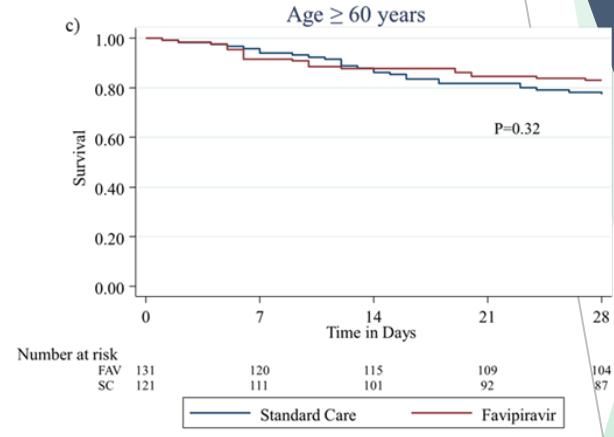
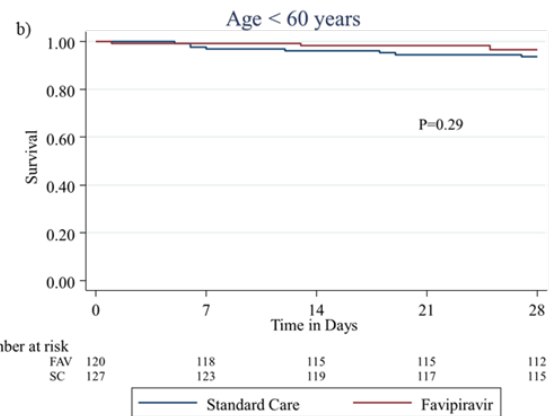
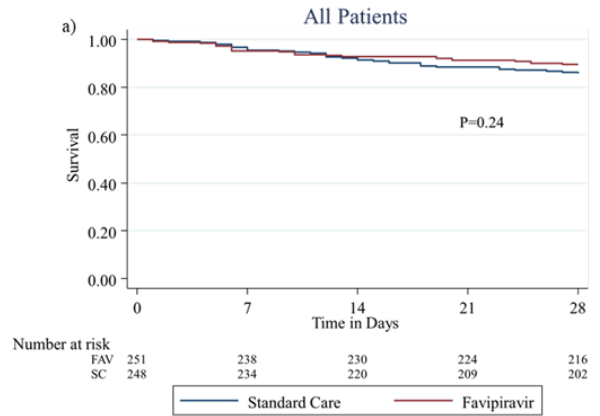
# PRIMARY OBJECTIVE: TIME TO RECOVERY



# SECONDARY OBJECTIVES: SURVIVAL AND MECHANICAL VENTILATION FREE SURVIVAL

Kaplan-Meier curves in patients receiving favipiravir and SC, and SC alone, (a & d) for all patients; (b & e) age < 60 years; (c & f) age ≥ 60 years

Survival



Mechanical ventilation free survival

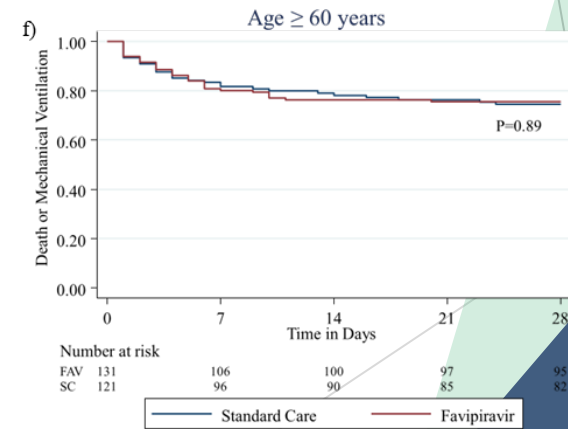
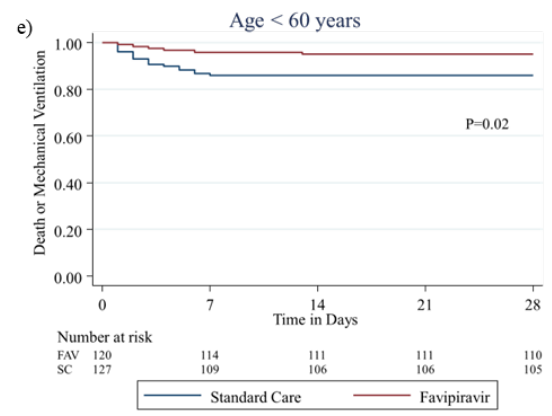
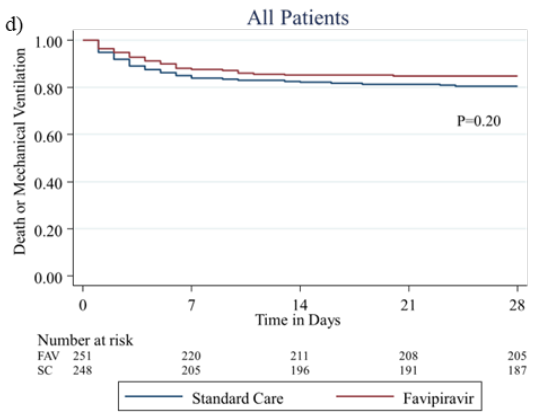


Figure 7. Kaplan-Meier curves in patients receiving favipiravir and SC, and SC alone, (a & d) for all patients; (b & e) age < 60 years; (c & f) age ≥ 60 years

## CONCLUSIONS

- Favipiravir did not improve pre-specified outcomes in patients hospitalised with COVID-19
- Favipiravir may have a beneficial effect on recovery, and mechanical ventilation free-survival in patients under 60-years of age, hospitalised with COVID-19
- Wider evaluation of anti-viral medications, their age-stratified effects and the potential for combination therapy should be considered in COVID-19

OUTPUT

*Is in press with the  
Lancet Respiratory*

PIONEER

## REFERENCES

- ▶ 1. World Health Organisation. WHO Coronavirus (COVID-19) Dashboard. 2022. <https://covid19.who.int/> (accessed 15th August 2022)
- ▶ 2. Huang C, Wang Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet (London, England)* 2020; 395(10223): 497-506.
- ▶ 3. Ji Y, Ma Z, Peppelenbosch MP, Pan Q. Potential association between COVID-19 mortality and health-care resource availability. *The Lancet Global Health* 2020; 8(4): e480.
- ▶ 4. Furuta Y, Komeno T, Nakamura T. Favipiravir (T-705), a broad spectrum inhibitor of viral RNA polymerase. *Proceedings of the Japan Academy Series B, Physical and biological sciences* 2017; 93(7): 449-63.
- ▶ 5. Shannon A, Selisko B, Le N-T-T, et al. Rapid incorporation of Favipiravir by the fast and permissive viral RNA polymerase complex results in SARS-CoV-2 lethal mutagenesis. *Nature Communications* 2020; 11(1): 4682.
- ▶ 6. Wang Y, Fan G, Salam A, Horby P, Hayden FG, Chen C, Pan J, Zheng J, Lu B, Guo L, Wang C. Comparative effectiveness of combined favipiravir and oseltamivir therapy versus oseltamivir monotherapy in critically ill patients with influenza virus infection. *The Journal of infectious diseases*. 2020 Apr 27;221(10):1688-98.

# NEAT ID PrEP Survey

HIV Pre-Exposure Prophylaxis Services, Provision, and  
Delivery in the NEAT ID Network

Presented by: Prof. Jean-Michel  
Molina

Sponsored and  
Funded by

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# HIV Pre-Exposure Prophylaxis Services, Provision, and Delivery in the NEAT ID Network

Geoffroy Liegeon<sup>1</sup>, Annie Duffy<sup>2</sup>, Caroline Brooks<sup>2</sup>, Hannah Honour<sup>2</sup>, Jean-Michel Molina<sup>1</sup> on behalf of the PrEP NEAT ID Study Group

<sup>1</sup>Infectious Diseases Department, Saint-Louis and Leprieux Hospital, Paris Cité University, Paris, France; <sup>2</sup>Research Organisation Kings Cross, London, UK



## Background:

Despite a decrease in the number of new HIV infections over the last decade, nearly 105,000 new HIV infections occurred in the European Union in 2020. To tackle the epidemic, HIV pre-exposure prophylaxis (PrEP) of HIV has been integrated into HIV prevention packages in many European Countries. However, few surveys have provided a comprehensive picture of PrEP use in Europe. The European treatment network for HIV, hepatitis, and global infectious diseases (NEAT ID) performs and coordinates clinical research on HIV/AIDS, COVID-19, and viral hepatitis across 342 sites in 11 European countries. We conducted a survey within the network to evaluate PrEP services implementation in European centers.

## Materials and Methods:

We designed a survey comprising 23 questions to derive information on the following areas: PrEP use, PrEP services provision, user profiles, structure and delivery of services, barriers to PrEP roll-out, and PrEP research experience. The questionnaire was sent via a secure electronic tool to centers involved in the NEAT ID Network. The survey started in November 2020 and closed on October 31st, 2021. The content was designed by the infectious diseases department of Saint-Louis hospital in Paris in collaboration with NEAT ID. The survey administration, data management, and analysis were carried out by Research Organisation (RO) Ltd on behalf of NEAT ID.

## Results:

- > 60 of 342 sites from 11 countries provided a response (18% response rate)
- > 45 sites provided PrEP services
- > All sites were in Western Europe, except two sites in Poland and one in Hungary
- > The responding sites represent a total of 27,416 users, rising by 1,381 new PrEP initiators each month

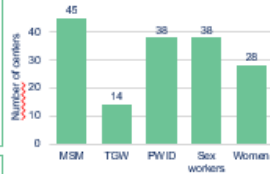


| Country      | Number of sites | Number of PrEP Users in Follow-up | New Monthly PrEP Initiators |
|--------------|-----------------|-----------------------------------|-----------------------------|
| Netherlands  | 1               | 25                                | 5                           |
| Hungary      | 1               | 100                               | 10                          |
| Italy        | 3               | 646                               | 15                          |
| Ireland      | 1               | 750                               | 41                          |
| Portugal     | 2               | 900                               | 55                          |
| Switzerland  | 4               | 1,340                             | 58                          |
| Belgium      | 2               | 2,272                             | 76                          |
| Germany      | 6               | 2,337                             | 146                         |
| Spain        | 8               | 3,800                             | 204                         |
| France       | 9               | 6,147                             | 320                         |
| UK           | 6               | 9,100                             | 340                         |
| <b>Total</b> | <b>45</b>       | <b>27,416</b>                     | <b>1381</b>                 |

## Conclusion:

PrEP is mainly implemented in Western European sites with a large and growing pool of PrEP users. These centers express a high interest in conducting research on PrEP and STIs. This supports the scope extension of research within NEAT ID toward HIV and STIs Prevention.

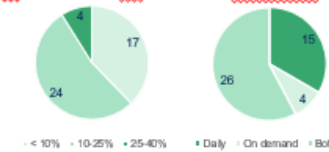
## Profile of PrEP Users Managed in Clinical Sites



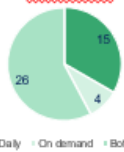
## Of the 45 sites that responded:

- > 17 (38%) provide PrEP for minors.
- > 36 (78%) involve community-based organization.
- > 24 (53%) use new medical technologies (mobile health...) to engage and retain individuals in PrEP.
- > 27 (60%) participate in communication campaigns for PrEP promotion.
- > 16 (35%) develop demedicalization processes with nurses (11/16), pharmacists (6/11), or key-populations (2/16).

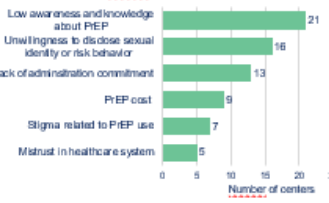
## Proportion of PrEP users lost to follow-up at one year in centers



## Most common PrEP dosing regimens



## Barriers to PrEP Roll-out



## Involvement of Clinical Sites in PrEP and STI Research



Legislation in PrEP Clinical Studies statement to participate in research on PrEP or STIs in NEAT ID

Title of poster: HIV Pre-Exposure Prophylaxis Services, Provision and Delivery in the NEAT ID Network  
Poster P016  
Presented at: HIV Glasgow 2022



## OBJECTIVES AND METHODS

### Study objective:

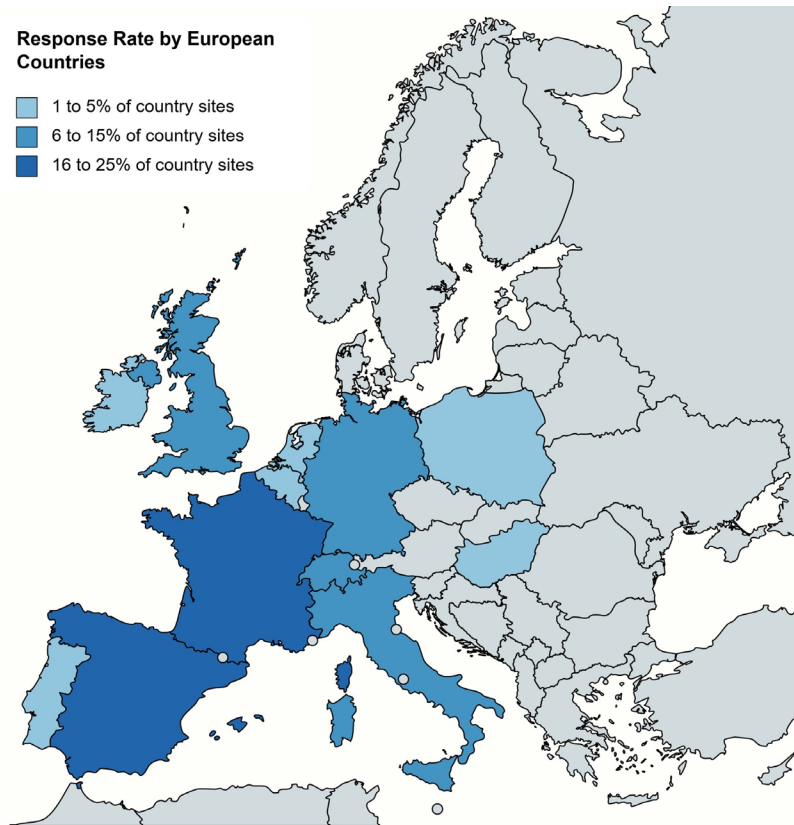
- To evaluate the implementation of PrEP services in European centers belonging to the European treatment network for HIV, hepatitis, and global infectious diseases (NEAT ID).

### Materials and Methods:

- A survey comprising 23 questions on the following areas: PrEP use, PrEP services provision, user profiles, structure and delivery of services, barriers to PrEP roll-out, and PrEP research experience.
- Sent via to 342 centers involved in the NEAT-ID Network across 15 countries in Europe.
- Responses collected from November 2020 to October 31<sup>st</sup>, 2021.

## PrEP SERVICES PROVISION

- 50 of 342 sites (15%) provided a response
- 45 sites provided PrEP services across 11 countries
- All sites were in Western Europe, except two sites in Poland and one in Hungary
- The responding sites represented a total of 27,416 users, with 1,361 new PrEP initiators each month

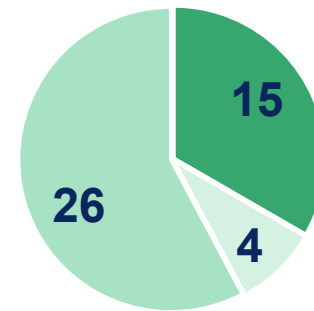
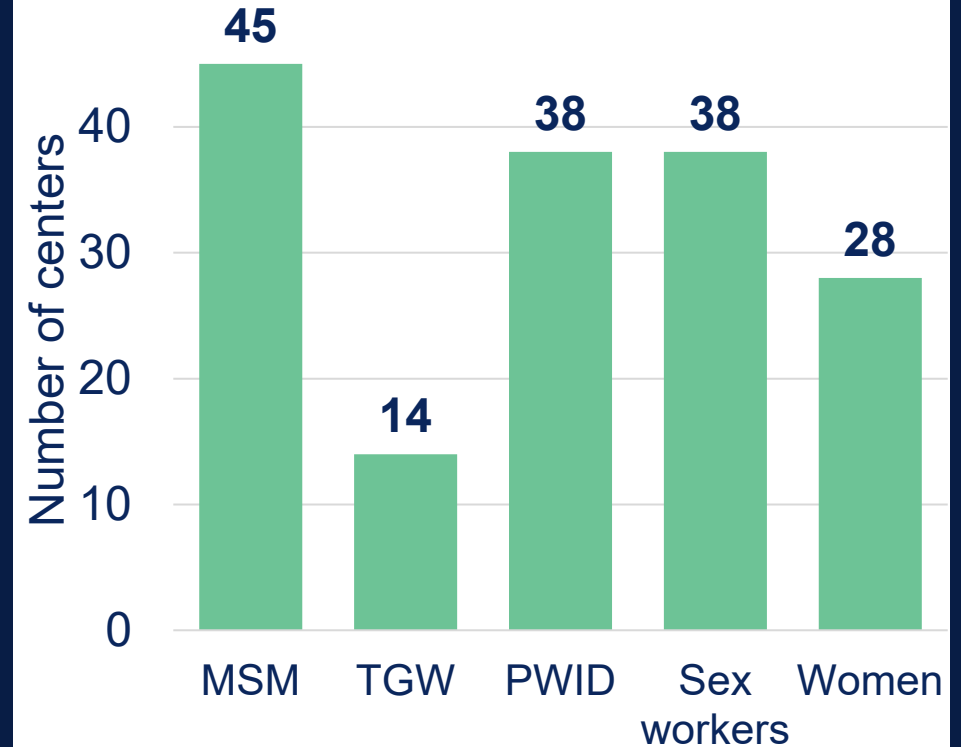


## PrEP PRACTISES

### Of the 45 sites that responded:

- 35 (78%) involved community-based organizations
- 24 (53%) use new medical technologies (mobile health...) to engage and retain individuals in PrEP
- 27 (60%) participated in communication campaigns for PrEP promotion
- 17 (38%) provided PrEP for minors
- 15 (33%) developed demedicalization strategies with nurses (11/15), pharmacists (5/11), or key-populations (2/15)

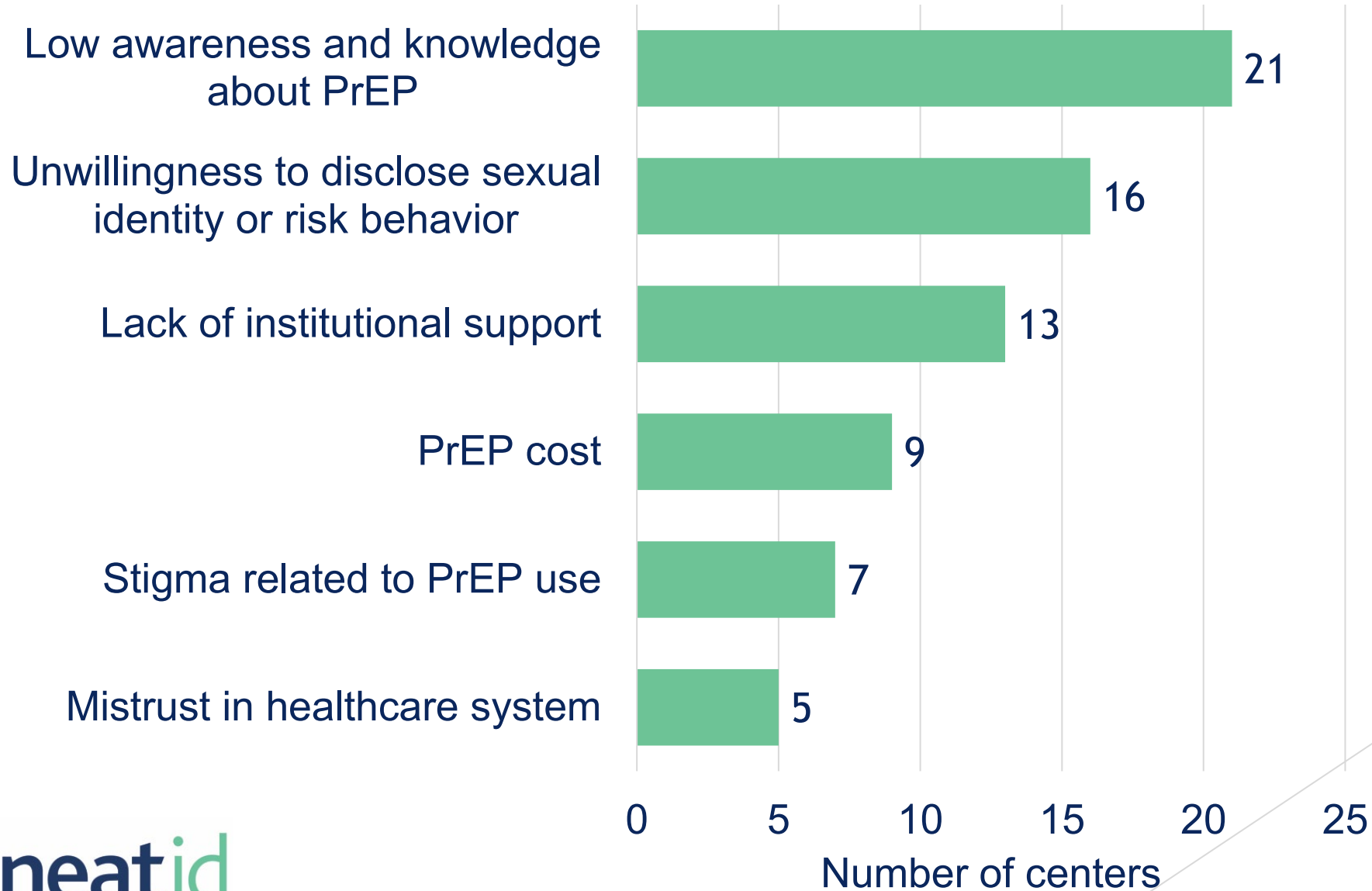
### Profile of PrEP Users and Dosing Regimens



■ Daily ■ On demand ■ Both

PREP SURVEY

## BARRIERS TO PrEP ROLL-OUT

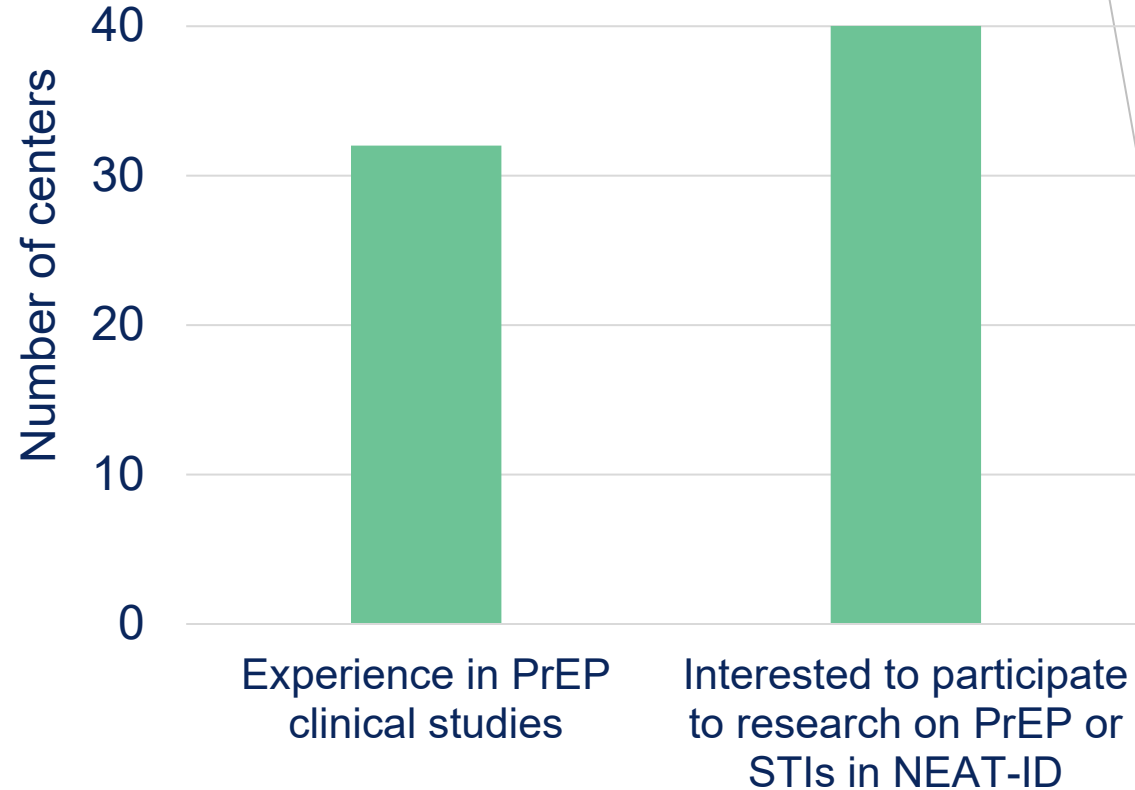


## CONCLUSION

### PrEP in the NEAT-ID network:

- Mainly implemented in Western European sites.
- Large and growing pool of PrEP users.
- High interest in sites for conducting research on PrEP and STIs.

### Involvement of Clinical Sites in PrEP and STIs Research



This supports a scope extension of research within NEAT ID toward HIV and STIs Prevention.

# WISARD

An open-label, multi-centre, randomised, switch study to evaluate the virological efficacy over 96 weeks of 2-drug therapy with DTG/RPV fdc in antiretroviral treatment-experienced HIV-1 infected subjects virologically suppressed with NNRTI resistance mutation K103N

Presented by: Stefano Rusconi, M.D.

Sponsored by  
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Funded by **ViiV** **janssen**  
**Healthcare**

**neatid**

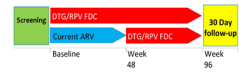
Authors: Graeme Moyle<sup>1</sup>, Lambert Assoumou<sup>2</sup>, Jean-Michel Molina<sup>3</sup>, Frank Post<sup>4</sup>, Adria Curran<sup>5</sup>, Stefano Rusconi<sup>6</sup>, Stephane De Wit<sup>7</sup>, Christoph Stephan<sup>8</sup>, François Raffi<sup>9</sup>, Margaret Johnson<sup>10</sup>, Maria Del Mar Masia<sup>11</sup>, Jamie Vera<sup>12</sup>, Carl Felche<sup>13</sup>, Annie Duffy<sup>14</sup>, Kellie Morris<sup>15</sup>, Anton Pozniak<sup>16</sup>, for NEAT Foundation, WISARD study group.

Background
• The 2-drug regimen of DTG/RPV has been studied in switch for virologically suppressed subjects with no prior history of treatment failure or resistance (SWOR18 & 79a).

• The aim of this study is to assess the efficacy and tolerability of a dual combined therapy of Dolutegravir (DTG) 50 mg OD + Rilpivirine (RPV) 25 mg OD in virologically suppressed participants with previous virological failure with NNRTIs and documented to have had the mutation K103N.

Background
• This is a 96-week European, open-label, multi-centre, exploratory study randomised 2:1 of switch to DTG/RPV vs continuing current suppressive regimen (CSR) in treatment experienced, HIV-1 subjects with documented, prior K103N mutation.

Experimental Arm: 100 patients switch to DTG/RPV regimen for 96 weeks
Control Arm: 50 patients continue on current regimen for 48 weeks before switching to DTG/RPV



Screening DTG/RPV F5C
Current ARV DTG/RPV F5C
Baseline Week 48 Week 96

Assessed for eligibility (n=171)
No eligible (n=3)
• 1 ineligible (K103N)
• 1 ineligible (RPV antibody)
• 1 ineligible (no prior history of K103N)
• 1 other reason

Randomised (n=140)
DTG/RPV regimen (n=48)
• 0 did not receive allocated intervention

Discontinuation at week 48 (n=4)
• 1 lost to follow-up
• 1 AE
• 1 lack of follow-up
• 1 withdrew consent
• 1 other reason

Per protocol population (n=136)
• Exclusion of 1 missing at baseline, 1 not 1 consent withdrawn, 3 other reasons

Statistical Methods
• Data were summarised using median and interquartile range (IQR) for continuous variables and number and percentage for categorical variables.

• Change in laboratory parameter analyses were performed using mixed models with random intercept.

• Poisson regression model was used to compare the incidence of adverse events between the 2 groups.

• All reported p values are two-tailed with a significance level set at 5%.

Patient Demographics

Table with columns: Age (years), Gender, Ethnicity, Weight, Height, etc. comparing DTG/RPV and Current ART groups.

Immunological data at screening

Table with columns: median (IQR), DTG/RPV (N=95), Current ART (N=45), Total (N=140) for CD4 count, CD4-%, etc.

ARV at enrolment

Table showing ARV regimens: NNRTI regimen, Tenofovir DF (TDF), Emtricitabine, Abacavir/zidovudine, etc.

Reasons for non-success at week 48

Table with columns: HIV RNA < 50 copies/mL, DTG/RPV (n=95), Current ART (n=45), Total (n=140).

Details of Protocol defined virological failures at week 48

Table with columns: ARV regimen at baseline, Treatment, DTG/RPV, HIV RNA < 50 copies/mL, etc.

Conclusions

- In subjects with archived K103N currently suppressed on standard regimens, switch to DTG/RPV maintains virological suppression in the majority of subjects through week 48.

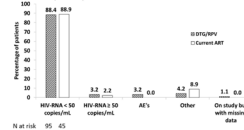
- Higher rates of mainly grade 1 AEs were observed, consistent with other switch studies.

Results

Results were available for all 140 randomised subjects (DTG/RPV: n=95, CSR: 45), well matched for baseline characteristics, median age was 52yr, 82% male, 73% white and median CD4 570 c/uL.

Adverse event occurred with DTG/RPV 80.0% vs CSR 73.3%. Drug-related AE rate was 23.2% for DTG/RPV (mostly grade 1, and one grade 3) with none in the CSR group.

Primary Efficacy Endpoint\*



Safety results

Table with columns: Any adverse events (SAEs), Grade 1, Grade 2, Grade 3, etc., comparing DTG/RPV and Current ART.

Title of poster: Randomised study of switch to DTG/RPV in subjects with HIV RNA <50c/ml and archived K103N over 48 weeks

Presented at: IAS 2022

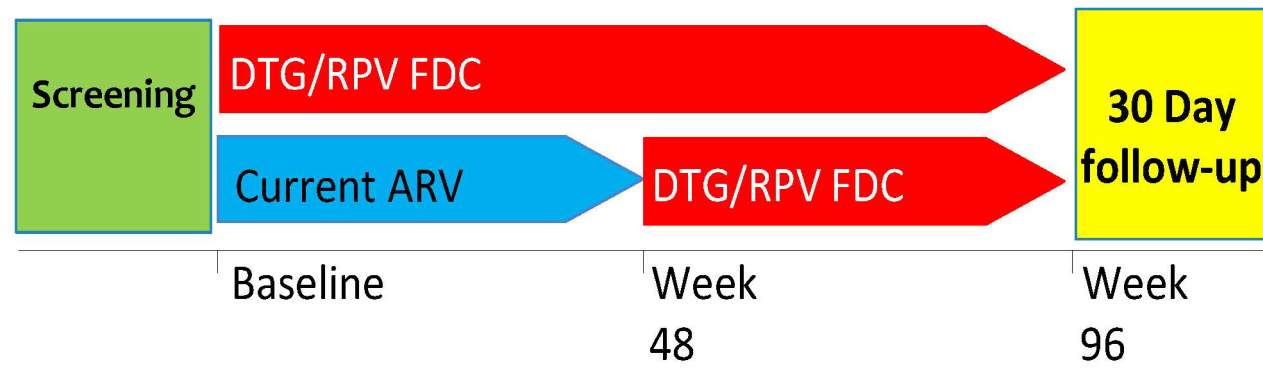
## STUDY OUTLINE

### Experimental Arm:

100 Patients switch to DTG/ RPV regimen for 96 weeks.

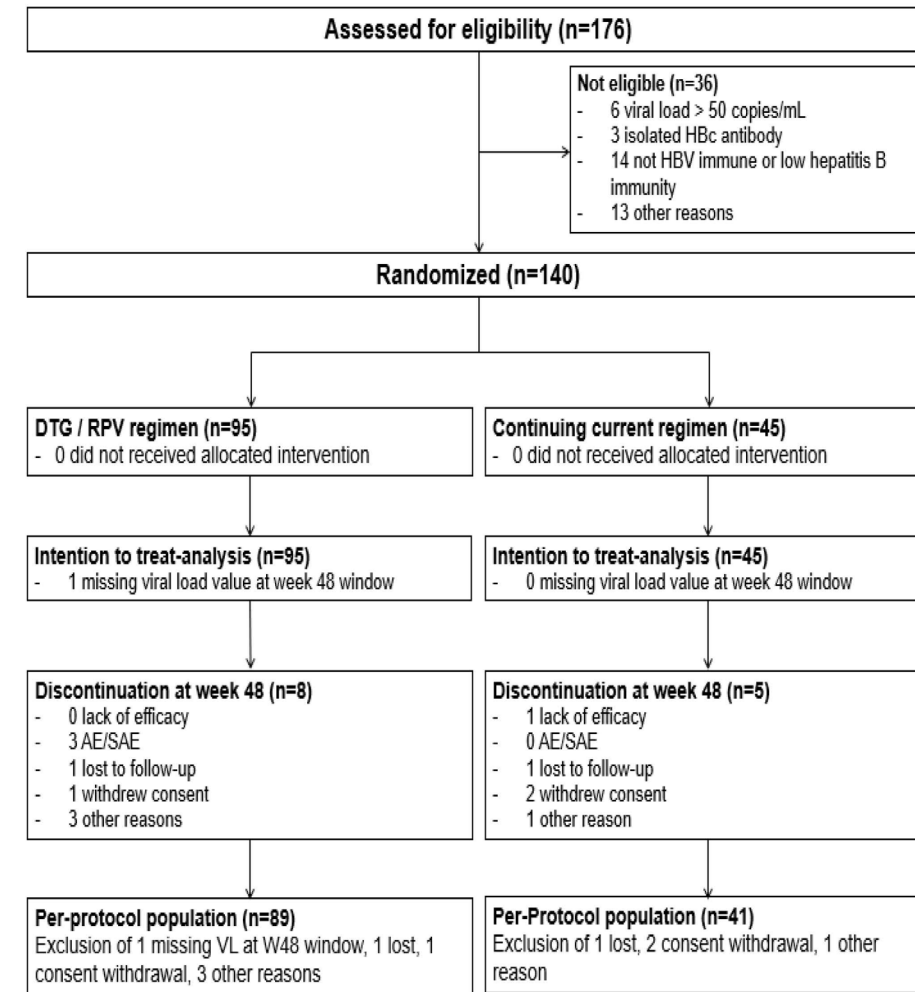
### Control Arm:

50 patients continue on current regimen for 48 weeks before switching to DTG/ RPV





# STUDY FLOW CHART

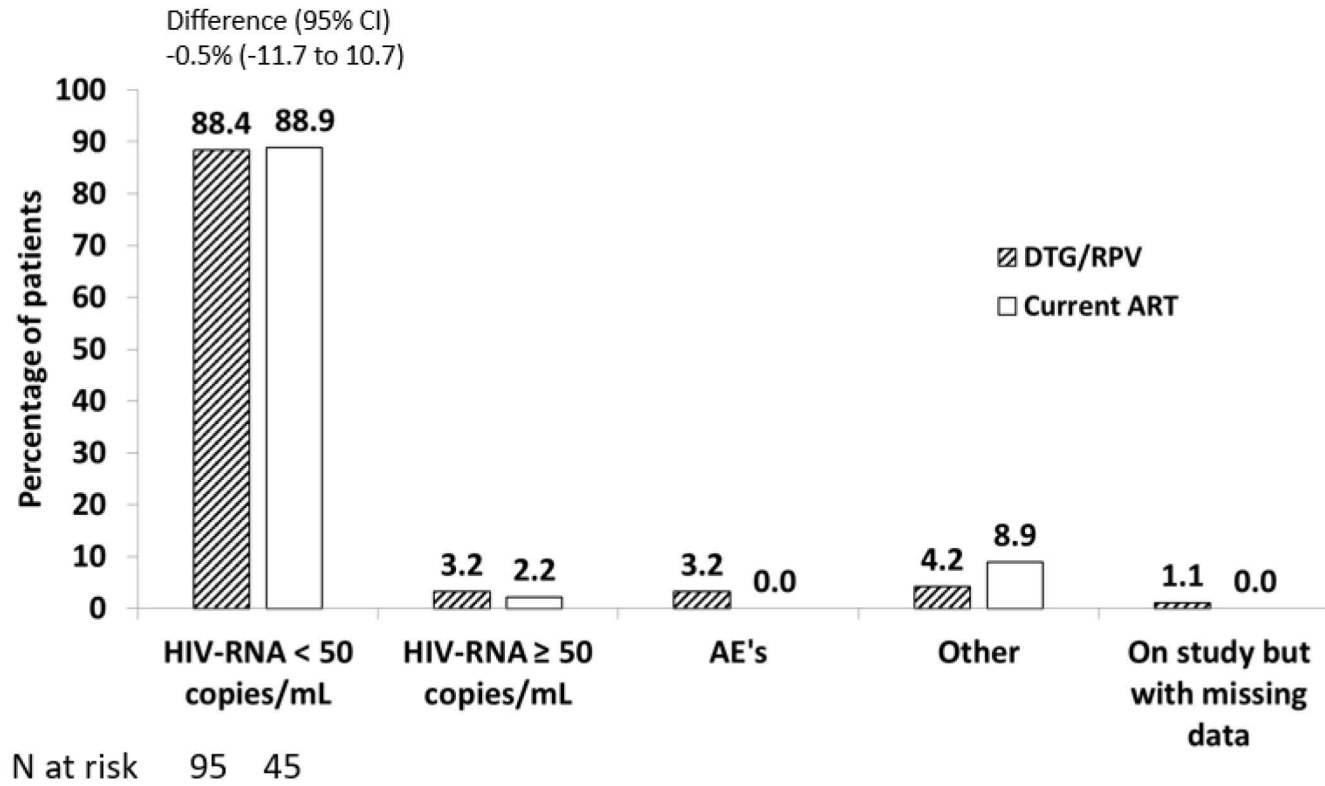


## PATIENT DEMOGRAPHICS

|   | DTG/RPV<br>(N=95) | Current ART<br>(N=45) | Total<br>(N=140) |
|---|-------------------|-----------------------|------------------|
| <b>Age (years), median (IQR)</b>                      | 52 (44-58)        | 53 (47-56)            | 52 (46-57)       |
| <b>Gender, N(%)</b>                                   |                   |                       |                  |
| Male  | 78 (82.1)         | 35 (77.8)             | 113 (80.7)       |
| Female  | 17 (17.9)         | 10 (22.2)             | 27 (19.3)        |
| <b>Child bearing potential, N(%)</b>                  | 6/17 (35.3)       | 3/10 (30.0)           | 9/27 (33.3)      |
| <b>Ethnicity, N(%)</b>                                |                   |                       |                  |
| White caucasian                                       | 69 (72.6)         | 29 (64.4)             | 98 (70.0)        |
| White mixed   | 2 (2.1)           | 1 (2.2)               | 3 (2.1)          |
| Asian   | 4 (4.2)           | 0 (0)                 | 4 (2.9)          |
| Black   | 7 (7.4)           | 7 (15.6)              | 14 (10)          |
| African   | 4 (4.2)           | 3 (6.7)               | 7 (5)            |
| Caribbean   | 1 (1.1)           | 1 (2.2)               | 2 (1.4)          |
| Other   | 8 (8.4)           | 4 (8.9)               | 12 (8.6)         |
| <b>Time since HIV diagnosis (years), median (IQR)</b> | 17.1 (7.3-26.3)   | 22.4 (13.1-26.5)      | 19.7 (8.8-26.4)  |
| <b>Duration on ART (years), median (IQR)</b>          | 15.8 (6.3-23)     | 17.7 (10.5-23)        | 16.2 (7.3-23)    |

# PRIMARY EFFICACY ENDPOINT

Proportion of participants with HIV-RNA <50 copies/mL at week 48, with the ITT FDA Snapshot method



# DETAILS OF PDVF AT WEEK 48

| ARV regimen at screening                    | Treatment group          | HIV-RNA VL.SCR    | HIV-RNA VL.BSL    | HIV-RNA VL.WK4                       | HIV-RNA VL.WK12   | HIV-RNA VL.WK24                       | HIV-RNA VL.WK48                       | HIV-RNA VL.ET     | DRMs prior to baseline   |
|---|--------------------------|-------------------|-------------------|--------------------------------------|-------------------|---------------------------------------|---------------------------------------|-------------------|--|
| Darunavir (DRV) /Cobicistat                 | Switch to DTG/RPV        | <20 (14-FEB-2019) | 27 (12-MAR-2019)  | 60 (09-APR-2019)    73 (07-MAY-2019) | <20 (01-JUL-2019) |                                       |                                       | <20 (10-SEP-2019) | <b>PI:</b> L63P, A71T, V77I, L90M, I93L<br><b>NRTI:</b> 39A; D67N; T69S; K70R; M184V; K219Q<br><b>NNRTI:</b> K103N/R/S |
| Darunavir (DRV) /Ritonavir (RTV)/TDF/FTC    | Switch to DTG/RPV        | 38 (04-FEB-2019)  | <20 (18-FEB-2019) | 36 (18-MAR-2019)                     | 45 (13-MAY-2019)  | 139 (12-AUG-2019)    36 (30-AUG-2019) | 55 (20-JAN-2020)    109 (03-FEB-2020) | <20 (02-APR-2020) | <b>NNRTI:</b> K103N  |
| TAF/FTC/EVG/c                               | Switch to DTG/RPV        | <20 (26-MAR-2019) | <20 (08-APR-2019) | 22 (07-MAY-2019)                     | 20 (01-JUL-2019)  | 62 (23-SEP-2019)    28 (07-OCT-2019)  | 116 (09-MAR-2020)    86 (09-APR-2020) | <20 (01-JUN-2020) | <b>PI:</b> A71T<br><b>NNRTI:</b> K103N   |
| Raltegravir (RAL) /Maraviroc (MVC) /TAF/FTC | Continue current therapy | <39 (10-OCT-2019) | <39 (07-NOV-2019) | <39 (05-DEC-2019)                    | 41 (30-JAN-2020)  | 204 (23-APR-2020)    98 (29-MAY-2020) |                                       | 129 (02-JUL-2020) | <b>PI:</b> L33F/L; A71A/V; V82A/V; L90L/M<br><b>NRTI:</b> D67D/N; T69A/T; M184V; T215S/T<br><b>NNRTI:</b> K103N        |



With generous support from ViiV healthcare through funding and drug donation



# Conclusions

- In subjects with archived K103N currently suppressed on standard regimens, switch to DTG/RPV maintains virological suppression in the majority of subjects through week 48.
- Higher rates of mainly grade 1 AEs were observed, consistent with other switch studies.

# NEAT 022 Sub-Studies

Limited weight impact after switching from boosted protease inhibitors to dolutegravir in people living with HIV with high cardiovascular risk: a post hoc analysis of the 96-week NEAT-022 randomized trial.

Presented by: Dr Esteban Martinez

JOURNAL ARTICLE ACCEPTED MANUSCRIPT

**Limited weight impact after switching from boosted protease inhibitors to dolutegravir in persons with HIV with high cardiovascular risk: a post hoc analysis of the 96-week NEAT-022 randomized trial** [Get access >](#)

Laura Waters, Lambert Assoumou, Ana González-Cordón, Stefano Rusconi, Pere Domingo, Mark Gompels, Stephane de Wit, François Raffi, Christoph Stephan, Mar Masiá ... [Show more](#)

*Clinical Infectious Diseases*, ciac827, <https://doi.org/10.1093/cid/ciac827>

Published: 19 October 2022 [Article history](#) ▼

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# BACKGROUND AND END-POINTS

## Background

In NEAT022 trial, virologically suppressed PWH at high CV risk switching from PI to DTG either immediately (DTG-I) or after 48 weeks (DTG-D) showed:

- non-inferior virological suppression, and
  - significant lipid and CV risk reductions
- } on switching to DTG vs. continuing PI

## End-points

Major endpoints:

- 48- and 96-week weight and body mass index (BMI) changes.

Other end-points:

- Factors associated with weight/BMI changes within first 48 weeks of DTG exposure
- Proportion of participants by category of percent weight change
- Proportions of BMI categories over time
- Impact on metabolic outcomes

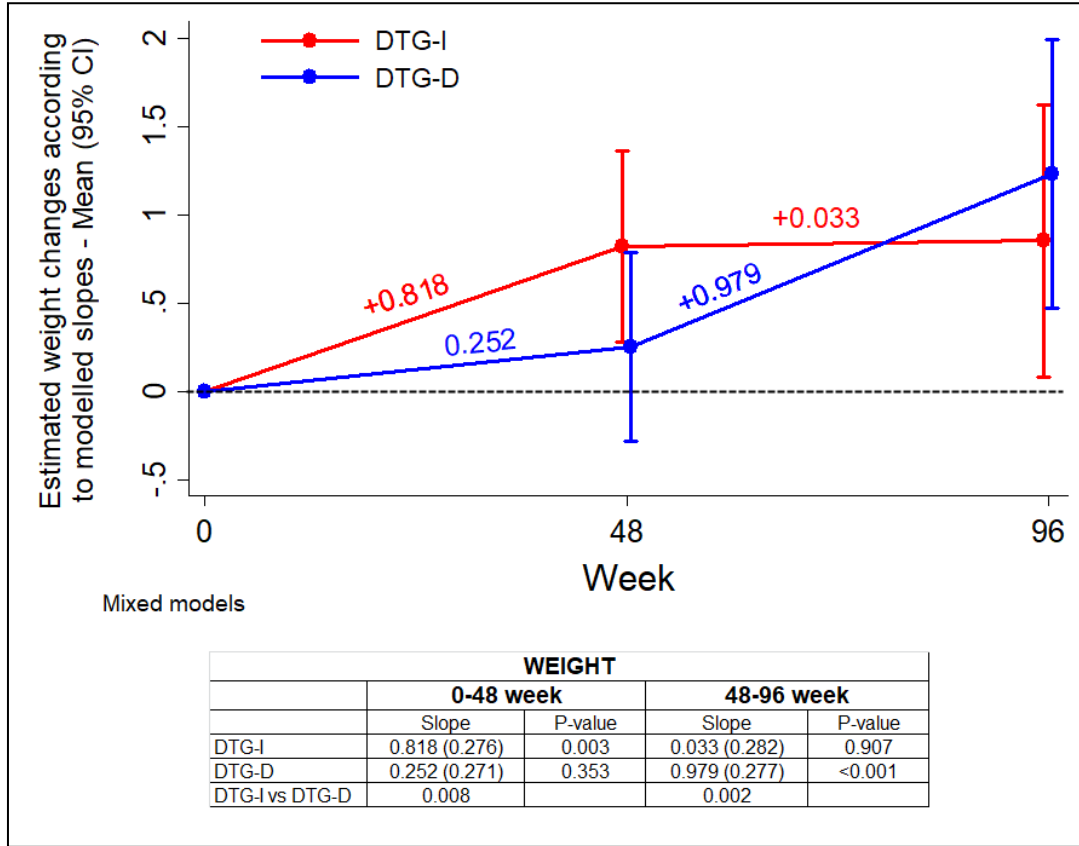
## BASELINE AND CHARACTERISTICS

|                           | DTG-I<br>(n=204) | DTG-D<br>(n=208) | Total<br>(n=412) |
|---------------------------|------------------|------------------|------------------|
| Age ≥ 50 years: %         | 87.3             | 88.0             | 87.6             |
| Framingham >10 at 10y: %  | 76.5             | 73.1             | 74.8             |
| Male gender: %            | 88.2             | 89.9             | 89.1             |
| White race: %             | 83.8             | 86.1             | 85.0             |
| CD4+ cells/μL: median     | 634              | 584              | 610              |
| Backbone nucleo(t)ides: % |                  |                  |                  |
| • TDF/FTC                 | 66.0             | 64.4             | 65.2             |
| • ABC/3TC                 | 31.5             | 32.7             | 32.1             |
| • Other                   | 2.5              | 2.9              | 2.7              |
| PI/r: %                   |                  |                  |                  |
| • Lopinavir               | 5.9              | 11.1             | 8.5              |
| • Darunavir               | 51.7             | 51.9             | 51.8             |
| • Atazanavir              | 37.9             | 34.1             | 36.0             |
| • Other                   | 4.4              | 2.9              | 3.7              |
| Current Smoker: %         | 38.2             | 37.7             | 38.0             |
| Daily exercise: %         | 31.4             | 27.9             | 29.6             |

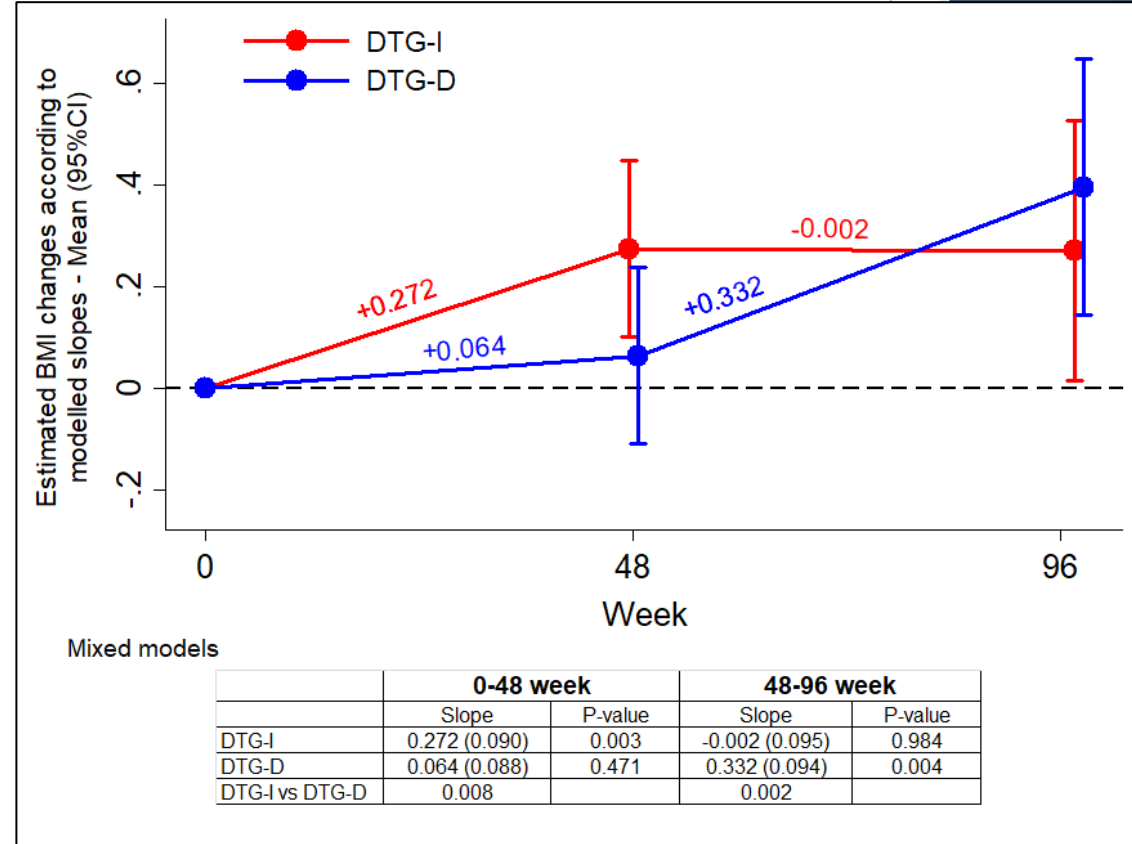
|                                  | DTG-I<br>(n=204) | DTG-D<br>(n=208) | Total<br>(n=412) |
|----------------------------------|------------------|------------------|------------------|
| Diabetes mellitus: %             | 5.4              | 6.7              | 6.1              |
| Hypertension: %                  | 36.0             | 38.0             | 37.0             |
| Lipid lowering agents: %         | 30.9             | 29.8             | 30.3             |
| Fasting lipids (mmol/L): median  |                  |                  |                  |
| • Total cholesterol              | 5.2              | 5.0              | 5.1              |
| • Triglycerides                  | 1.6              | 1.6              | 1.6              |
| • LDL-cholesterol                | 3.1              | 3.1              | 3.1              |
| • HDL-cholesterol                | 1.2              | 1.2              | 1.2              |
| • Total/HDL Cholesterol ratio    | 4.2              | 4.1              | 4.1              |
| BMI (Kg/m <sup>2</sup> ): median | 25.8             | 25.8             | 25.8             |
| • Underweight (<18.5): %         | 1.0              | 2.5              | 1.7              |
| • Normal (18.5 – 25): %          | 36.5             | 41.4             | 38.9             |
| • Overweight (25.01 – 30): %     | 47.8             | 40.9             | 44.3             |
| • Obese (>30): %                 | 14.8             | 15.3             | 15.0             |
| Weight, Kg: median               | 79.5             | 78.1             | 79.0             |



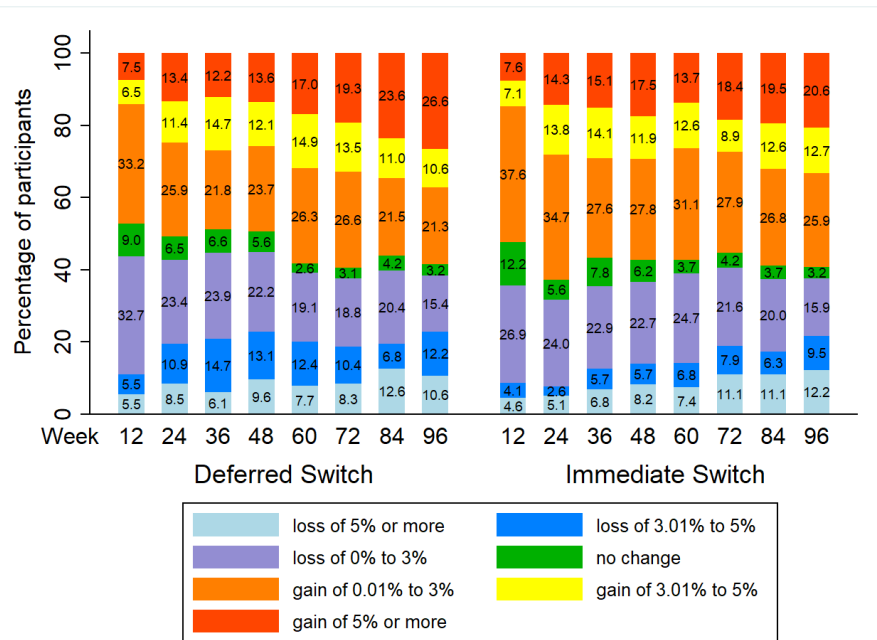
## Change in weight (kg) according to modelled slopes



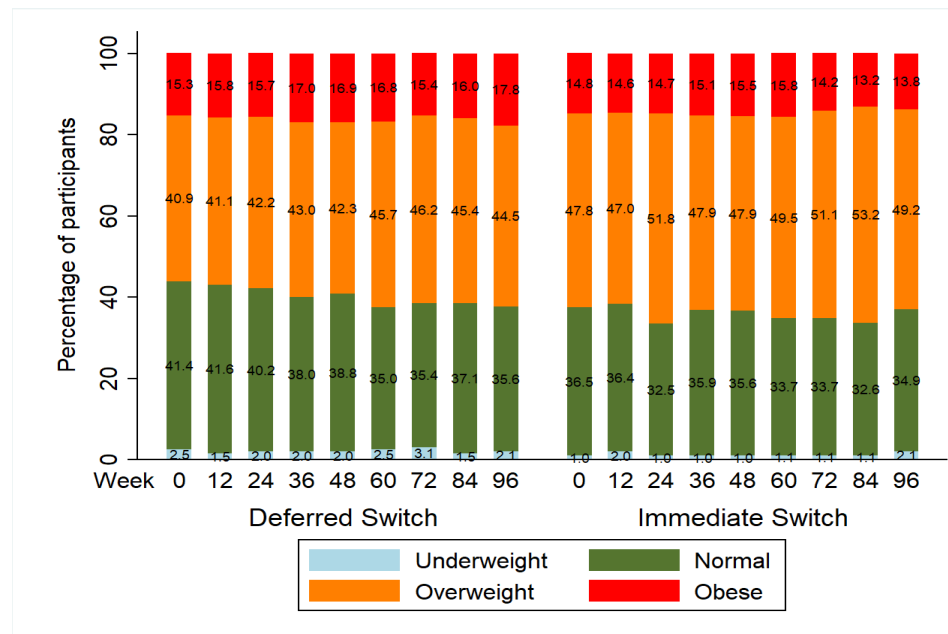
## Change in BMI (kg/m<sup>2</sup>) according to modelled slopes



## Proportion of participants by category of percent weight change from baseline



## Proportion of participants in underweight, normal weight, overweight or obese body mass index (BMI) categories over time



### Factors associated with change in weight after 48 weeks of DTG exposure

| Multivariable analysis | Baseline weight Mean | Mean gain (95% CI)         | P value |
|------------------------|----------------------|----------------------------|---------|
| Darunavir              | 79.6                 | 1.306<br>(0.716 ; 1.895)   | 0.0261  |
| White                  | 79.4                 | 1.003<br>(0.494 ; 1.512)   | 0.0370  |
| TC/HDL <3.7            | 75.2                 | 1.615<br>(0.795 ; 2.434)   | 0.0361  |
| Underweight BMI        | 50.2                 | 4.093<br>(2.771 ; 5.415)   | 0.0079  |
| Normal BMI             | 69.3                 | 1.599<br>(0.962 ; 2.236)   |         |
| Overweight             | 82.6                 | 0.386<br>(-0.212 ; 0.985)  |         |
| Obese                  | 97.2                 | -0.015<br>(-0.813 ; 0.784) |         |

### Percent change at weeks 48 and 96

|                      | 48 weeks |       | 96 weeks |       |
|----------------------|----------|-------|----------|-------|
|                      | DTG-I    | DTG-D | DTG-I    | DTG-D |
| Lipid-lowering drugs | -1.3     | 3.4   | -1.7     | -0.9  |
| Diabetes mellitus    | 0.2      | -0.1  | 1.2      | -0.7  |
| Hypertension         | 2.7      | 4.9   | 5.3      | 5.5   |

*P within & between arms not significant at any time-point*

## BACKGROUND AND END-POINTS

- ✓ Switching from boosted PI to DTG in PWH with high CV risk led to modest weight gain limited to the first 48 weeks which involved preferentially normal-weight or underweight persons and was not associated with negative metabolic outcomes

# NEAT ID Studies

Presented by Prof Georg Behrens

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# HIV CLINICAL STUDIES

## **WISARD**

“AN OPEN-LABEL, MULTI-CENTRE, RANDOMISED, SWITCH STUDY TO EVALUATE THE VIROLOGICAL EFFICACY OVER 96 WEEKS OF 2-DRUG THERAPY WITH DTG/RPV FDC IN ANTIRETROVIRAL TREATMENT-EXPERIENCED HIV-1 INFECTED SUBJECTS VIROLOGICALLY SUPPRESSED WITH NNRTIS RESISTANCE MUTATION K103N”

*Status: Recruitment Closed, focus is on patient retention. 140 patients recruited*

## **LAPTOP**

“AN OPEN-LABEL, MULTI-CENTRE, RANDOMISED STUDY TO INVESTIGATE INTEGRASE INHIBITOR VERSUS BOOSTED PROTEASE INHIBITOR ANTIRETROVIRAL THERAPY FOR PATIENTS WITH ADVANCED HIV DISEASE”

*Status: In Active Recruitment, 345 out of 440 patient target*

# HIV CLINICAL STUDIES

## **REPRIEVE**

“A PHASE III STUDY EVALUATING THE EFFECT OF PITAVASTATIN TO PREVENT CARDIOVASCULAR EVENTS IN HIV-1 INFECTED INDIVIDUALS”

*Status: Recruitment Closed. 213 patients recruited*

## **“FOST SWITCH”**

“EVALUATING EFFICACY AND CONVENIENCE OF SWITCHING A BOOSTED PROTEASE INHIBITOR TO FOSTEMSAVIR IN PLWH WITH LIMITED THERAPEUTIC OPTIONS”

*Status: At Regulatory Stage*

# COVID CLINICAL STUDIES

## **PIONEER**

“A RANDOMISED CONTROLLED TRIAL OF EARLY INTERVENTION IN PATIENTS HOSPITALISED WITH COVID-19: FAVIPRAVIR VERSES STANDARD OF CARE”

*Status: Recruitment Closed. 502 patients recruited*

## **NECTAR**

“NOVEL EXPERIMENTAL COVID THERAPIES AFFECTING HOST RESPONSE”

*Status: In Set Up, Expected to start recruitment in November 2022*



# HIV DATA STUDIES

## **COMBINE 2**

“REAL-WORLD EVIDENCE FOR EFFECTIVENESS OF TWO DRUG REGIMEN (2DR): ANTIRETROVIRAL THERAPY WITH INTEGRASE INHIBITORS PLUS A SINGLE NUCLEOSIDE ANALOGUE”

*Status: Recruitment Closed. 773 patients recruited*

## **DOLOMITE**

“A PROSPECTIVE, MULTI-SITE OBSERVATIONAL STUDY TO DEFINE THE SAFETY AND EFFECTIVENESS OF DOLUTEGRAVIR USE IN HIV POSITIVE PREGNANT WOMEN”

*Status: In Active Recruitment, 174 / 200 patients recruited*

## **FOST SURVEY**

“EXECUTION OF A FEASIBILITY QUESTIONNAIRE AND TOOL IDENTIFYING ASPECTS OF THE EUROPEAN HIV POPULATION IN RELATION TO FOSTEMSAVIR UTILISING THE NEAT ID NETWORK”

*Status: Closed*

# HIV DATA STUDIES

## **C2C**

“REAL-WORLD EVIDENCE FOR EFFECTIVENESS OF TWO DRUG REGIMEN, ANTIRETROVIRAL THERAPY WITH AN INTEGRASE INHIBITOR PLUS A REVERSE TRANSCRIPTASE INHIBITOR”

*Status: In Set Up / Active Recruitment as of September 2022*

## **DREW**

“A COHORT STUDY OF USE OF DORAVIRINE (DOR) BASED REGIMENS IN CLINICAL PRACTICE IN EUROPE”

*Status: In Set Up / Active Recruitment as of October 2022*

# COVID DATA STUDIES

## **909REM**

“A MULTI-CENTRE, MULTI-COUNTRY RETROSPECTIVE COHORT STUDY TO EVALUATE THE CLINICAL OUTCOMES IN ADULTS WITH COVID-19 WHO HAVE BEEN TREATED WITH REMDESIVIR”

*Status: Recruitment Closed. 451 cases*

## **GS-US-540-5807**

“A MULTI-CENTER, MULTI-COUNTRY RETROSPECTIVE COHORT STUDY TO EVALUATE THE CLINICAL OUTCOMES IN ADULTS WITH SEVERE COVID-19”

*Status: Closed. 1041 cases*

## **HIV CoCo**

“HIV-1 & CORONAVIRUS-COINFECTION IN EUROPE (HIV-COCO): MORBIDITY & RISK FACTORS OF COVID-19 IN PEOPLE LIVING WITH HIV”

*Status: Recruitment Closed. 1878 cases*

# NEAT ID Publications

Presented by Prof Georg Behrens

# NEAT ID PUBLICATIONS, POSTERS AND ABSTRACTS

## NEAT 22

- ✓ 5 Publications

## WISARD

- ✓ Interim analysis (24 weeks) abstract presented as an ePoster at IAS 2021
- ✓ Interim analysis (48 weeks) abstracted presented as a Poster at AIDS 2022
- ✓ Week 48 manuscript in draft

## REPRIEVE

- ✓ 9 Publications
- ✓ 2 submitted to CID – pending outcome
- ✓ 2 in development

## COMBINE-2

- ✓ Abstract approved for EACS 2022 and presented as a Poster
- ✓ Paper submitted to BHIVA awaiting outcome

## 909REM

- ✓ 2 x abstracts approved for ID week 2021, presented as Posters
- ✓ 2 x papers have been approved by Journal of Infection

## GS-US-540-5807

- ✓ Paper accepted by Oxford University Press for the Infectious Diseases Society of America

## PIONEER

- ✓ Paper in Press with Lancet Respiratory

# NEAT ID New Studies

Presented by Prof  
Stephane De Wit

neatid

# NECTAR *COVID-19 Study*

CONNECTS Master Protocol for Clinical Trials targeting macro-, micro-immuno-thrombosis, vascular hyperinflammation, and hypercoagulability and renin-angiotensin-aldosterone system (RAAS) in hospitalized patients with COVID-19 (ACTIV-4 Host Tissue)

Status: In set up

# DREW *HIV Study*

A Cohort Study of use of Doravirine (DOR) based regimens in clinical practice in Europe

Status: In Set Up



# MASH 1 and 2 *MPX Study*

## EPOXI *MPX Study*

Mash 1- Registry of HIV and prep patients with MPX

Mash 2 – Prospective cohort of HIV and PrEP patients without MPX

EPOXI – Drug trial of Tecovirimat in out-patients presenting with MPX

*Funded by*



# Integration Grants

Presented by  
Prof Jurgen Rockstroh

# WHAT IS A NEAT ID INTEGRATION GRANT?

- A scientific grant given to a minimum of two countries in collaboration, which includes at least one NEAT ID site
- They are preferentially provided to studies which may relate to ongoing NEAT ID trials
- Cover a wide range of infectious diseases which NEAT ID are interested in, HIV, Hepatitis, MPX, COVID
- The value of the grant is around 100,000 euros
- Reviewed by an independent international panel of experts

# PREVIOUS NEAT ID INTEGRATION GRANTS

## **Dr Christoph Boeseck Grant 2016**

Bonn University Hospital NEAT 001 Follow Up

**Re-infection and DAA-based treatment uptake in acute HCV coinfection within the European acute HCV cohort PROBE-C**

*Publications:*

*Ingiliz P, Martin TC, Rodger A, Stellbrink HJ, Mauss S, Boesecke C, Mandorfer M, Bottero J, Baumgarten A, Bhagani S, Lacombe K, Nelson M, Rockstroh JK; NEAT study group. HCV reinfection incidence and spontaneous clearance rates in HIV-positive men who have sex with men in Western Europe. J Hepatol. 2017 Feb;66(2):282-287. IF 14.911*

*Monin MB, Ingiliz P, Lutz T, Scholten S, Cordes C, Martínez-Rebollar M, Spinner CD, Nelson M, Rausch M, Bhagani S, Peters L, Reiberger T, Mauss S, Rockstroh JK, Boesecke C; PROBE-C study group. Low spontaneous clearance rates of recently acquired hepatitis C virus in HIV-positive MSM (The PROBE-C Study). Clin Infect Dis. 2022 Aug 25:ciac680. IF 9.079*

*Oral presentation at CROI 2018 and Poster at CROI 2019.*

*Has been awarded NEAT ID Integration Grant 2022 for follow up*

# PREVIOUS NEAT ID INTEGRATION GRANTS

## Dr Jose Arribas **Grant 2016**

Foundation for Biomedical Research of University, Hospital La Paz, Madrid

**Telomere length changes after darunavir-ritonavir combined with either raltegravir or tenofovir-emtricitabine in antiretroviral-naive adults with HIV-1: a sub-study of the NEAT001/ANRS143**

*Publications:*

*Stella-Ascariz N, Montejano R, Rodriguez-Centeno J, Alejos B, Schwimmer C, Bernardino JI, Rodes B, Allavena C, Hoffmann C, Gisslén M, de Miguel R, Esteban-Cantos A, Wallet C, Raffi F, Arribas JR; NEAT 001/ ANRS 143 Study Group. Blood Telomere Length Changes After Ritonavir-Boosted Darunavir Combined With Raltegravir or Tenofovir-Emtricitabine in Antiretroviral-Naive Adults Infected With HIV-1. J Infect Dis. 2018 Oct 5;218(10):1523-1530. IF 5.60*

Alejos B, Stella-Ascariz N, Montejano R, Rodriguez-Centeno J, Schwimmer C, Bernardino JI, Rodes B, Esser S, Goujard C, Sarmiento-Castro R, De Miguel R, Esteban-Cantos A, Wallet C, Raffi F, Arribas JR; NEAT 001/ANRS 143 Study Group. Determinants of blood telomere length in antiretroviral treatment-naïve HIV-positive participants enrolled in the NEAT 001/ANRS 143 clinical trial. HIV Med. 2019 Nov;20(10):691-698. IF 3.556

# PREVIOUS NEAT ID INTEGRATION GRANTS

## **Prof. Gilles Wandeler** Grant 2016

University of Bern

**Multi-cohort study to inform hepatocellular carcinoma screening strategies in HIV/HBV-coinfected individuals on tenofovir-containing therapy**

*Publications:*

*Wandeler G, Mauron E, Atkinson A, Dufour JF, Kraus D, Reiss P, Peters L, Dabis F, Fehr J, Bernasconi E, van der Valk M, Smit C, Gjørde LK, Rockstroh J, Neau D, Bonnet F, Rauch A; Swiss HIV Cohort Study, Athena Observational Cohort Study, EuroSIDA, ANRS CO3 Aquitaine Cohort. Incidence of hepatocellular carcinoma in HIV/HBV-coinfected patients on tenofovir therapy: Relevance for screening strategies. J Hepatol. 2019 Aug;71(2):274-280. IF 30.083*

*Second paper currently under review*

# PREVIOUS NEAT ID INTEGRATION GRANTS

## **Professor Charles Béguelin Grant 2018**

Department of Infectious Diseases, Bern University Hospital, University of Bern,  
Switzerland

### **Kinetics of Hepatitis B Virus markers in treated HIV/HBV-coinfected patients**

*Publications:*

*Begré L, Béguelin C, Boyd A, Peters L, Rockstroh J, Günthard HF, Bernasconi E, Cavassini M, Lacombe K, Mocroft A, Wandeler G, Rauch A. Long-term trends of alanine aminotransferase levels among persons living with human immunodeficiency virus/hepatitis B virus with and without hepatitis delta coinfection. Front Med (Lausanne). 2022 Sep 15;9:988356. IF 4.71*

*2 additional manuscripts in preparation*

# NEAT ID 2022 INTEGRATION GRANT AWARDEES

**Merle Henderson // Imperial College  
London**

Title: Longitudinal changes in plasma neuronal markers in persons with HIV commencing ART.

**Linos Vandekerckhove // Ghent  
university**

Title: Feasibility evaluation of anti-HIV Antibody-secreting Chimeric Antigen Receptor T cells as a potential cure in acute seroconverters

**Christoph Boesecke // Bonn  
University Hospital**

Title: NEAT-No-C: A multicenter European cohort on annual HCV incidence in MSM in Europe with an embedded European HCV biobank



In thanks for your support of the NEAT  
ID Network we invite you to join us for  
drinks on Monday 24<sup>th</sup> October 7-8pm at  
the Crowne Plaza Bar



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and global infectious diseases

THANK YOU

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website: [www.NEAT-ID.org](http://www.NEAT-ID.org)

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