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## 1. Glossary of Abbreviations

ART Antiretroviral Therapy; treatment for HIV using a combination of drugs

BHIVA British HIV Association; UK-based organisation providing HIV care guidelines

Body Mass Index; a measure of body fat based on height and weight

**CART** Combined Antiretroviral Therapy;

a regimen using multiple antiretroviral drugs

CVD Cardiovascular Disease; includes heart disease and stroke

CT Chlamydia trachomatis; a common sexually transmitted infection

**EACS** European AIDS Clinical Society

**EBV** Epstein-Barr Virus; associated with certain cancers

**EMEA** European Medicines Agency; regulatory body for medicines in the EU

**HAART** Highly Active Antiretroviral Therapy;

an older term for effective HIV treatment

**HBV** Hepatitis B Virus; causes liver infection

**HCV** Hepatitis C Virus; another liver-infecting virus

**HPV** Human Papillomavirus; linked to cervical and anal cancers

INSTIs Integrase Strand Transfer Inhibitors; a class of antiretroviral drugs

LDL- Low-Density Lipoprotein cholesterol; cholesterol "bad" cholesterol linked to heart disease

MenB Vaccine against Neisseria meningitidis serogroup B

vaccine

NCD Non-Communicable Disease

NG Neisseria gonorrhoeae; bacteria causing gonorrhoea

NSV Non-Suppressive Viraemia; persistent HIV viral load despite treatment

PICO Population, Intervention, Comparator, Outcome;

framework for designing clinical research

PIs Protease Inhibitors; a class of antiretroviral drugs

Pre-Exposure Prophylaxis; HIV prevention method using antiretroviral drugs

**REPRIEVE** Randomized Trial to Prevent Vascular Events in HIV;

a major study on CVD prevention

Randomised Control Trials; a type of clinical study design

STI Sexually Transmitted Infection

**SMART** Strategies for Management of Antiretroviral Therapy;

a key study in HIV treatment

TasP Treatment as Prevention; using ART to reduce HIV transmission

**TB** Tuberculosis

TIA Transient Ischaemic Attack; a temporary stroke-like event

**UNAIDS** Joint United Nations Programme on HIV/AIDS;

global HIV response organisation





## 2. Introduction and Event Summary

This document gives an overview of the European AIDS Clinical Society (EACS) HIV Summer School 2025. The annual event is designed for HIV physicians and clinical scientists to exchange ideas and practices with colleagues and faculty from all over the world. It also helps to create and reinforce the international network of young physicians engaged in the fight against HIV.

The residential course gathered 60 participants from 32 countries, for a five-day training programme on 1-5 September 2025 in Lyon, France. Accredited by the European Accreditation Council for Continuing Medical Education (EACCME®), attendees earned 28 European CME Credits (ECMEC®s) for time dedicated to education outside daily clinical practice.

The event was designed to provide updates on recent advances in current issues in HIV diagnosis, management and prevention, as well as in medical statistics and clinical research methodology. In addition to following the central programme, participants chose between two parallel modules: the research aspects of HIV medicine or the clinical aspects of HIV co-infections, opportunistic infections and co-morbidities.

The programme was developed by a Steering Committee, made up of five members from across Europe. The faculty consisted of 17 global experts in HIV clinical care and research. A full list of the Steering Committee members and expert faculty can be found on page (TBD).

#### DAY I

The first day opened with a welcome speech and three plenary sessions over one and a half hours, followed by a half hour panel discussion with Q&A. Participants then separated for working groups to discuss Research and Clinical practices and concluded with a presentation for afternoon discussion. The Day I working groups considered: Study design, ART Management, and Identifying the research question.

In the first plenary session, Nicola Mackie (United Kingdom) considered ART. She explained principles of ART for the treatment of HIV and future perspectives for novel therapies, reflecting topics within the EACS core curriculum. An overview of the UNAIDS Report 2025 showed 40.8 million people living with HIV in 2024, as well as 1.3 million new HIV infections and 630,000 deaths due to AIDS for the same year. This suggests the world is not on track to treat all cases, reduce deaths, or prevent HIV by 2030. Treatment coverage has, however, risen dramatically from 1990 to 2025. "There has been progress to universal treatment but substantial gaps remain, and we need to address inequalities that drive the pandemic. "We can and should do better," she said. She also reminded participants that HIV treatment guidelines say "treatment should be 'immediate', tolerable, and life-long" for people living with HIV. This was followed by consideration of the various guidelines available, and a reminder of challenges faced by some people taking oral therapy. Injectable ART was considered as an alternative to oral, with patient satisfaction high but failures still occurring. Access is also critical and problematic. Several studies of injectable





ART were presented and concluded that these may be "a life-saving option for those who cannot take oral ART." Finally, a look at "new oral" therapy considered treatments in the pipeline and questions about missed doses. She concluded with a stark warning about US cuts to funding for HIV treatment.

Anders Boyd (Switzerland) followed this with a presentation on Establishing a re**search question and choosing an appropriate study design.** He opened with a simple reminder that "It is important to have a clear question before starting to design your study". The question will allow appropriate decisions around topics such as study population and the primary outcome of interest. A PICO checklist, looking at Population, Intervention, Comparator, and Outcome, can help with this. He showed how to use PICO to move from a vague question such as "Do people who see more doctors end up with worse outcomes?" to the very clear "Do elderly (>70 years), female people with metabolic syndrome and first presentation of TIA who have standard, multi-specialist (endocrinology, cardiovascular, gerontology) care have higher one-year mortality compared to those receiving integrated (endocrinology, cardiovascular, gerontology) guideline-driven, single centre specialist care within a metabolic clinic?" For research, however, there is also a need to avoid being too focused, because the more focused a question is, the less the answer will mean to the wider patient population. A look at the main types of study design was followed by consideration of research topics such as brain-age gap between persons with and without HIV.

**Paddy Mallon** then gave a plenary presentation on **Co-morbidities**. The prevalence of co-morbidities and multimorbidity increases with age, he reminded participants. Consideration of European and international HIV "ageing" cohorts looked at studies into the links between HIV and NCDs such as cancer, CVDs and chronic respiratory disease. This led to consideration of which HIV co-morbidities, many of which are interlinked, can be prevented - and whether prevention makes a difference for people with HIV. The REPRIEVE study led by BHIVA recommends, for instance, CVD risk assessment combined with a "holistic" approach to lifestyle, as well as offering all people with HIV aged over 40 a statin for the prevention of CVD. If the risk of CVD is found to be over 10%, EACS Guidelines also suggests treatment goals for LDL-cholesterol reduction. He gave a detailed overview of the EACS "target-driven goals for maximal risk reduction." In summary, treating co-morbidities improves mortality and there should be a focus on prevention of NCD through, for instance, smoking cessation and healthier lifestyles.

The first day concluded with discussion of **A brief history of HIV**, as presented by **Christine Katlama**. "How does the story start?", she asked, looking back to the first alarm bells, with reports of a "rare cancer in previously healthy homosexual men" in 1981. Consideration of "the dark years" of the 1980s, including shocking images and early mistakes, such as the belief that heterosexuals were not at risk, was followed by a look at Africa. The faculty talked about early studies and efforts to develop antiretroviral therapy. There was a reminder that AIDS was "the first disease to raise activism." Popular films such as Philadelphia were mentioned as having raised public awareness and sympathy. Research through the 1990s showed the urgent need for virologic markers. 1996 heard positive news about viral suppression at





the International AIDS Conference, Vancouver, followed by continued evolution of treatment strategies for HIV. Emerging life-saving drugs were soon understood to bring their own side effects, including resistance in some cases. 2005 was said to be the SMART Year, which was followed by dramatic reductions in HIV transmission rates. Antiretroviral drugs then came to be seen as the cornerstone of treatment and prevention. Over the past decade, a new paradigm has emerged or there has emerged a new paradigm in ART management, with the individualisation of antiretroviral therapy, and a new objective of viral suppression. An expected timeline of HIV over the next decade included a reminder that the next big challenge will be women's rights, in the light of the stigma and poor access to education faced by women in many of the most HIV vulnerable regions of the world.

#### **DAY II**

This second day took the same format as the first, with three morning plenaries and an afternoon discussion, held around a series of working groups. Topics for the Research and Clinical working groups on this date were **Collecting data**, **Sexual and reproductive health**, **Developing the study protocol** and **Management of unsuppressed viraemia/resistance**.

The day opened with a plenary presentation on **Resistance & management of** unsuppressed viraemia, by Romain Palich (France). Starting from a definition of both virological success and virological failure, he looked at what to do in cases of confirmed virological failure. This begins by discussing issues such as adherence, lifestyle and psychological difficulties with the patient. Additional biological tests, together with consideration of virological and therapeutic history, may then be needed. Finally, analysis of cumulated genotype and discussion of the available treatment options, should make it possible to build a new combination of drugs for the patient, including at least one fully active second-generation drug (boosted Pls or INSTIs) and at least one fully active drug from another class. Dr Palich then listed possible drugs of interest and discussed resistance mutations. A presentation of key new drugs and antiretroviral classes for people with HIV facing virological failure with multi-resistant viruses focused on Fostemsavir, Lenacapavir and Ibalizumab. Fully injectable ART for vulnerable people with HIV considered the latest state of research, as well as the available follow-up and support services. The presentation closed with consideration of potential emerging biological test to authenticate NSV.

Hypothesis testing, p-values and confidence intervals was the subject of the next presentation by Tracy Glass (Switzerland). Her presentation opened by explaining "Hypothesis testing is the formal procedure and framework we use to answer questions." She gave an example in which a new drug for treating naive individuals with HIV is developed, and clinicians want to know if they should start future patients on this drug or on the current standard of care. An analysis plan must be based on stating the hypothesis, then developed around determinants such as the number of groups in the study and the outcome of interest. The data can then be analysed and the results interpreted in line with the analysis plan. However, although P-values are here helpful in deciding which effects are likely to be real, they suffer from





several limitations and do not, for instance, allow findings to be put in a clinical context. Rather than just a P-value, the outcome of interest could be the 'treatment effect': the additional benefit that the new drug/regimen provides compared to the standard of care. A look at confidence intervals found that they can be more precise and therefore more meaningful than P-values alone.

Management of PrEP and prevention of STI was the subject of the next plenary from Agnès Libois (Belgium). Beginning with oral PrEP, the talk looked at PrEP in cisgender men. Key messages included that PrEP efficacy is around 99% but compliance is essential, along with a reminder that PrEP is not effective against other STIs. Side effects among this group include slight digestive problems and rare renal toxicity, as well as a risk of reduction in bone density, "but there is no evidence of an increased risk of fractures." On demand PrEP means taking two tablets two to 24 hours before sex, and one tablet 24 hours later, plus one 48 hours after the first. Gaps in PrEP access and unmet need touched on the challenging fact that certain key populations, such as people who inject drugs, prisoners, and undocumented migrants, remain ineligible for PrEP in many countries in Europe. Research also shows compliance problems and poor efficacy among women in Africa with oral PrEP. The use of Cabotegravir as an injectable PrEP has been approved in the USA, Australia and EMEA. Cost remains a challenge but Lenacapavir for PrEP will be "a game-changer" if access is adequate. WHO guidelines were made available in July 2025. NG and CT testing in asymptomatic men who have sex with men and transgender women is recommended every three to six months in PrEP guidelines but a reduction in asymptomatic infections has not so far been seen. At population level, the benefits of screening for NG and CT were found to outweigh the risks - but at an individual level, risk and benefits are likely to be equal. The quality of evidence linking Doxycycline and antimicrobial resistance was found to be low. Regarding the use of the MenB vaccine for protection against NG, she concluded that this depends on reimbursement but that, pending the results of ongoing studies, she would recommend it "for people with recurrent NG infection and money."

Participants later discussed the Implementation of PrEP and STI prevention, with a presentation led by Yvonne Gilleece (United Kingdom) and Anders Boyd (Switzerland). The two experts gave an overview of "implementation science," as this differentiates from and links up with precision medicine and a "learning" healthcare system. An in depth look at research to clinic feedback showed how research underpins all stages of clinical intervention. Specifically, with PrEP for HIV the implementation strategy will differ for daily PrEP and "event driven" PrEP. The speakers questioned whether the strategy is effective in changing broad behavioural and diagnostic patterns, as well as being efficacious with the HIV-positive and other groups targeted. Risk compensation, according to which individuals are more likely to take risks if they feel there is a safe intervention available, was also discussed. "Practitioners, policymakers, and decision-makers should stop over-relying on risk compensation as an argument to limit access to PrEP," the speakers said. Adherence to PrEP is a major driver of efficacy, but uptake is also important. Preventative prophylaxis, particularly Doxycycline, in the context of STI was considered for several patient groups. In the first six months of using Doxycycline, in one US study, there





was a 67% reduction in chlamydia diagnoses and a 78% drop in syphilis diagnoses. Over three years, there was an approximately 80% reduction in both. Balancing benefits and harms of Doxycycline for STI prophylaxis should mean, for instance, a pragmatic, case by case approach to offering Doxycycline to sex workers and transgender men having sex with men: a group of people who are assigned female at birth and at a higher risk of syphilis. Vaccination for mpox, was also discussed, with the presentation closing on Gonococcal vaccination for Neisseria gonorrhoea (N) gonorrhoea: specifically, the evaluation of Bexsero vaccination for gonorrhoea, which the UK became the first country in the world to offer in August 2025.

#### DAY III

This third day of the Summer School again heard three plenary presentations and a guest lecture. There were no working groups and participants were given a free afternoon.

Yvonne Gilleece (United Kingdom) took the first morning presentation with consideration of Conception, pregnancy, delivery, and breastfeeding. This opened with a reminder that, around the world, 20.2 million women and girls are living with HIV. It is also important to remember that, globally, HIV is the leading cause of death among women of reproductive age. There is also the question of "subfertility" and HIV to be considered. Unexplained subfertility is the failure to conceive after one year of unprotected intercourse, and it is higher among women with HIV. She recommended that "all individuals diagnosed with HIV should have a discussion about their hopes and fears for having a family." Some basic principles of HIV in pregnancy include considerations when prescribing ART for pregnant women with HIV. Elective or emergency caesarean was the most common mode of delivery among women with HIV in England over the years 2000-2020 - but vaginal births now count for about 40% of the total, up from just over 10% in 2000. Complications of caesarean section, including infections, are higher in women with HIV. A look at Neonatal Post Exposure Prophylaxis set out high, low and very low risk categories for women's situations. Turning to breastfeeding, factors that increase the risk of breast milk HIV transmission when women are not on cART include the detectable viral load and the duration of breastfeeding. Overall, in the UK and other "resource rich" settings the safest way to feed infants born to mothers/people with HIV is with formula milk, as this eliminates on-going risk of HIV exposure after birth. But there are no data on the risk of HIV transmission via breast milk in resource rich settings. No guidelines currently recommend breastfeeding as a first line approach, but guidelines are changing. Above all, when it comes to conception, pregnancy, delivery, and breastfeeding, it is important to educate the obstetric team, educate and inform patients, and ensure equal access to PrEP.

In her presentation on **Getting it wrong**, **Caroline Sabin (United Kingdom)** looked at **Errors in statistical tests and why we need well powered studies**. She opened with an overview of hypothesis testing, and of errors in hypothesis testing. In this context, the P-value is the probability of obtaining the results by chance, known as the





Type I error (a false positive signal). Every time a statistical test is performed, there is a risk that a Type I error will be made. Therefore, the probability that more than one result will be falsely significant increases exponentially along with the number of tests performed. Repetitions of a trial with no significant difference in outcomes would mean a P-value below 1. Interim analyses can also be used to control the P-value. Type 2 errors, meanwhile, occur if the researcher fails to reject a null hypothesis, even when there is a true difference (a false negative signal). Increasing the size of the study will reduce the Type 2 error rate. Type 1 errors matter because, for instance, "in a randomised trial, findings may erroneously suggest that a new treatment has a benefit that it doesn't have." Or, in cohort studies, unexpected findings, fuelled by the media, can create unnecessary panic. Type 2 errors meanwhile are important because for instance "In a randomised trial (researchers) may miss an important new treatment or diagnostic method." She concluded with reminders that statistical errors are pervasive in the literature, and to always apply caution.

Stéphane De Wit (Belgium) then considered cancers, in his presentation on HIV & Malignancies. The three AIDS defining malignancies were given as: Kaposi's sarcoma, Non Hodgkin lymphoma, and cervical cancer. It was noted that incidences of non-AIDS defining malignancies are increasing. These are HPV (Anal), HBV & HCV (Liver) and EBV (Hodgkin Lymphoma) cancers, none of which is linked with an identified virus. An overview of cancer diagnoses in the US showed that anal, cervical and breast cancer diagnosis rates are stable, while diagnoses of all other cancers have declined. However, Kaposi Sarcoma remains a concern for people with HIV who are being treated with ART. Risk factors associated with cancers in people with HIV include an increased susceptibility to infections. A clear link was shown between HIV-1, chronic inflammation and cancer. HIV proteins themselves "are in a position to affect 'innocent' bystander cells, to cause the propagation of (pre)existing malignant and malignant transformation of normal epithelial cells," he warned. HIV and lung cancer was said to be "a complex interaction." Lung cancer remains elevated in people with HIV many years after they stop smoking. Hepatocellular carcinoma is likely to be the third most common cancer in people with HIV by 2030. Among people with HIV, colorectal cancer is diagnosed at a younger age and with higher mortality rates, while breast cancer may occur up to 20 years earlier than in the general population. Prostate cancer is the leading cancer diagnosis among men with HIV but incidence is similar to that of the general male population. There is a slightly increased risk of melanoma among people with HIV and a need for patient education around other skin cancers. Screening, chemotherapy and smoking cessation were all discussed, as was the role played by Ritonavir in cancer therapy. He concluded that it is important to treat underlying health conditions that increase the risk of cancer for people with HIV, and to remain up to date with all relevant cancer screening recommendations and guidelines.

**Body weight increase and adipose tissue** were then considered by **Jacqueline Capeau (France)**. She opened with thoughts on different types of adipose tissues (body fat) in humans. This meant looking at "different locations, different compositions, and different functions" of the fat. For instance, upper and lower body fat repartition leads to the popular descriptions of android (apple shape) and gynoid





(pear shape) bodies. Fat on the lower limbs and buttocks (gluteofemoral fat), the pear shape, is generally protective against cardiometabolic risk, while the apple shape (truncal fat) is less favourable. Gluteofemoral fat tends to spread to the truncal region with age. This led to consideration of brown/beige fat and its redistribution according to age, as well as its links with energy levels and health. Obesity, based on Body Mass Index, was then discussed. A map of the world showed the "obesity pandemic" as illustrated by the prevalence of obesity in 2021 in men. The Persian Gulf region was shown to have highest rates of obesity, and South-East Asia the lowest. "The cardiometabolic risk associated with abdominal obesity" causes health problems including Type 2 diabetes, liver disease, and osteoarthritis. However, the BMI definition is not enough to assess cardiometabolic risk, with very muscular bodies technically classed as obese - but with low risk of heart disease. Waist circumference may be a better metric and is in included in a new definition of obesity proposed by the European Association for the Study of Obesity. Weight gain with antiretrovirals, the reversion of weight gain, and weight-loss strategies were then considered each in turn. Weight gain is strongly associated with the severity of initial HIV disease, and evolution of fat is associated with the evolution of ART. Truncal body fat repartition and the associated increase in cardiometabolic risk are linked to first generation protease inhibitors. Risk factors associated with weight gain in people with HIV include sex, race, age and lifestyle factors, as well as ART regimes and the "unique physiology" of HIV itself. Even modest weight loss may be beneficial as it reduces the waist circumference. Weight loss and gain associated with various HIV treatments were presented. As for the general population, the best way to manage weight may be to adopt a Mediterranean diet and an active mode of life, but in people with HIV the reversibility of weight loss after drug discontinuation also needs to be considered. She concluded that, in people with HIV, obesity is the result of numerous factors. It is important to address obesity to prevent and improve long-term complications, and while "lifestyle modifications" should be favoured, new anti-obesogenic drugs, such as antidiabetic medications, will also be important.

#### **DAY IV**

The fourth day of the Summer School hosted three morning presentations, followed by working groups and a closing presentation with discussion. Research and clinical workshops on this date considered: Sample size calculations and data analysis, Hepatology, Sample size calculations, Data analysis and completion of presentations, and Opportunistic infections.

**Opportunistic infections** were also the subject of the first presentation, by **Sanjay Pujari (India)**. This plenary session set out the problem itself, before focusing in on mycobacteria, fungi, viruses and protozoa. AIDS is at a crossroads, he warned, explaining that even through new HIV infections and AIDS-related deaths have been on a downward trend for about 20 years, "a person dies from AIDS-related causes every minute." The percentage change in the annual number of AIDS-related deaths has been negative since 2010 for every world region - except for Eastern Europe and Central Asia, which has seen a 34% increase over the period. The percentage of





people who know their HIV status is also well below the UNAIDS target of 95% for most EU/EEA countries, as is the percentage of people on treatment. Trends in the estimated TB incidence rate show no signs of falling further since 2020. He gave a detailed overview of research and trails into TB among people with HIV. This was followed, for instance, by a close look at case of Cryptococcosis fungal infections in France, where there were 1,107 reported cases at 132 hospital centres between 2005 and 2020. Consideration was then given to treatments, including their side effects, acceptability, and cost. Annual incidence of Pneumocystis pneumonia in France 2013 to 2019 found an increase in the number of hospitalised cases, but HIV-infected patients had a lower mortality rate than non-HIV-infected patients. He turned to Latin America and Africa for data on the prevalence of Histoplasma antigenuria in people with HIV. The data helped identify populations that might benefit from systematic screening for histoplasmosis as part of an HIV package of care, suggesting that the "highest yield screening programme" would include people with advanced HIV disease. In summary, as well as welcoming "remarkable progress in TB therapeutics and prevention," it is vital to recall that early diagnosis and linking to care are key to prevent all opportunistic infections. "Opportunistic infections are forgotten, but not gone," he reminded participants.

A UK review of mortality in people with HIV in 2020 found that liver disease was the cause of death in 2% of cases, said Sanjay Bhagani (United Kingdom), in a presentation about Management of liver disease in people living with HIV. This compares with 3% for respiratory disease and 28% for non-AIDS infections and was equal across men and women patients. He gave an overview of HIV-associated immune activation and liver disease, followed by key results of the START liver fibrosis study. The incidence of chronic hepatitis B (HBV) infection in children under five years of age had fallen from 4.7% to 1.3% by 2017, thanks to immunisation, but 257 million people were living with the disease in that same year. He looked at, for instance, the four phases of chronic HBV infection, and at the EACS Guidelines 2023 for HBV/HIV co-infection. Studies and research into drug resistance were presented in detail, alongside WHO guidelines from 2024, which recommend the treatment of all people aged over 12. HIV and HCV are "double trouble for the liver," contributing to multiple organ dysfunction. WHO has set ambitious global targets to control viral hepatitis by 2030 and a first step for 'micro-elimination' is managing recently acquired HCV. There is compelling data that TasP works, with a more than 50% reduction in the incidence of acute HCV infection, but incidence seems now to be plateauing out. Non-alcoholic fatty liver disease, also known as metabolic dysfunction-associated fatty liver disease, can be managed by a combination of approaches, including diet, exercise, and monitoring. In conclusion, although liver disease remains an important (but diminishing) cause of morbidity and mortality in people with HIV, there is a need for improved cascade of care and access to prescriptions, to make elimination possible.

Key sources of bias and tips on what to look for in a paper was the subject of the final plenary session. Anders Boyd (Netherlands) explained that "Many of the limitations of studies, particularly observational studies, are related to the potential for bias to occur." Bias, he added, occurs when there is a systematic difference





between the results from a study and the true state of affairs. Bias is often, but not always, introduced at an early study stage, and cannot be completely removed by appropriate statistical methods or by increasing the sample size. Instead, he said, "we need to ensure that the sample we include in the study is representative of the population to which the results will be applied." In addition to this representative sample, it is important to consider the consequences of missing data, which are of more concern to cohort studies than to RCTS. Missing data can introduce bias. Attrition bias, meanwhile, occurs when the people who are lost-to-follow-up in a longitudinal study differ in a systematic way from those who are not lost. This can be particularly difficult to deal with if the people who drop out of the study are the sickest patients. Confounding bias "occurs when a spurious association arises due to a failure to fully adjust for factors related to both the risk factor and outcome," and must be carefully dealt with through measured statistical methods. He also briefly touched on the importance of observer bias, under which for instance individuals change their behaviour because they know they are in a study, and survivorship bias, which is likely when people must survive to benefit from an intervention. He concluded with guidance on reporting and a reminder that "During analysis, it is important to question whether bias may have been introduced at any stage."

As the last scheduled speaker of the five-day event, Asier Sáez-Cirión (France) looked at the possibility of an HIV cure. The introduction of HAART raised hope for HIV eradication, he said, but it soon became clear that "viral rebound occurs within days of treatment interruption." The search for an HIV cure now focuses on targeting HIV reservoirs. This will require a combined strategy to reduce and restrain reservoirs, steadily bringing down immune activation and chronic inflammation, along with strategies targeting the viral reservoir efforts to kill infected cells, and to repress or remove the provirus. New mechanisms to eliminate infected cells "tilt the balance" towards cell death. Strategies seeking to reinforce host barriers meanwhile include therapeutic vaccines, immune modulators, adoptive therapies, and inducing intrinsic resistance. This was followed by a look at stem cell transplant, potentially "as close to HIV cure as we may be." A dramatic reduction of viral reservoirs was observed in all cases of stem cell transplant. It is not an infallible solution, with viral rebound observed in several cases - although rebound "does not preclude subsequent viral control." Markers and tools informing HIV cure research were then presented, as well as a move towards personalised medicine. He looked at the encouraging case of Romuald, known as the "Geneva patient," who, following an HIV diagnosis in 1990, began ART in 2005 and reported continuous viral suppression. He stopped ART in November 2021 and has experienced 44 months of undetectable viraemia without ART. "Most people with natural or post-treatment control do not show signs of progression, maintain viral control and do not have increased risk for clinical co-morbidities," the speaker said. However, even people experiencing some form of viral control still face uncertainty about the future and about their own status, as well as the stigmatisation associated with the general population of people with HIV.





#### DAY V

On this final day of the EACS Summer School 2025, participants presented the outcomes of their week-long work. The morning began with clinical participants engaging in structured debates on key and sometimes controversial topics in HIV care, such as long-acting PrEP and HIV status disclosure. Each topic was explored through arguments both in favour and against, delivered by the participants themselves. Following the debates, the whole group voted on the strength and clarity of the presentations.

After this, research module participants presented six innovative project proposals developed during the week. Each group outlined a potential study, applying methodologies and insights gained throughout the course. These presentations reflected a strong grasp of research design, data interpretation, and critical thinking.

To conclude, participants and faculty voted on which project they would be most inclined to fund, simulating a real-world grant evaluation process. The day wrapped up with a joint session summarising key take-home messages, followed by closing remarks and a farewell lunch.





## 3. Key Statistics to Highlights from the Report

An evaluation questionnaire was sent to participants at the end of the conference.

Respondents were asked to evaluate how useful EACS Summer School 2025 had been for their professional activities, with 100% agreeing that the event was useful. Some 84.4% "strongly" agreed. By the end of the five-day event, 100% of participants also said they would definitely recommend the HIV Summer School to their colleagues.

Overall, 95.3% of respondents reported that the event fully met their educational goals and expected learning outcomes, while just 4.7% said it met them somewhat. At the same time 100% agreed that the information provided was well-balanced and consistently supported by a valid scientific base.

A large majority of 81.3% strongly agreed that the content was useful for their practice, with 18.8% agreeing. Moreover, 87.5% said that the information from the conference would be "very much" implemented in their practice, while 12.5% indicated it would be implemented "somewhat."

More than three-quarters of respondents believed their office and practice could accommodate these changes. However, less than 50% felt that patients would be able to do so. Notably, 100% said the course would be useful for their professional activities, with 84.4% rating it as extremely useful. At the same time, 46.9% agreed or strongly agreed that patient access to treatments could represent a barrier to implementing changes.

The course's greatest strength was said to be the interaction with faculty and peers from diverse countries, fostering rich exchanges of experiences and practices. Participants especially valued the interactive workshops, case discussions, and state-of-the-art updates, which combined practical clinical insights with the latest scientific knowledge.

Overall, the event was widely praised as being a well-organised and inspiring learning experience that strengthened both professional skills and international connections. Some 96.8% of respondents said the EACS secretariat's work was excellent, with the rest opting for good.

Most participants reported no negative aspects, though a few suggested improvements such as shortening or restructuring the intensive schedule, balancing the research track with more clinical discussions, and providing additional support through practical sessions on publishing, more diverse faculty perspectives, or deeper exploration of local contexts.

Alongside this constructive criticism, when it came to the programme as a whole, 100% of participants said their overall impression of the event was "excellent" or "good."





# Overview of key statistics

Order or sections:

- Relevance of the event
- Impact
- Quality of the event
- Modules
- Commercial bias
- Additional questions

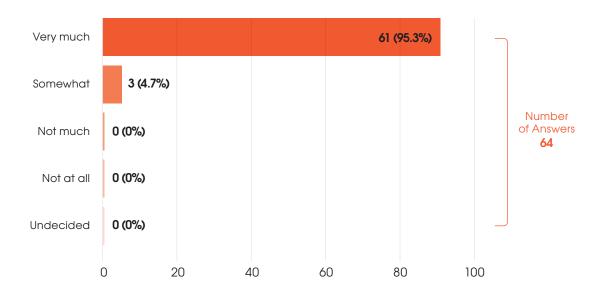




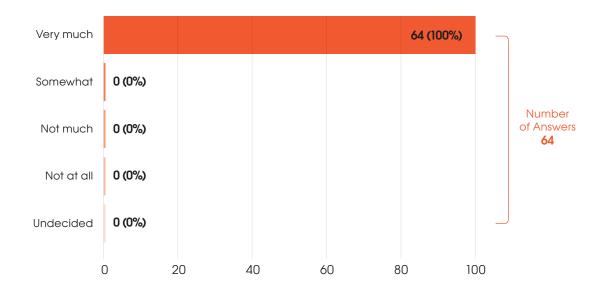


#### RELEVANCE OF THE EVENT

1. Did the event fulfil your educational goals and expected outcomes?

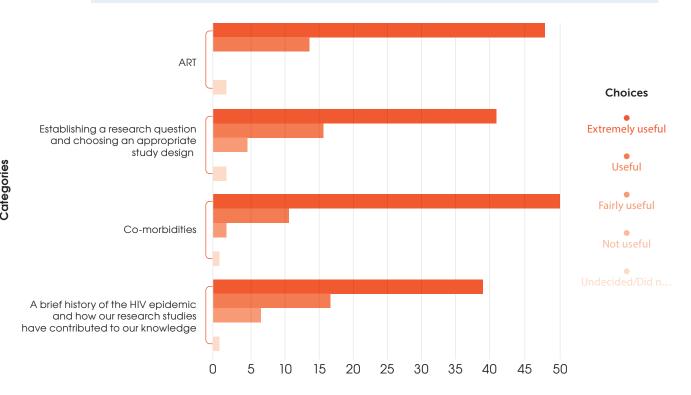


2. Was the presented information well-balanced and consistently supported by a valid scientific evidence base?

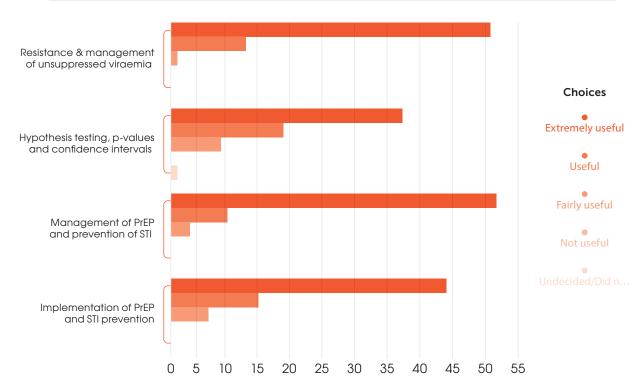




3. How useful to you personally was each session on Monday, 1 September?

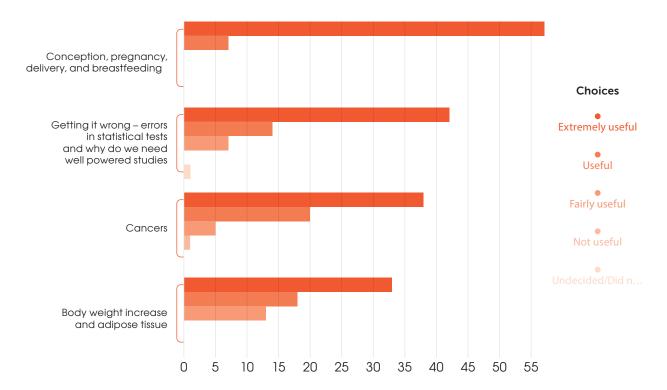


4. How useful to you personally was each session on Tuesday, 2 September?

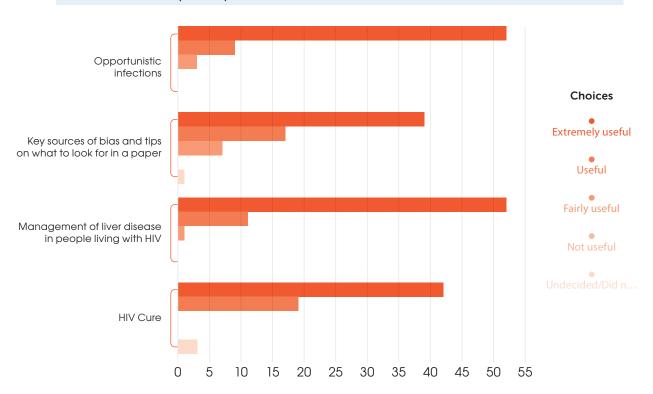




# 5. How useful to you personally was each session on Wednesday, 3 September?



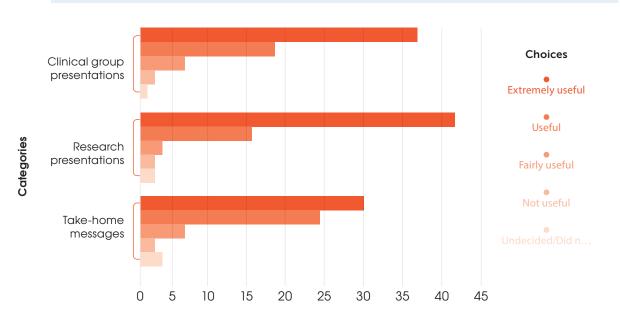
6. How useful to you personally was each session on Thursday, 4 September?



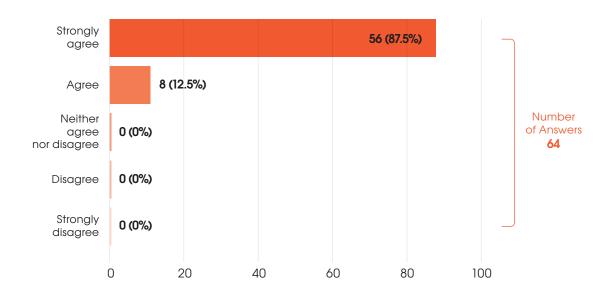




# 7. How useful to you personally was each session on Friday, 5 September?



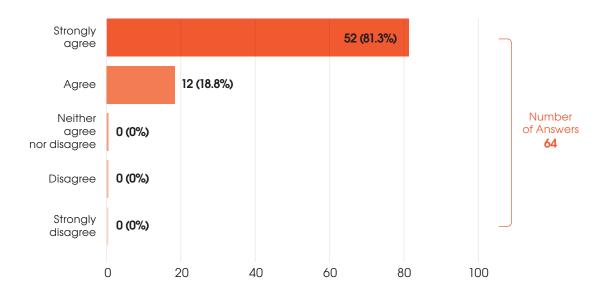
### 8. Was the content presented clearly?



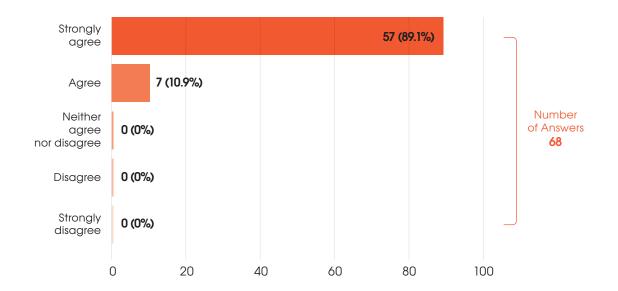




## 9. Was the content useful for your practice?



# **10.** Was there adequate time available for discussions, questions & answers and learner engagement?







### 11. Can you indicate any innovative elements during the activity?

The small groups workshops were very interactive and very helpful to both extende your own network as well for working.

I enjoyed the opportunity to interact with the faculty at multiple points both in the lectures and outside of it.

The guest plenaries were superb; the end of the day discussions were fantastic.

I loved the case discussion rounds.

Really enjoyed having plenary sessions on both clinical and research topics.

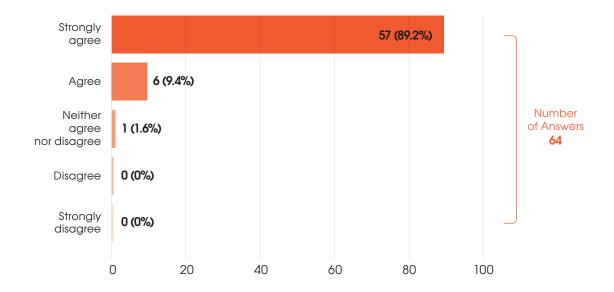
Really enjoyed presentation by Christine Katlama and the individual experiences of those of faculty during the 1980's and 1990's - these arehistorically important events that those of us treating HIV now need to be able to remember to understand our patients experience and thestigma surronding HIV. Also really enjoyed the debate.

Total Responded 15





# 12. Was this educational activity well planned and presented?

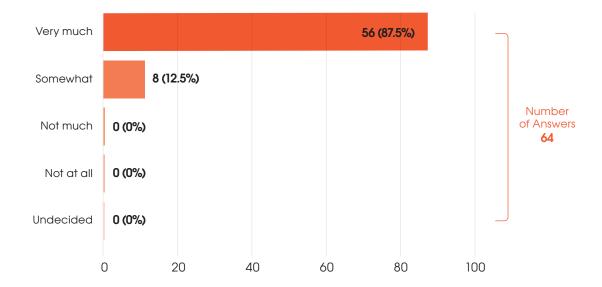






### **IMPACT**

1. Will the information you learnt be implemented in your practice?







2. Can you provide one example how this event will influence your future practice?

Statin indication, ART decisions regarding HepB, weight gain considerations, when to switch or not switch ART, etc.

Diagnosing the opportunistic infections was very enlightening and will be discussed in our clinic.

I am a PhD researcher. The research lectures will infl uence my ability to design and read studies, while the clinical plenaries will help me be morewell-rounded in my understanding of the epidemic and of the work carried out by clinician colleagues.

I may switch people with weight gain more rapidly, increase offer of statins particularly in women.

Developing a research

Will base my practices in many of the new content I got.

ART regimen consideration in menopause/aging.

How to manage cases with low unsuppresed viraemia.

As a clinician with focus on clinical research, lessons learned during this event will help me implement high quality research by formulatingaccurate research questions, using the best methods, suitable statistical analysis and correct interpretation

To decide wich ART use, to think about the comorbidities.

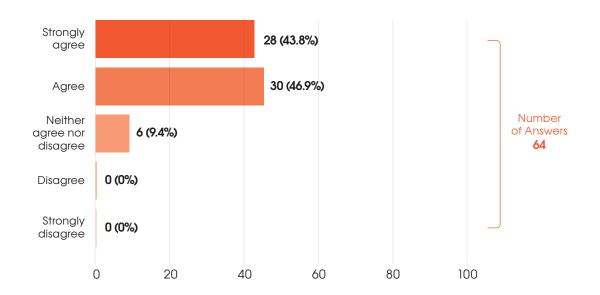
A lot of clear guidelines.

Total Responded 36

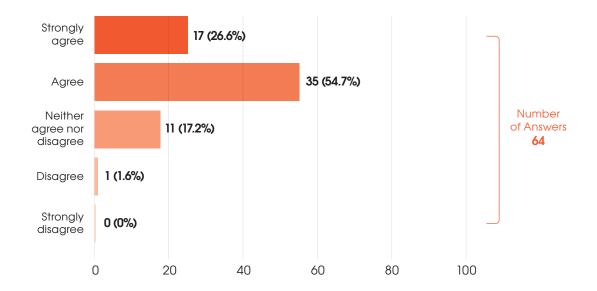




3. Do you intend to modify/change your clinical practice based on this educational activity?



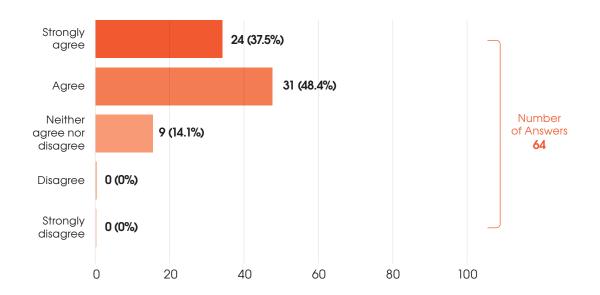
4. Can your office and practice systems accommodate these changes?



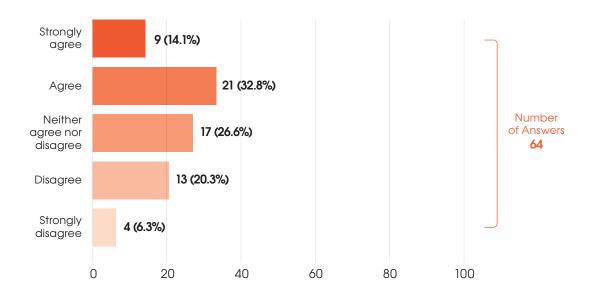




## 5. Can your patients accommodate these changes?



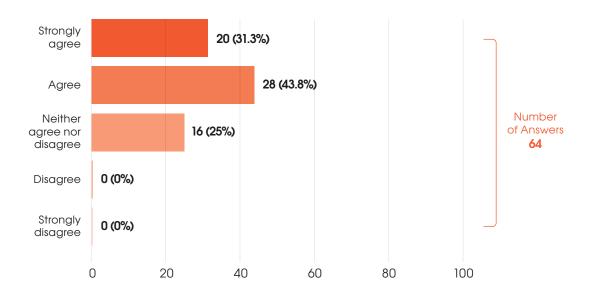
# 6. Will patient access to the treatments provided be a barrier to implementing these changes?







7. On average, how did you utilise the patient treatment strategies described in this educational activity prior to your participation?

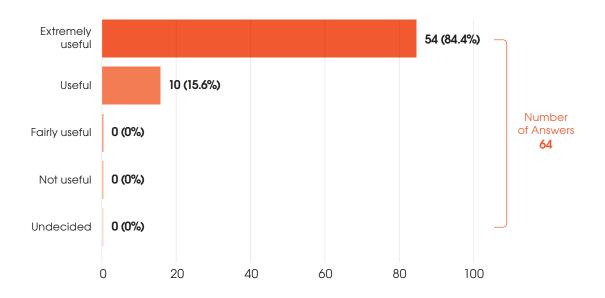




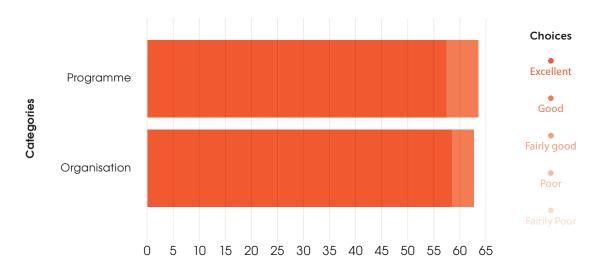


#### **QUALITY OF THE EVENT**

1. How useful for your professional activity did you find this event?



### 2. What was your overall impression of this event?







3. What was the best aspect of this event? What did you find most useful for your professional activity? Why?

The most interesting aspect of the event was to exchange ways of doing things and solve the same problems in different settings. It was also goodto have the latest uptdates of the new guidelines.

The interactive nature of the event.

I really enjoyed the research module. The content and delivery was top notch.

I really enjoyed the mix of clinical and research talks and the possibility to meet and talk to the faculty as well as the other participants from allover the world. This was really an excellent opportunity.

I#d also like to say that the whole organisation of the event was excellent!

The international nature of it - amazing to meet so many people from other healthcare settings / cultures.

Level of knowledge of the faculty and ability to share knowledge.

Beyond the formal training, the standout value was the peer network. I met colleagues from many countries and exchanged technical and practicalideas about settings very different from mine yet similar in key constraints. Those conversations broadened my perspective and gave meadaptable, real-world solutions—an experience that genuinely enriched me.

I really appreciated the plenary on body weight increase, a strong issue in my daily practice. So it will help a lot to manage that.

Exciting to hear many clinical experienced that have prove best clinical outcomes ever. Best treatment strategies have been shown when it comesto switch and now I am convinced I will implement it in my settings.

All was great, lets repeat.

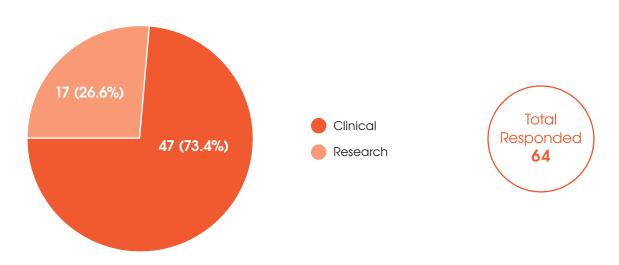
> Total Answers 64



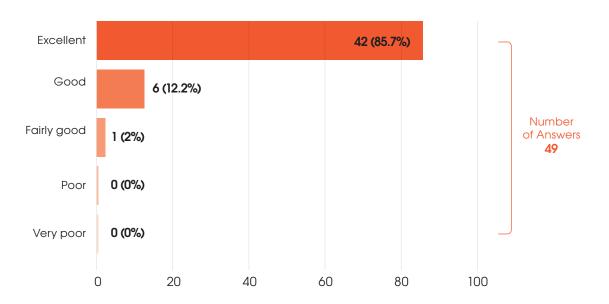


#### **MODULES**

## 1. Which module did you follow?



## 2. How well did your working group meet your expectations?

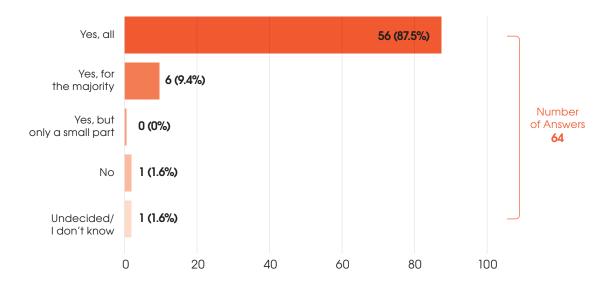




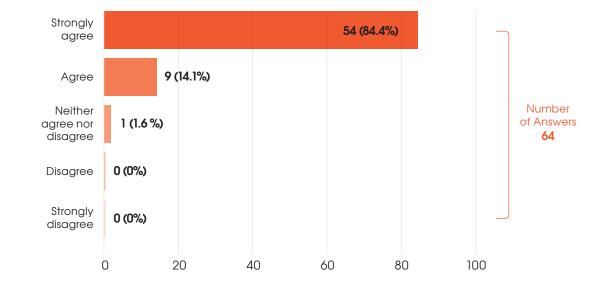


#### **COMMERCIAL BIAS**

1. Did all the faculty members provide their potential conflict of interest declaration with the sponsor(s) as a second slide of their presentation?



2. Was this activity free of commercial bias for or against any product?







#### **ADDITIONAL QUESTIONS**

1. Do you have any anecdotes or stories you would like to share about your time at the HIV Summer School?

I very much enjoyed the singing in the bus on our way home - it was a lot of fun but also was such a strong reminder of how despite being fromdifferent countries with different circumstance everyone is working together with the same goal.

The HIV summer school is the best educational experience I have been on during my time as a dcotor. I feel priviledged to have been able to havebeen part of this experience. I have learnt a lot clinically but most importantly have made some great professional and personal friends. I have hadmy passion for my job reignited and ready to work hard to overcome barriers to ensuring all people living with HIV have the same quality of lifeand mortality as those who are not.

One of the best parts of the Summer School was the warm and genuine engagement of the faculty with us as participants. Despite their globalexpertise, they created an atmosphere where questions were welcomed, ideas were debated openly, and every student's perspective was valued, guiding discussions rather than lecturing. That humility and openness not only made the learning more enjoyable but also built my confidence to share my own experiences from Tanzania.

It felt less like a formal course and more like a community of practice, united by the shared goal ofimproving HIV care.

Poster activity was the best!! I loved to see HIV environment of other

Total Responded 16





2. How do you evaluate the work of the EACS Secretariat in charge of your participation in the course?



3. How do you evaluate information provided about your travel and accommodation?



4. Would you recommend the HIV Summer School to your colleagues?







# 4. Programme Agenda

Sunday, 31 A	Sunday, 31 August 2025			
All day	All day Arrival participants and faculty			
19:30 Arrival dinner and introduction of faculty and participants				

Monday, 1 September 2025				
Morning				
Time	Session	Туре	Title & speaker	
8:20	Opening		Welcome	
8:30 - 9:00	Morning Plenary 1	Clinical	ART	
			Nicola Mackie (United Kingdom)	
9:00 - 9:30	Morning Plenary 2	Research	Establishing a research question and choosing an appropriate study design	
			Anders Boyd (Netherlands)	
9:30 - 10:00	Morning Plenary 3	Clinical	Co-morbidities	
			Paddy Mallon (Ireland)	
10:00 - 10:30	Panel discussion + Q&A	Clinical and Research		
10:30 – 11:00	Coffee break			
11:00 - 13:00	Module A	Research	Study design	
			Anders Boyd (Netherlands) Tracy Glass (Switzerland) Caroline Sabin (United Kingdom	
	Module B	Clinical	Working groups (3 groups)  ART Management 1	
			Sanjay Bhagani (United Kingdom) Agnès Libois (Belgium) Nicola Mackie (United Kingdom) Paddy Mallon (Ireland) Esteban Martínez (Spain) Romain Palich (France)	
13:00 - 14:00	Lunch break			





Time	Session	Туре	Title & speaker
14:00 - 16:00	Module A	Research	Working groups (3 groups) Identifying the research question and study design
			Anders Boyd (Netherlands) Tracy Glass (Switzerland) Caroline Sabin (United Kingdom)  Jose Bernardino (Spain) Paddy Mallon (Ireland) Romain Palich (France)
	Module B	Clinical	Working groups (3 groups)  ART Management 2
			Juan Ambrosioni (Spain) Sanjay Bhagani (United Kingdom) Yvonne Gilleece (United Kingdom) Christine Katlama (France) Nicola Mackie (United Kingdom) Esteban Martínez (Spain)
16:00 – 16:30	Coffee break		
16:30 - 17:30	Afternoon discussion Session 1		A brief history of the HIV epidemic and how our research studies have contributed to our knowledge
			Christine Katlama (France)
19:00 – 22:00	Poster walk		





Tuesday, 2 September 2025				
Morning				
Time	Session	Туре	Title & speaker	
8:30 - 9:00	Morning Plenary 4	Clinical	Resistance & management of unsuppressed viraemia	
			Romain Palich (France)	
9:00 - 9:30	Morning Plenary 5	Research	Hypothesis testing, p-values and confidence intervals	
			Tracy Glass (Switzerland)	
9:30 - 10:00	Morning Plenary 6	Clinical	Management of PrEP and prevention of STI	
			Agnès Libois (Belgium)	
10:00 - 10:30	Panel discussion + Q&A	Clinical and Research		
10:30 - 11:00	Coffee break			
11:00 - 13:00	Module A	Research	Collecting data	
			Anders Boyd (Netherlands)	
			Tracy Glass (Switzerland)	
			Caroline Sabin (United Kingdom)	
	Module B	Clinical		
	Module B	Clinical	Working groups (3 groups) Sexual and reproductive health	
	Module B	Clinical		







14:00 - 16:00	Module A	Research	Working groups (3 groups)  Developing the study protocol  Anders Boyd (Netherlands)  Tracy Glass (Switzerland)  Caroline Sabin (United Kingdom)  Jose Bernardino (Spain)  Paddy Mallon (Ireland)  Romain Palich (France)
	Module B C	Clinical	Working groups (3 groups)  Management of unsuppressed viraemia/resistance
			Sanjay Bhagani (United Kingdom) Yvonne Gilleece (United Kingdom) Christine Katlama (France) Nicola Mackie (United Kingdom) Esteban Martínez (Spain) Sanjay Pujari (India)
16:00-16:30	Coffee break		
Time	Session	Title & speaker	
16:30 - 17:30	Afternoon discussion session 2	Implementation of PrEP and STI prevention	
		Yvonne Gilleece (United Kingdom) Anders Boyd (Netherlands)	





Wednesday, 3 September 2025				
Morning				
Time	Session	Туре	Title & speaker	
8:30 - 9:00	Morning Plenary 7	Clinical	Conception, pregnancy, delivery, and breastfeeding	
			Yvonne Gilleece (United Kingdom	
9:00 - 9:30	Morning Plenary 8	Research	Getting it wrong – errors in statistical tests and why do we need well powered studies	
			Caroline Sabin (United Kingdom)	
9:30 - 10:00	Morning Plenary 9	Clinical	Cancers	
			Stéphane De Wit (Belgium)	
10:00 - 10:30	Panel discussion + Q&A	Clinical and Research		
10:30 - 11:00	Coffee break			
11:00 - 12:00	Guest lecture	Body weigh	t increase and adipose tissue	
		Jacqueline	Capeau (France)	
12:00 - 13:00	Lunch break			

Thursday, 4 September 2025				
Morning				
Time	Session	Туре	Title & speaker	
8:30 - 9:00	3:30 - 9:00 Morning Plenary Clinical	Clinical	Opportunistic infections	
	10		Sanjay Pujari (India)	
9:00 - 9:30	Morning Plenary 11	Research	Key sources of bias and tips on what to look for in a paper	
			Anders Boyd (Netherlands)	
9:30 - 10:00	Morning Plenary 12	Clinical	Management of liver disease in people living with HIV	
			Sanjay Bhagani (United Kingdom)	
10:00 - 10:30	Panel discussion + Q&A	Clinical and Research		
10:30 - 11:00	Coffee break			





11:00 - 13:00	Module A	Research	Sample size calculations and data analysis
			Anders Boyd (Netherlands)
			Tracy Glass (Switzerland)
			Caroline Sabin (United Kingdom)
	Module A	Research	Working groups (3 groups) <b>Hepatology</b>
			Juan Ambrosioni (Spain)
			Jose Bernardino (Spain)
			Sanjay Bhagani (United Kingdom)
			Yvonne Gilleece (United Kingdom)
			Paddy Mallon (Ireland)
			Sanjay Pujari (India)
13:00 - 14:00	Lunch break		
14:00 - 16:00	Module A	Research	Working groups (3 groups) Sample size calculations, data analysis and completion of presentations
			Anders Boyd (Netherlands)
			Tracy Glass (Switzerland)
			Caroline Sabin (United Kingdom)
			Jose Bernardino (Spain)
			Paddy Mallon (Ireland)
			Romain Palich (France)
	Module B	Clinical	Working groups (3 groups) Opportunistic infections
			Juan Ambrosioni (Spain)
			Sanjay Bhagani (United Kingdom)
			Yvonne Gilleece (United Kingdom)
			Christine Katlama (France)
			Agnès Libois (Belgium)
			Sanjay Pujari (India)
16:00-16:30	Coffee break		
16:30 - 17:30	Afternoon	HIV Cure	
	discussion session 3	Asier Saez C	Cirion (France)
19:30	EACS Dinner		





Friday, 5 September 2025				
Morning				
Time	Type Title & speaker			
09:00 - 10:30	Clinical Debates	Clinical groups presentations		
10:30 - 10:45	Break			
10:45-12:15 Research	Research presentations (6 groups)			
	Presentations	The participants from the research module present their research study		
12:15 - 13:15	Clinical &	Take-home messages		
	Research	Sanjay Bhagani (United Kingdom)		
13:15 - 13:30		Closing remarks		
13:30 - 14:30		Lunch and departure		





## 4. Steering Committee Members and the Expert Faculty

#### **Steering Committee**

Sanjay Bhagani United Kingdom Tracy Glass Switzerland

Christine Katlama France

Nicky Mackie United Kingdom
Caroline Sabin United Kingdom

#### **Faculty**

Juan Ambrosioni Spain Jose Bernardino Spain

Anders Boyd Netherlands

Jacqueline Capeau France Stéphane De Wit Belgium

Yvonne Gilleece United Kingdom

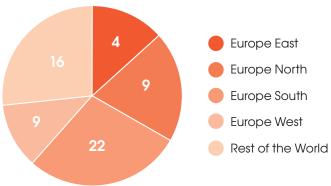
Agnès Libois
Paddy Mallon
Ireland
Esteban Martinez
Spain
Romain Palich
Sanjay Pujari
Asier Sáez-Cirión

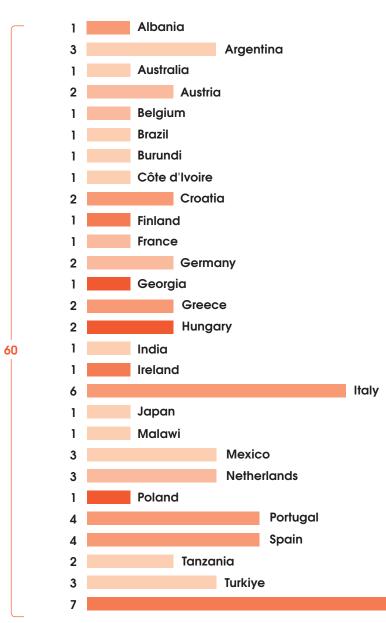
Belgium
Ireland
France
India
France





# 5. Global Spread of Attendees





**United Kingdom** 





# 6. Acknowledgements

The European AIDS Clinical Society would like to thank Gilead Europe, and ViiV Healthcare for their support in part by an unrestricted educational grant. They have no influence on the programme and the organisation of the HIV Summer School.





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