

# HIV 2021

## TRANSMISSION

PRINCIPLES OF INTERVENTION

HYBRID | BETHESDA, MD, USA | 11-12 NOVEMBER 2021

# MEETING PROSPECTUS



# NEEDS STATEMENT WHY SUPPORT THE INTERNATIONAL WORKSHOP ON HIV TRANSMISSION PRINCIPLES OF INTERVENTION 2021?

Human immunodeficiency virus (HIV) has caused one of the greatest global epidemics of modern times and it continues to present a significant health burden for the estimated 37.9 million infected people.<sup>1</sup> High incidence of newly reported infections (1.7 million people estimated in 2018)<sup>2</sup> could be at least in part explained by our limited insights into the virus spread at the molecular and population level. Clinical care for HIV patients has improved immensely in the last few decades, nevertheless, as millions are treated globally for extended periods, the emergence and transmission of drug resistance remain a serious threat to the long-term use of antiretroviral therapy. In this “treat all” era, the scaling-up of ART is expected to increase the prevalence of acquired drug resistance in treated individuals, and consequently, transmitted drug resistance in newly infected individuals.<sup>3</sup>

This highlights a need for effective prevention strategies that critically depend on basic science insights on molecular mechanisms of HIV transmission. A comprehensive understanding of virus-host interaction, population bottlenecks, and phenotypical features of transmitted/founder virus is pivotal to vaccine design and other prevention strategies,<sup>4</sup> and therefore control of the HIV epidemic. The International Workshop on HIV Transmission gathers basic scientists, clinicians, virologists, epidemiologists, and public health officials to present and discuss recent findings in biological and epidemiological aspects of HIV transmission, hence providing a unique platform for cross-disciplinary discussion that ultimately aims to constrain the spread of (drug-resistant) HIV.

#### References:

1. World Health Organization: Global Health Observatory data repository. Number of people (all ages) living with HIV Estimates by WHO region; 2018.
2. UNAIDS, Global HIV & AIDS statistics-2019 fact sheet. <https://www.unaids.org/en/resources/fact-sheet> Accessed: April 26, 2020
3. Clutter DS., et al. HIV-1 Drug Resistance and Resistance Testing. *Infect Genet Evol.* 2016; 46: p292-307.
4. Shaw M. and Hunter E. HIV Transmission. *Cold Spring Harbor Perspective in Medicine.* 2012; 2(11): a006965.

## THE WORKSHOP HAS BEEN ENDORSED BY



Center for  
AIDS Research



## ORGANIZING COMMITTEE

The members of the Organizing Committee (OC) are carefully selected experts and inspirational leaders in their respective fields. They come together on a frequent basis to develop a scientific program tailored to the needs of healthcare professionals in the field. Furthermore, they identify clinical studies and research projects within their organizations/network and review and select abstracts. They actively participate as session chairs and join the Q&A sessions, discussions, and debates during the workshop.



**Charles Boucher**  
MD, PhD

Erasmus Medical Center  
The Netherlands



**Program Chair**  
**James Arthos**  
PhD

NIAID - NIH  
United States



**Program Chair**  
**Walid Heneine**  
PhD

Centers for Disease  
Control & Prevention  
United States



**Eric Hunter**  
PhD

Emory University  
United States



**Phyllis Kanki**  
DVM, DSc

Harvard School of Public Health  
United States



**Gabriela Scarlatti**  
MD, PhD

San Raffaele Scientific Institute  
Italy

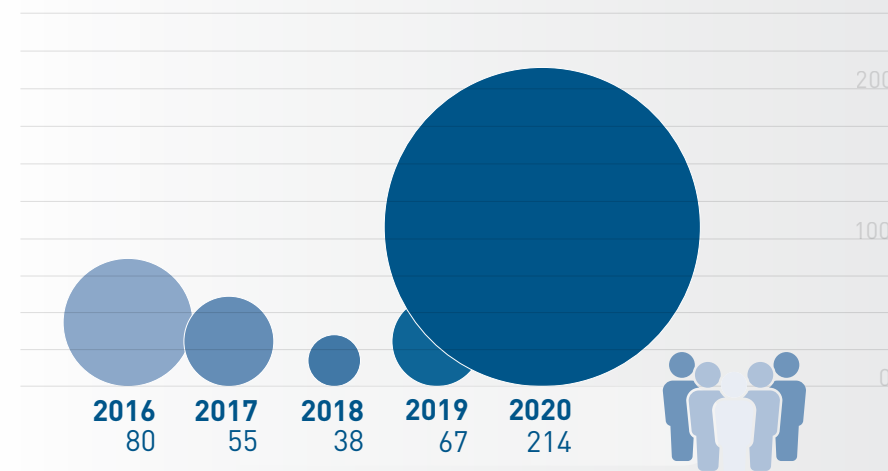


**Thumbi Ndung'u**  
BVM, PhD

KwaZulu-Natal Research Institute  
for Tuberculosis and HIV  
South Africa

# DEMOGRAPHICS

## NUMBER OF ATTENDEES



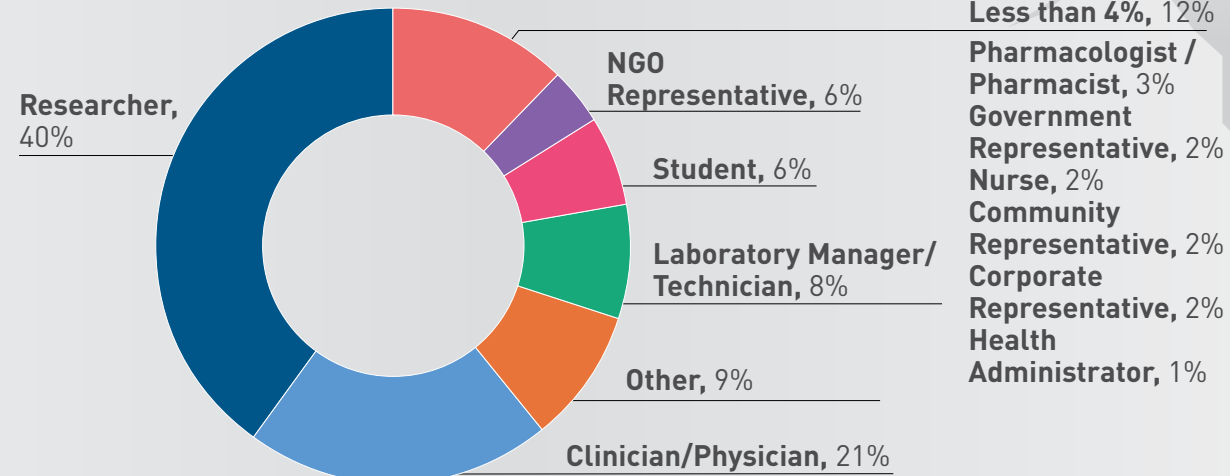
### PERCENTAGE OF RETURNING AND NEW PARTICIPANTS

76% NEW  
24% RETURNING

IN TOTAL **214 PARTICIPANTS** FROM **46 COUNTRIES** ATTENDED THE WORKSHOP IN 2020

## PROFESSIONAL BACKGROUND 2020

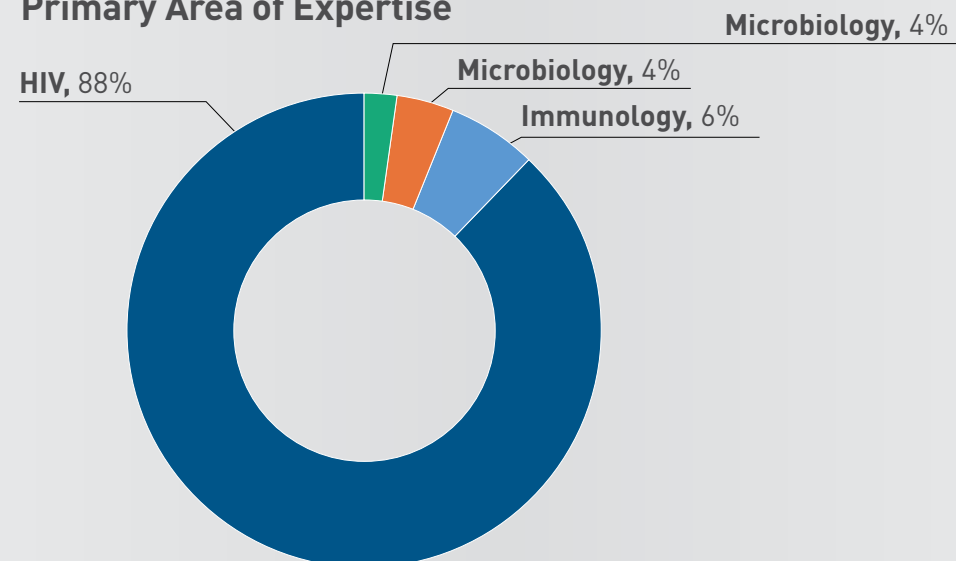
### Occupation



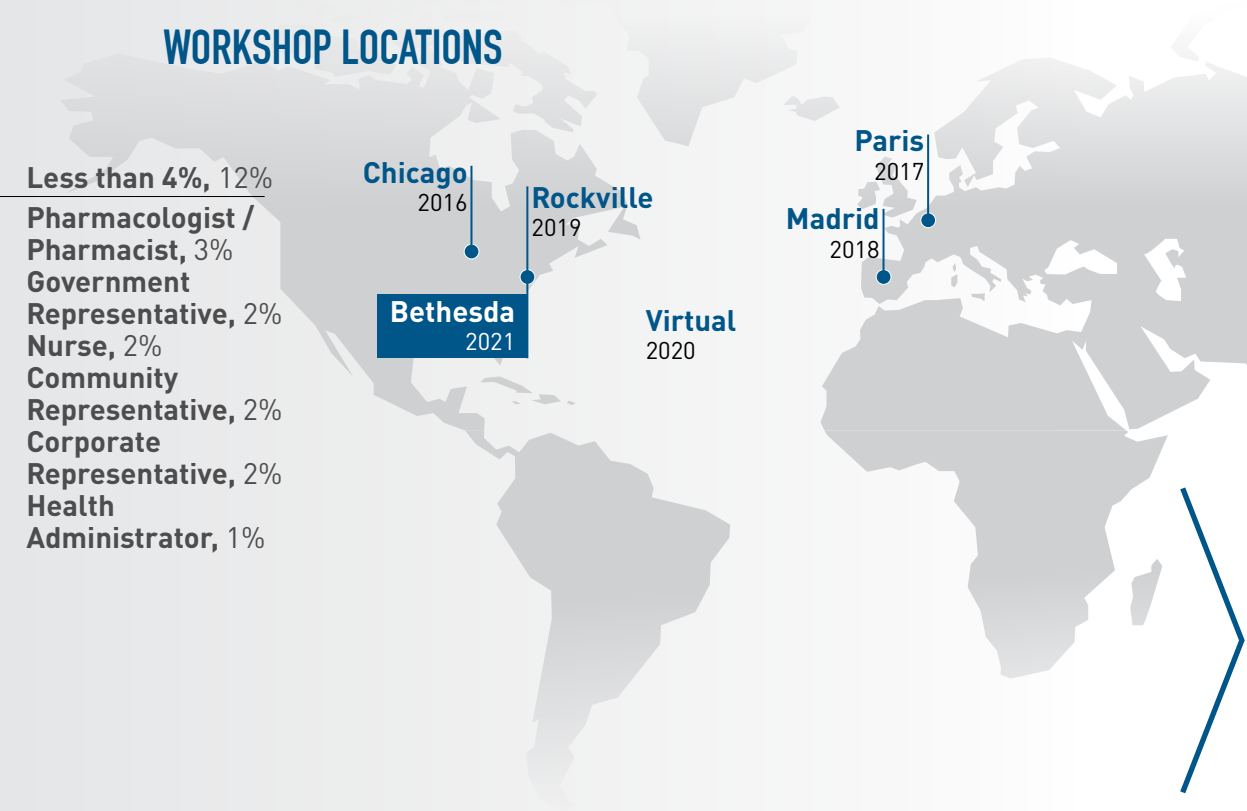
### Prescriber Status



### Primary Area of Expertise



## WORKSHOP LOCATIONS



### Geographical Distribution of Participants in 2020 Edition (Top 5)

United States	81
Canada	8
Nigeria	8
Philippines	8
South Africa	7

# IMPACT

To assess and evaluate the outcomes of this workshop, Virology Education provides each delegate with a feedback form to anonymously assess the relevance of workshop program, speakers' performance, whether the meeting objectives were met, participants' intent to implement acquired knowledge into their practice, and the general organization of the workshop, etc. We encourage participants to share their educational needs and suggestions for future workshop editions, in order to further improve the program and ensure that it matches the needs of participants. The comprehensive evaluation report is available upon request.

## Needs Assessment and Knowledge Gaps

All participants provided their feedback on pre-defined set of identified knowledge gaps in HIV research and care. The following gaps were indicated:

(average between 1 and 10)

Continuous education on ART strategies for prevention and treatment	<b>8.7</b>
Pre-clinical HIV Research	<b>8.4</b>
Approaches to improve the quality of life for people living with HIV	<b>8.5</b>
HIV management in underrepresented populations	<b>8.4</b>
Implementation of innovations in the delivery of HIV care	<b>8.3</b>
Integration of cross-disciplinary care: comorbidities and co-infections	<b>8.2</b>
COVID-19 and its impact on HIV clinical care	<b>8.1</b>

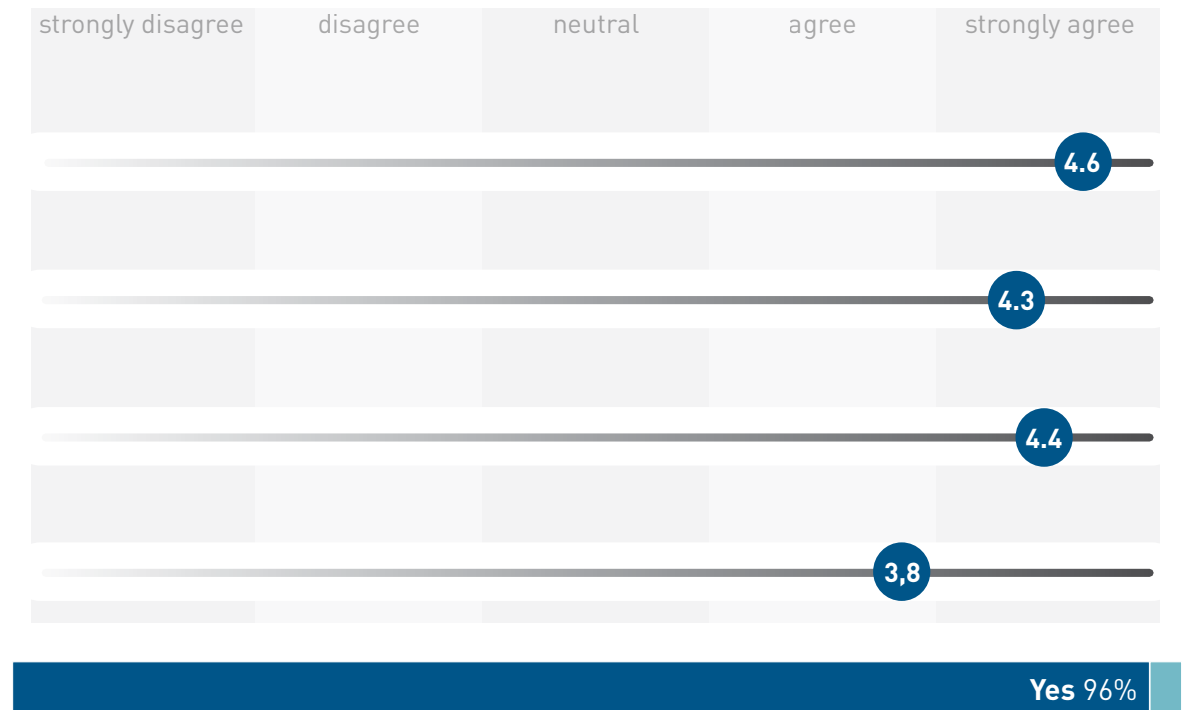
## 2020 EVALUATION RESULTS

1 - 5 scale, 5 = strongly agree

### INTENT TO CHANGE

(weighted average)

- Lectures increased my knowledge
- Program was beneficial
- I intend to incorporate the new information
- I have utilized this information before
- I will be able to implement the knowledge



# PROGRAM

Over the years, advances in HIV treatment have led to an enhanced understanding of the virus and improved care of HIV infected patients. However, our insights into the spread of the HIV virus remain limited. A more extensive exchange of knowledge on the various aspects of HIV transmission provides important perspectives for a better approach to the epidemic. For this purpose, an integrated forum was set up in 2006 to reveal the perspectives of experts from different fields, thereby enabling discussion on all relevant mechanisms of HIV transmission. Since then, the annual Transmission Workshops are valuable to those specialized in HIV transmission.

The program will have a hybrid format to attract a broader audience beyond the workshop walls. It will combine live and virtual components including livestreamed lectures and interactive platforms for real time Q&A sessions, chat rooms, and round-tables.

## Topics

- Ending The HIV Epidemic (EHE) in the US
- Immune Mediated Prevention of HIV Transmission
- Cellular Targets for Transmission
- Animal Models for PrEP and Vaccine

## Format

- Two-Day Workshop
- Abstract-Driven Presentations
- Roundtable discussions

## ENDURING MATERIALS

The workshop program will be freely accessible and widely disseminated to reach virtual participants beyond the walls of the workshop center at the website

[www.AcademicMedicalEducation.com](http://www.AcademicMedicalEducation.com).



## Visitors of the website will have full access to:

- e-abstracts
- e-posters
- Meeting Reports
- Workshop Presentations

## 2020 PROGRAM

### 10 December 2020

#### Session 1 Ending The HIV Epidemic (EHE) in the US

**Introduction for Ending HIV Epidemic in the US: a Plan for America**

**Ending the HIV Epidemic: “Diagnose”. The First Pillar of EHE**

**EHE in the U.S.: Treatment**

**Research Needed to Expand the Use and Effectiveness of PrEP**

**Cluster Detection and Response**

Abstract 1: Evolving Trends in the Spread of HIV-1 in Quebec Among Men-Having-Sex-With-Men and New Migrants to Quebec (2002-2019)

Abstract 2: HIV Trace vs Phylogenetic Analysis: Unraveling Transmission Clusters in Spain

Abstract 3: Dynamics of HIV-1 Transmission Clusters in North and Central Italy Over the Years 2012-2019

#### Session 2 Immune Mediated Prevention of HIV Transmission

**Vaccine Trials - What Went Wrong with the Vaccine Trial (HVTN 702)**

**HIV Prevention and Monoclonal Antibodies**

Abstract 4: Protection Against Repeated Intravenous Shiv Challenges by bNAb 10-1074 and 3BNC117

Abstract 5: Broadly Neutralizing HIV-1 Antibody Reactivity in HIV Tests: Implications for Diagnostics

### 11 December 2020

#### Session 3 Cellular Targets for Transmission

**Early Cellular Targets of HIV Infection**

**Mucosal Involvement in Transmission**

Abstract 6: Lactic Acid Produced by an Optimal Vaginal Microbiota Promotes Cervicovaginal Epithelial Barrier Integrity: Implications for HIV Transmission

Abstract 7: Evaluation of Antiretroviral Drug Exposure in the Penile Compartment

#### Session 4 Animal Models for PrEP and Vaccine

**Macaque Modeling of Antiretroviral Prophylaxis for HIV Prevention**

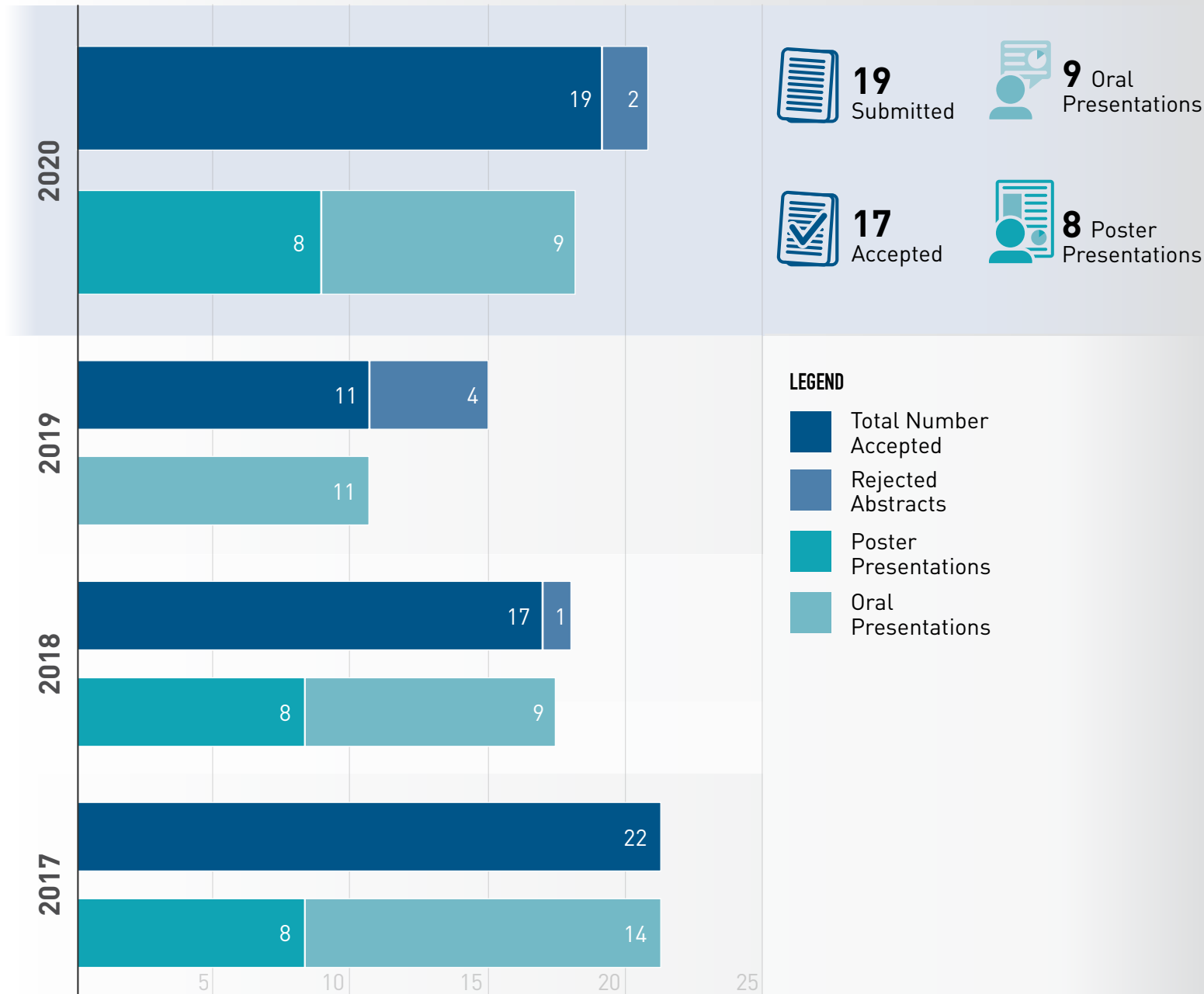
**Potential Role for Tissue Resident Memory T Cells in a Protective Vaccine Against HIV**

Abstract 8: Transmitted Drug Resistance to Integrase Based First-line HIV Antiretroviral Treatment in the MeditRes HIV Collaboration

Abstract 9: PK and PD Relationships of Vaginally Applied Integrase Inhibitors in Macaques

# CONTENT

## ABSTRACTS

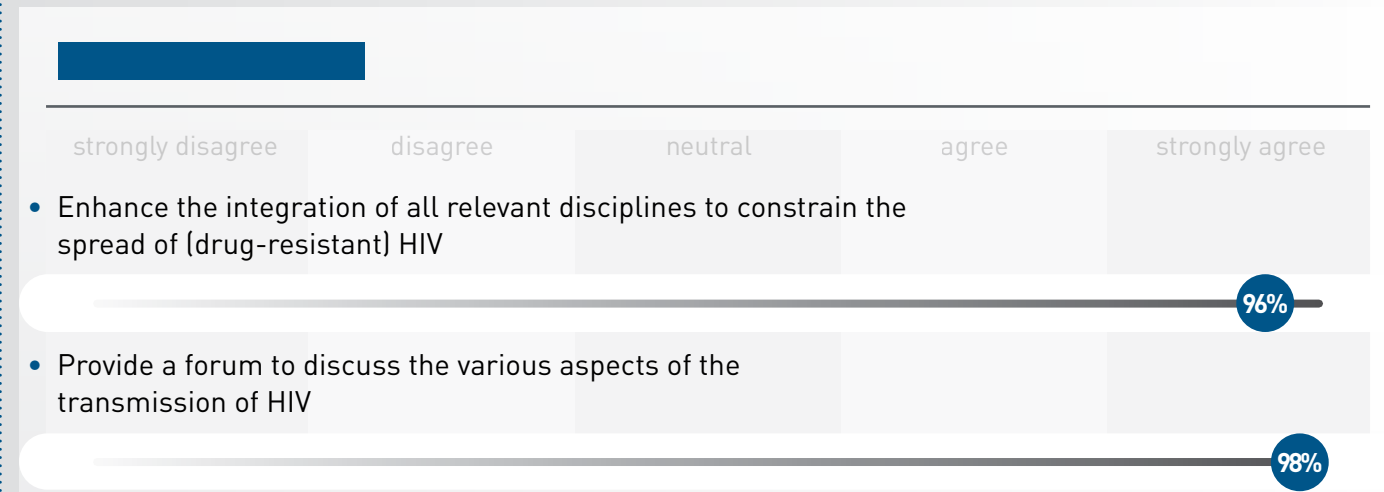


**19** Submitted **9** Oral Presentations  
**17** Accepted **8** Poster Presentations

**LEGEND**  
 ■ Total Number Accepted  
 ■ Rejected Abstracts  
 ■ Poster Presentations  
 ■ Oral Presentations

## OBJECTIVES

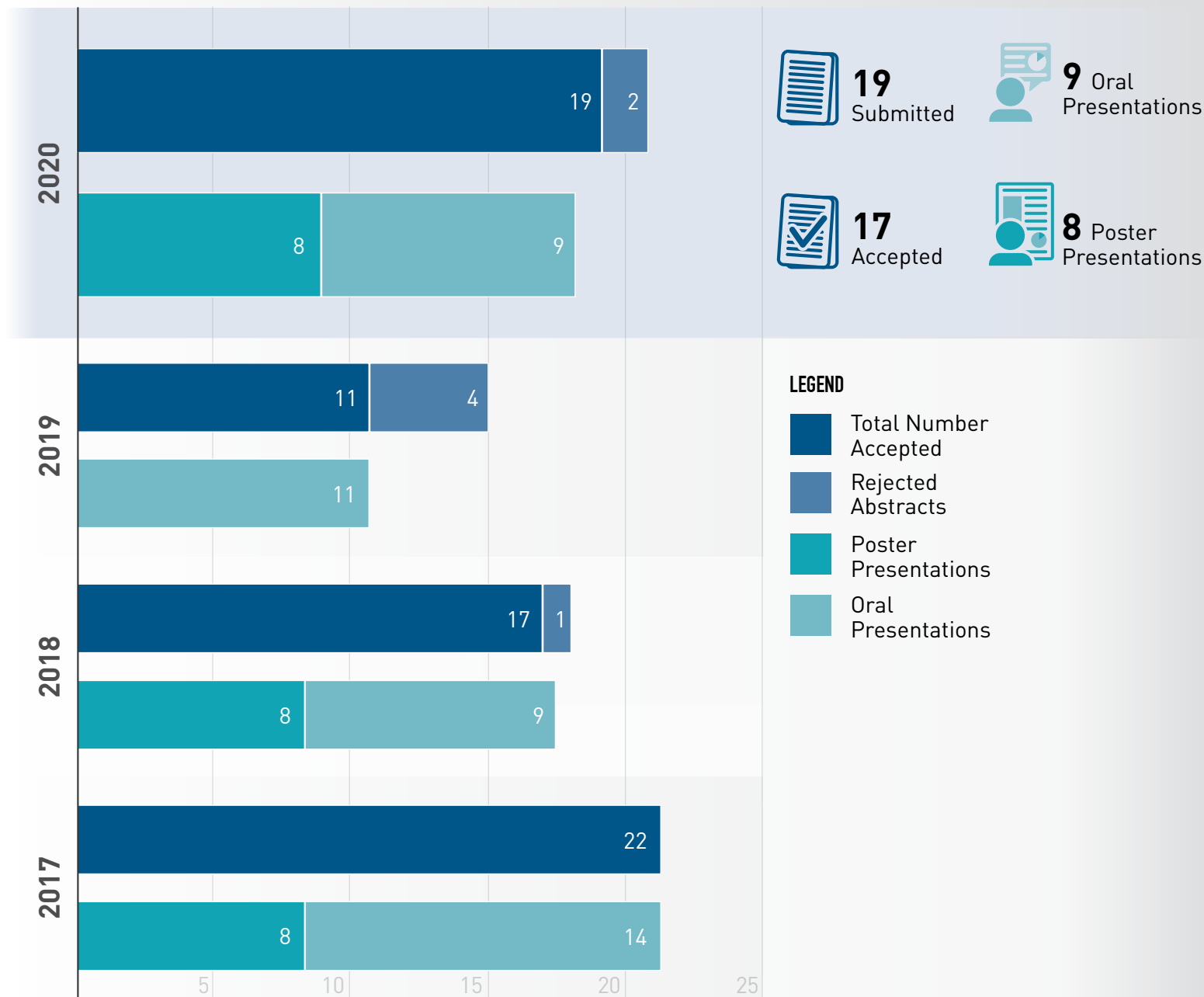
With the percentage of participants that (strongly) agreed that the objective was met in 2020



- Enhance the integration of all relevant disciplines to constrain the spread of (drug-resistant) HIV
- Provide a forum to discuss the various aspects of the transmission of HIV

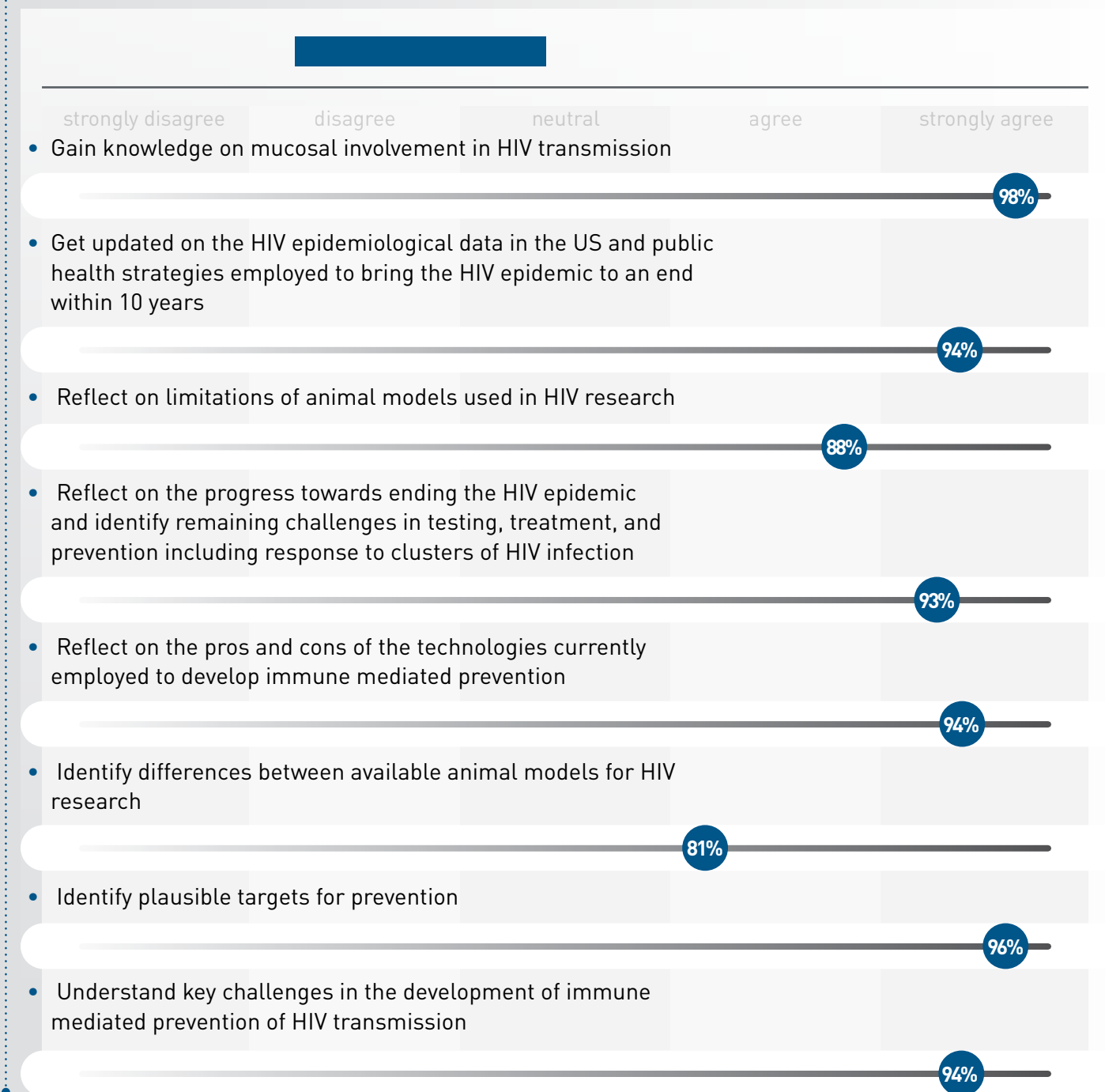
# CONTENT

## ABSTRACTS



## OBJECTIVES

With the percentage of participants that (strongly) agreed that the objective was met in 2020





# OUR REACH

## VIROLOGY EDUCATION

Since 1998, Virology Education has established itself as a leading provider of innovative scientific programs. The core of these internationally recognized meetings encompasses scientific discussion and knowledge sharing in the fields of infectious diseases, pharmacology, liver disease, and more, each with acute tailoring to the needs of healthcare professionals.

With the input of key opinion leaders in their respective areas of expertise, our live and online programs are known for their top-quality content with contemporary blends and delivery formats to enable discussion on the latest data.

## HIV TRANSMISSION 2020

### Social Media

Total Social Media Impressions 5.680

### Newsletters

Subscribers 10.178

### Top 3 Viewed Videos (YouTube)

- **Introduction for Ending HIV Epidemic in the US: a Plan for America** - John Brooks, MD
- **Early Cellular Targets of HIV Infection** - Anthony Cunningham, AO, FAHMS, MD, FRACP, FRCPA
- **Transmitted Drug Resistance to Integrase Based First-Line HIV Antiretroviral Treatment** - F. Garcia



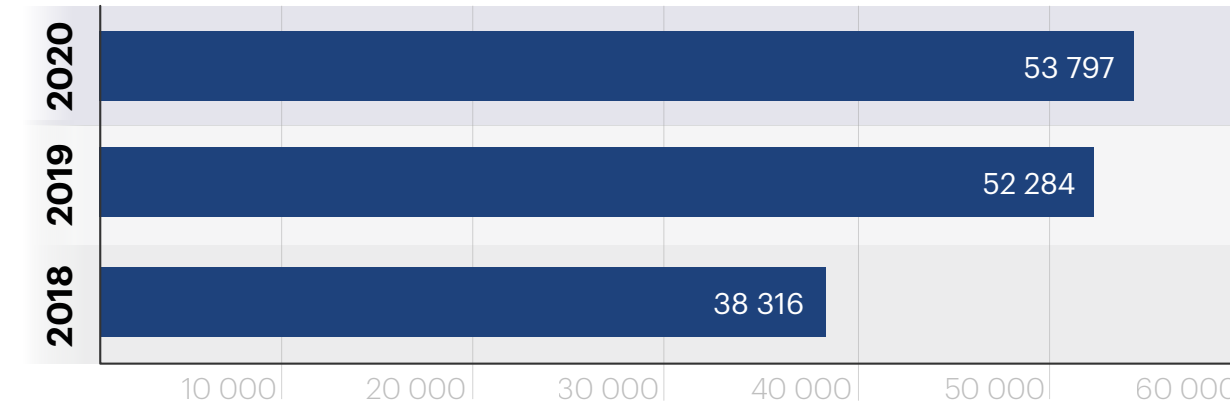
## GLOBAL REACH 2020

Continents **6** Countries **221** Cities **14,648**

### Top 10 Countries 2020

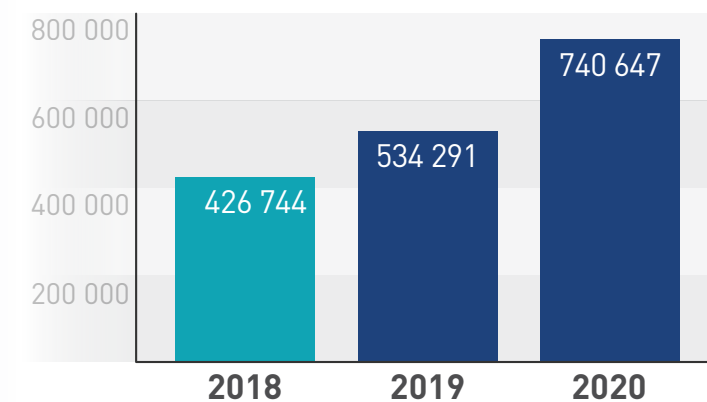
- |                   |                |
|-------------------|----------------|
| 1. United States  | 6. India       |
| 2. Malaysia       | 7. Belgium     |
| 3. United Kingdom | 8. Netherlands |
| 4. France         | 9. Philippines |
| 5. South Africa   | 10. Canada     |

## TOTAL NEWSLETTER SUBSCRIBERS

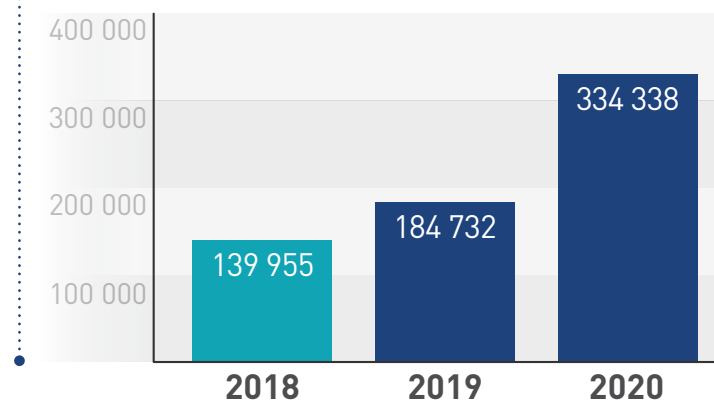


	f	t	in	▶	Total
<b>Total Social Impressions</b>	92,925	2,851,147	1,022,971	1,075,722	5,042,765
<b>Total Social Engagements</b>	79,533 (reach)	9,814	-	50,678 (views) 4037.4 (watch time hours)	

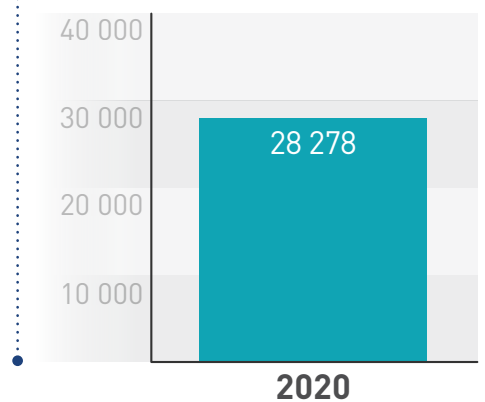
## TOTAL PAGE VIEWS



## TOTAL WEBSITE VISITORS



## ENDURING MATERIALS VIEWS



# SPONSOR OPPORTUNITIES

Hybrid workshops, such as the **International Workshop on HIV Transmission**, allow participants to experience our educational programs either in person or virtually and produces more opportunities for our supporters to interact with our audience. By supporting the International Workshop on HIV Transmission, you can connect with clinicians and researchers from academia, research institutes, and GOs/NGOs, both face-to-face and online. By merging in-person communication and virtual elements, the hybrid workshop format is an optimal solution in light of the current circumstances. We are pleased to provide the following opportunities and benefits to further your business. Get in touch with us to discuss a custom package or find out more about these support opportunities.

## Sponsoring this program will give you the following benefits:

- **REACH NEW AUDIENCES** – Gives you opportunities to network and share your company message with a broader audience via virtual or in-person participation
- **PARICIPATE CONVENIENTLY** – Join and contribute to this educational initiative from home or in person
- **MEET YOUR GOALS** – Interact with participants and organizations in your target audience from across the globe

### Contribute to the program

- Opportunities to organize a symposium or event before, during, or after the workshop
- Complimentary attendance as a (virtual) participant and join in on discussions

### Exhibition

- Opportunity to organize a virtual or physical exhibit
- Interact, chat, and share information through 1 on 1 conversations with participants using our virtual exhibition platform

### Exposure

- Recognition via banner on high-traffic registration and workshop webpages
- Pre-event recognition via attendee email communications
- Acknowledgment prior to and during livestreamed sessions
- On-site recognition via banners, flyers, and in the program book
- Your logo on our monthly newsletters, delivered to thousands of opt-in subscribers
- Recognition on our social media channels
- Opportunities to produce video content embedded onto the workshop website to be viewed by our participants
- Logo recognition on (e-)conference bag
- Opportunity to organize a private dinner with workshop faculty

## SCHOLARSHIPS

To make it possible for healthcare professionals from different regions, levels and backgrounds to be able to attend our workshops, we have developed a scholarship-based system through which we can independently support delegates. Through supporting our scholarship system, you and other pharmaceutical industry partners help us to ensure the selection of healthcare professionals that will most benefit from attending our workshops, and thereby guarantee a relevant audience and a higher impact of our workshops.

The scholarships are supported by the financial contributions allocated by our sponsors. A review committee of selected experts reviews scholarship applications in an independent and rigorous process. Priority is given to applicants who have actively participated in original research or scientific work that is being presented at the workshop and/or those who will profit most from participating in order to improve their daily clinical management.

*The abovementioned items are subject to change. Please contact the conference secretariat for the full list of benefits for this program.*

## VIROLOGY EDUCATION

Since 1998, Virology Education has established itself as a leading provider of innovative scientific programs. The core of these internationally recognized meetings encompasses scientific discussion and knowledge sharing in the fields of infectious diseases, pharmacology, liver disease, and more, each with acute tailoring to the needs of healthcare professionals. With the input of key opinion leaders in their respective areas of expertise, our live and online programs are known for their top-quality content with contemporary blends and delivery formats to enable discussion on the latest data.

The International Workshop on HIV Transmission has made a significant contribution in shaping the research community that is committed to understanding molecular mechanisms underlying early events in HIV infection. The workshop has served as a premier platform for junior investigators to present their work, learn from and interact with senior inspirational leaders, and initiate collaborations with them. Since the inauguration of this workshop 15 years ago, we have driven the establishment of current leaders in the field. We are very proud of this achievement and look forward to continuing our mission to foster future generations of young investigators.

### CONTACT



**Kun-Chieh Wu**  
Team Leader  
[kun-chieh.wu@amededu.com](mailto:kun-chieh.wu@amededu.com)

• Biltstraat 106, 3572 BJ Utrecht, The Netherlands  
• [www.academicmedicaleducation.com](http://www.academicmedicaleducation.com), [info@amededu.com](mailto:info@amededu.com)  
• +31 30 230 7140

“ **SMALL, INTIMATE, ALLOWING INTERACTIONS BY PEOPLE INTERESTED IN A VERY FOCUSED AREA, HIGH QUALITY RESEARCH.** ”

“ **AN OPPORTUNITY TO PRESENT OR LEARN ABOUT THE LATEST ADVANCES IN HIV TRANSMISSION RESEARCH AND ITS RELEVANCE TO HIV PREVENTION.** ”



### OUR IMPACT IN 2020

- 44** programs
- 14,070** participants
- 44%** of participants were clinician/physicians
- 17%** were researchers
- 11%** were community representatives (NGO)
- 96%** of the respondents agreed that attending our program increased their knowledge
- 88.3%** of the respondents agreed that attending our program was beneficial for their patients