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INTRODUCTION

The Amsterdam Institute for Global Health and Development (AIGHD) is an international research institute that works to develop sustainable solutions to major health problems. By taking a problem-oriented approach, AIGHD transcends the boundaries of traditional academic disciplines and integrates three fundamental activities into one institute: global health and development research, education and policy advice.

AIGHD was initiated as a partnership between the Academic Medical Center (AMC), the University of Amsterdam (UvA) and the VU University Amsterdam (VU). Today, it is a dynamic research and education institute that thrives on intense collaboration among experts from multiple disciplines including biomedicine, economics and social and behavioral sciences. With its interdisciplinary and translational approach, AIGHD addresses the most critical medical, social, economic and political challenges in global health and development that cut across national and political borders.

To realize its vision of "access to high quality health care for all", AIGHD closely collaborates with implementing partners and organizations from both public and private sectors around the globe. AIGHD works by linking expertise, resources and programs from organizations involved in health-related research, education, capacity building and policy making, bringing a 'delivery perspective' to health research and a 'quality aspect' to health care services.

VISION
Access to high quality health care for all.

MISSION
To provide sustainable solutions to major health problems across our planet by forging synergies between disciplines, health care delivery, research and education.

FOCUS
Our organization transcends the boundaries of traditional academic disciplines and integrates three fundamental activities into one institute: research, education and policy advice.
Together with its global network, AIGHD is pioneering innovative approaches to the delivery, financing and improvement of health care, particularly in resource-limited settings.

Initiated in 2003 as the Center for Poverty-Related Communicable Diseases (CPCD), AIGHD was officially launched on 7 October 2009 in the presence of the late Prince Friso van Oranje-Nassau and Princess Mabel van Oranje. With its headquarters in the Netherlands and offices in Asia and Africa, AIGHD has quickly expanded to become the international research institute it is today.

**GOVERNANCE**

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<td>Execute strategy,</td>
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<td>Weekly meetings</td>
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**PARENT INSTITUTIONS**

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**SUPERVISORY BOARD**
- Overall responsibility for governance
- Define strategic direction
- Appointment and supervision of Executive Board
- Bi-annual meetings
FRANK COBELENS
CHAIR, EXECUTIVE BOARD

Professor of Global Health
Faculty of Medicine
Amsterdam Medical Center—University of Amsterdam

CHRIS ELBERS
MEMBER, EXECUTIVE BOARD

Professor and Desmond Tutu Chair Holder
School of Business and Economics
Vrije Universiteit Amsterdam

ANITA HARDON
MEMBER, EXECUTIVE BOARD

Professor in Anthropology of Health and Social Care
Faculty of Social and Behavioral Sciences
University of Amsterdam

MICHEL HEIDENRIJK
MEMBER, EXECUTIVE BOARD

Executive Director, Joep Lange Institute and
Amsterdam Health & Technology Institute

CONSTANCE SCHULTSZ
MEMBER, EXECUTIVE BOARD

Professor of Global Health
Faculty of Medicine
Amsterdam Medical Center—University of Amsterdam

AIGHD is governed by its Supervisory Board, Executive Board and Operational Management Team.
SUCCESES AND CONTRIBUTIONS

In 2016, the Amsterdam Institute for Global Health and Development (AIGHD) contributed to research, education and policy advice in global health and development in five domains: urbanization and health, antimicrobial drug resistance, infectious disease elimination, chronic care and ageing, and health markets. Across these domains, AIGHD consolidated its achievements in HIV/AIDS research with ongoing studies into HIV-related comorbidities and ageing, HIV drug resistance and scale-up of ‘test and treat’. We expanded our work in antimicrobial resistance for common bacterial and zoonotic pathogens, tuberculosis, cardiovascular disease, helminth infections and child health. Increasingly, our research in each of these domains is interdisciplinary, addressing issues in global health and development through the biomedical, social science and economics lenses in an integrated approach. Projects in these research areas have had important outputs. For 2016, these included 132 papers in peer-reviewed journals and four PhD degrees.

An important element of several of these projects has been the strengthening of local research capacity. Forty-two PhD fellows worked at AIGHD in 2016, often in a ‘sandwich’ format in which they combined data collection in their home country with periods of intense supervised research work in Amsterdam. 2016 also saw the completion of the ARISE project that supported four African universities in establishing Research Support & Training Centers aimed at strengthening local ownership of biomedical research and institutional research infrastructure. The annual INTEREST Workshop, held this year in Cameroon, provided a platform for lively debate on HIV research in Africa.

Among our educational achievements were the further development of the Master's course in Global Health Research (with the Vrije Universiteit Amsterdam's Athena Institute) into a truly mixed-methods course, numerous contributions to the University of Amsterdam’s medical curriculum training (in particular, Bachelor and Master thesis supervision) and the development of the new Epicurius Bachelor curriculum, and AIGHD-organized symposia around global health topics. AIGHD staff were also engaged in various international policy debates and guideline development processes.

Essential for AIGHD’s achievements have been successful collaborations with other research institutes and organizations. In the Netherlands, we continue to
collaborate with various research groups within the Academic Medical Center (AMC), the University of Amsterdam’s Faculty of Social and Behavioural Sciences and the Amsterdam Institute for Social Science Research (AISSR), the Vrije Universiteit Amsterdam’s School of Business and Economics (VU-SBE), as well as with the PharmAccess Group, the Amsterdam Health & Technology Institute (AHTI), the Joep Lange Institute, the VU’s Athena Institute, the KNCV Tuberculosis Foundation and Health[e] Foundation.

Internationally, we have worked with a global network of universities and research institutes on all continents. Some have also been of particular importance for collaboration at the institutional level, prompting international trips by AIGHD’s Executive Board and Operational Management Team members to Duke University Global Health Institute (Durham NC, USA) in 2016, the African Population Health Research Center (Nairobi, Kenya), the Southeast Asia Community Observatory/Monash University (Segamat, Malaysia), Makerere University College of Health Sciences (Kampala, Uganda), the Reproductive Health Institute at Witwatersrand University (Johannesburg, South Africa), the School of Public Health at Chongqing Medical University (Chongqing, China) and (planned for early 2017) the HIVNAT/Thai Red Cross and Chulalongkorn University collaboration (Bangkok, Thailand).

This work was supported by funding from a wide variety of sources. In addition to support from the University of Amsterdam, we received project support from, amongst others, the Dutch Government, the European Commission, philanthropic organizations (such as the Bill and Melinda Gates Foundation), product development partnerships and industry sponsors.

CHALLENGES & EXTERNAL FACTORS

The primary challenge for AIGHD remains the acquisition of funding for its core activities and essential support functions. While it received some in-kind support from the AMC through the Department of Global Health, funding from the University of Amsterdam through the Research Priority Area (“Zwaartepunt”) Global Health, all other activities were funded through project funding. This limited, in particular, our capacity to invest in new project grant applications. Similarly, research funding for global health has continued to be constrained. Funding from the Dutch government (mainly through NWO-WOTRO) for global health has remained limited and largely restricted to sexual and reproductive health. The Dutch National Research Agenda, established through a bottom-up process, barely pays attention to global aspects of its health priorities. Health-related calls within the European Commission’s Horizon 2020 Societal Challenges Program have been largely thematic, making global health topics compete with disease areas that are considered of more relevance in the EU context.

The longer-term consequences for global health funding influenced by recent political developments and administration changes, particularly in Europe and the US are so far unclear. We do know, however, that the European & Developing Countries Clinical Trials Partnership (EDCTP) is expected to issue several larger calls for clinical research in poverty-related infections in Africa; the Dutch Government has defined antimicrobial resistance one of its international health priorities; and political awareness of the importance of global health
security is quickly gaining ground, both domestically and internationally. In addition, AIGHD has started a process of identifying and further developing ‘Big Ideas’ for research projects that can be submitted for external funding.

Another challenge has been the relatively limited critical mass in AIGHD, resulting in constrained capacity to acquire new project funding and to move into new areas where funding is becoming available. This has underscored the need for broadening AIGHD’s disciplinary and scientific expertise base. The expansion of AIGHD, in 2016, to include social scientists from the AISSR and economists from the VU-SBE was an important step to address this limitation. Another will be the formal engagement of additional successful researchers of the AMC, UvA-AISSL, VU-SBE and beyond as AIGHD academic staff (to be implemented in 2017). A major development for AIGHD’s future critical mass has been the commencement of the Joep Lange Chair and Fellows Program.

ORGANIZATIONAL DEVELOPMENTS

By the end of 2016, the total number of AIGHD-employed staff in the Netherlands was 47 FTE. In addition to its headquarters in Amsterdam, AIGHD employed staff in branch offices for clinical operations and data management in Kampala (Uganda, in close collaboration with Makerere University College of Health Sciences) and Bangkok (Thailand, as an extension of the HIVNAT program). We initiated the formal integration of the Amsterdam Institute for International Development (AIID) into AIGHD, which will be completed in 2017.

As of 1 January 2016, AIGHD’s Executive Board (EB) was expanded with the addition of Prof. Constance Schultsz (AMC), Prof. Anita Hardon (AISSR/UvA Faculty of Social and Behavioral Sciences) and Prof. Chris Elbers (VU-SBE), with Prof. Frank Cobelens (AMC) as its Chair. Michiel Heidenrijk stepped down as Managing Director of AIGHD and Friso Janssen was appointed General Manager. During the course of the year, AIGHD’s Supervisory Board (SB) was expanded as well to reflect the integration of the three disciplines, now consisting of Prof. Tom van der Poll (AMC, chair), Prof. Hans Romijn (successor of previous SB chair and AMC/Faculty of Medicine Dean Prof. Marcel Levi), Prof. Hans Brug (Dean UvA-FMG) and Prof. Willem Verschoor (Dean VU-SBE). The EB meets monthly, with day-to-day management delegated to the Operational Management Team. AIGHD’s Management Team was retained in an advisory capacity and expanded to better reflect the various levels in the organization.

Organizational developments furthermore included an EB-led inventory of academic staff ambitions, the introduction of formal academic titles (within the respective faculties) for research and education staff along with annual work plans, the initiation of an annual budget cycle and streamlining processes for Bachelor and Master thesis supervision. The EB also started the development of AIGHD’s next Strategic Plan, to be completed in 2017.

The Joep Lange Chair and Fellows Program, supported by the Dutch Ministry of Foreign Affairs and the Joep Lange Institute, allows the appointment of five part-time professors in various areas of global health at AIGHD/AMC’s Department of Global Health, as well as research fellows to further expand these areas. 2016 saw the appointment of the first two Joep Lange Chair holders (both starting in 2017): Prof. Dan Ariely (Behavioral Economist at Duke University, Durham NC, USA) and Dr. Mark Dybul (currently Director of the Global Fund to fight AIDS, Tuberculosis and Malaria).

Two further Chair holder appointments are foreseen for 2017. In addition, AIGHD’s critical mass was strengthened by the appointment of Dr. Constance Schultsz (Emerging infectious diseases and antibiotic resistance; already with AMC/ AIGHD) and Dr. Jintanat Ananworanich (HIV treatment and cure; primary affiliations HIVNAT Thailand and US Military HIV Research Program) as full professors.
THE YEAR AHEAD

For AIGHD, the year 2017 will be one of expansion, in which it will aim to consolidate and strengthen its position in global health and development research and education, capitalizing on the ongoing interdisciplinary integration, recent organizational renovations and new opportunities for funding and enhancement of its critical mass. To this aim, it will further develop and support an interdisciplinary discourse, internally as well as with partners, to define novel research questions in global health and development, and identify funding opportunities for new research projects. Planned improvements in its capacity for, and approach to, grant acquisition will hopefully translate into funding for several new research projects. AIGHD will also continue to increase opportunities to attract core funding.

In education, we will continue to improve our existing courses, develop innovative Global Health Trajectories in the new Bachelor of Medicine curriculum at the AMC, and work towards a PhD Program in Global Health with involvement of the faculties that collaborate in AIGHD.

The appointment of new Joep Lange Chair holders and fellows will be an important boost for AIGHD’s critical mass, as will be a formalization of the position of non-AIGHD-employed research and education staff who wish to be involved in the organization’s activities.

AIGHD will continue strengthening its ties with its parent academic institutes, international partners, and NGOs and other organizations in health care delivery with which it collaborates. It will work towards enhancing its visibility as an interdisciplinary research institute both domestically and internationally.

On behalf of the Executive Board
Prof. Frank Cobelens
Chair, Executive Board, AIGHD
KEY FIGURES 2016

NET INCOME $10.47 M

NUMBER OF STAFF WORLDWIDE 75

NUMBER OF PhD SUPERVISIONS 42

NUMBER OF SCIENTIFIC PUBLICATIONS 132
In 2016, AIGHD was involved in a large number of research projects. Several of these were interdisciplinary in nature, crossing the bridges between medicine and biomedical sciences, social and behavioral sciences and economics. SOCIALAB, a project completed in 2016, combined ethnographic research with studies of utilization of diagnostic tests to understand how practical, organizational, economic, sociocultural and historical factors contribute to the under-utilization of laboratory screening for various diseases in antenatal care in Senegal. The COHEiSION project, also completed in 2016, focused on health insurance in Ghana. A team of biomedical scientists, health economists and social scientists studied clients’ perceptions about willingness to remain insured, attractiveness of services offered and alternatives that people would opt for. In the ongoing MaxART project, AIGHD epidemiologists, anthropologists and health economists collaborated to evaluate the feasibility, acceptability, clinical outcomes, affordability, and scalability of offering anti-retroviral therapy to HIV positive people regardless of CD4 count in Swaziland. AIGHD researchers were engaged in many other research projects around the globe, such as ageing and comorbidity in relation to HIV infection and treatment, innovative methods for surveillance of antimicrobial resistance, HIV drug resistance in sub-Saharan Africa, early testing of a hookworm vaccine, evaluation of patient-centered hypertension control and economic modeling of tuberculosis interventions. These research activities resulted in 132 publications in peer-reviewed journals and four PhDs defenses at the University of Amsterdam.

In 2016, we also saw the completion of the first PhD project in the Erasmus Mundus Trans Global Health program (an AIGHD-led project on tuberculosis and HIV co-infection), resulting in a joint doctoral degree between the University of Amsterdam and the University of Barcelona (thesis to be defended in 2017).

Our research findings translated into several policy documents and guidelines concerning global health. In 2016, AIGHD researchers contributed to the World Health Organization’s expert and guideline committees on new drug regimens for tuberculosis and assays for latent tuberculosis infection.

AIGHD was awarded a number of grants for new research projects. We will start a collaborative project with the Italian NGO CUAMM (Medici con l’Africa) to study the roll-out of “test and treat” antiretroviral treatment in the Shinyanga and Simiyu Regions, Tanzania. The results are
meant to feed back directly into further development and improvement of the program as it progresses. Linked to this will be a TB-REACH project to improve and evaluate tuberculosis case finding in the same regions. Two grants have been awarded to study zoonotic diseases and antimicrobial resistance in a One Health framework: HECTOR and PIGS. Finally, several research projects are being prepared in the context of the M-TIBA program. This program, designed and run by the Dutch NGO PharmAccess in collaboration with the Kenyan innovator CarePay, offers a novel approach to health financing through a Mobile Health Wallet on a mobile payment platform, focusing on the rapidly expanding private health sector in Africa.

The joint research projects aim to study biomedical, economic, behavioral and feasibility aspects of the M-TIBA program, as well as ways to use the data it generates for, amongst others, health planning and surveillance purposes.

Also in 2016, the research projects that AIGHD was involved in were collaboratively carried out with a wide array of collaborators. These included academic and research institutes in the Netherlands, Europe, Africa, Asia and the Americas (see section ‘Where we work’ on page 22), as well as governmental institutes (e.g. China Center for Disease Control) and NGOs (e.g. Amsterdam Institute for Health & Technology, PharmAccess Group, Health[e] Foundation, KNCV Tuberculosis Foundation, HealthNet TPO).
PROJECT HIGHLIGHTS

ARISE: AFRICA RESEARCH INITIATIVE AND SUPPORT NETWORK

The objective of the ARISE (Africa Research Initiative and Support) consortium was to strengthen research and development capacity by developing a network of Research Support & Training Center’s (RSTCs) in sub-Saharan Africa. The ARISE consortium, funded by the Ministry of Foreign Affairs of The Netherlands, was founded in 2012.

Achievements: four RSTCs were established in Zimbabwe, Uganda, Rwanda and Malawi. These RSTCs were integrated into their respective host institutes and their activities were often conducted in a South-South collaboration between network partners. The RSTC activities were grouped into three categories (work packages): 1) Training & Courses; 2) Support Services; and 3) Governance & Infrastructure.

1) Training & Courses: At all sites, a course portfolio was developed offering a range of courses including: conducting clinical research, biostatistics, evidence-based medicine, and data- and grants-management. Over the funding period, more than 3,000 trainees attended the courses, majority comprising students and faculty staff.

2) Support Services: The service package of epidemiological and statistical support, data and grants management support and monitoring of clinical trials was developed at all sites. These services benefitted students and staff members, but more importantly, increased the quality of research conducted at the host institutes.

3) Governance & Infrastructure: The RSTCs have been able to establish themselves as the epicenter of research activities at their respective host institutes. They have made vital contributions to the development of research policies and guidelines. Through regular newsletters they have been able to become the source of research information for students and staff.

This very successful NACCAP-funded program has made significant contributions towards research capacity building in Africa and has shown that research ownership can be shifted from the west to the Sub-Saharan host institutes.
Using methodologies that were fully compatible with WHO guidance, the project determined the effects of large-scale antiretroviral treatment (ART) on the emergence and evolution of HIV drug resistance. Unlike any other HIV drug resistance effort in Africa, PASER was able to produce long-term data on a comprehensive scale and show results of up to 72-84 months of patient follow-up. PASER collected data from 13 clinical sites in six countries: Kenya, Uganda, Zambia, Zimbabwe, South Africa and Nigeria. Extensive experience and benefits were gained from the regional aspects of the program. In 2012, PASER contributed 25% of all HIV drug resistance data reported to the WHO from sub-Saharan Africa. The project built capacity in Africa for the monitoring and surveillance of HIV drug resistance by training clinic staff, nurses, counselors and lab technicians in good clinical practice (GCP) and good laboratory practice (GLP). In addition, PASER proved to be a true advocate of HIV drug resistance by publishing nearly 50 scientific manuscripts in peer-reviewed journals, delivering presentations at key HIV conferences, reaching out to mass media in Africa, and influencing policy on HIV treatment in Africa. Importantly, PASER created high-profile involvement in the international policy arena of HIV treatment in Africa.

MaxART: MAXIMIZING ART FOR BETTER HEALTH AND ZERO NEW HIV INFECTIONS

The three-year Early Access to ART for All implementation study (2014-2017) aimed to introduce and evaluate the scale up of immediate access to HIV treatment in Swaziland. The protocol has been recently published (Walsh et al Trials. 2017 Aug 18;18(1):383. doi: 10.1186/s13063-017-2128-8). The study closed recruitment and follow up during the first quarter of 2017 and we are in the analysis process. Results are expected to be released early 2018 and will cover: programmatic evaluation (impact on retention, viral suppression and costs), modelling evidence on population level impact, and evidence from the social sciences to develop a deeper understanding of reasons for delayed initiation, non-adherence, and non-retention. AIGHD and the Amsterdam Institute for Social Science Research collaborated to develop the social science component as a multi-disciplinary exercise.
SOCIALAB: ADRESSING SOCIAL, CULTURAL AND HISTORICAL FACTORS LIMITING THE CONTRIBUTION OF MEDICAL LABORATORY SERVICES TO ANTENATAL CARE IN SENEGAL

The SOCIALAB project examined how organizational, political, sociocultural and historical factors shape the views of health policymakers and others regarding medical laboratories and how they influence the organization, service delivery and success of current interventions to upscale laboratories in health facilities in Senegal. The project used a transdisciplinary approach linking Dutch, Senegalese and French research institutions with local stakeholders to understand the underutilization of laboratory testing in antenatal care (ANC) in Senegal.

The case study in Senegal revealed that screening tests are severely underutilized, in a context where laboratory technology and infrastructures for ANC testing are widely available. Less than one-third of the 1,600 pregnant women who visited the participating health facilities obtained the complete set of seven mandatory antenatal tests. Moreover, only 11% of women interviewed during the ethnographic study, were in possession of the complete set of test results.

The historical analysis conducted in Senegal, Mali and Burkina Faso suggested that the lack of dedicated programmatic support from international donors seriously limited the development of the laboratory sector in West Africa, thereby aggravating the neglect of maternal care diagnostics by health program managers and national policymakers. Because HIV incidence is low in West Africa, these countries did not receive the extensive support from PEPFAR (President’s Emergency Plan for Aids Relief, USA) which played an important role in strengthening laboratories in East and southern Africa.

The SOCIALAB project has identified bottlenecks in the whole process of ANC test uptake, with new insights into the difficulties of strengthening the medical laboratory sector in low-resource settings in West Africa.

The results led to recommendations for the improvement of medical laboratory services and hence the quality of ANC in Senegal and other settings. The outcomes of the study have been taken up directly by the Directorate of Laboratory in Senegal and are currently being examined by Mali and Burkina Faso in the context of the RESAOLAB network. Capacity for transdisciplinary research has been built within the consortium for Southern and Northern scientists.
TB CHINA: IMPROVING TUBERCULOSIS CONTROL IN CHINA

The goal of this project was to demonstrate the impact of improved tuberculosis (TB) control using innovative tools and delivery approaches in China. Working with Duke University (USA) and several Chinese universities, AIGHD researchers evaluated the effects of these interventions on clinical and epidemiological parameters related to diagnosis and treatment of drug-resistant TB. Other aspects studied in the project included health sector changes, health care financing and economic burden to patients. The project found important benefits of improved diagnosis using rapid molecular drug resistance tests, but also limited impact of the new policy, recently introduced in China, of sputum culture for all patients diagnosed with TB despite negative microscopic sputum examination.

VIBRE: ANTIMICROBIAL DRUG RESISTANCE—THE HUMAN-ANIMAL INTERFACET

In low-income countries, most poultry is kept in backyard farms. Knowledge regarding antimicrobial drug usage and antimicrobial resistance (AMR) in backyard farms is limited. This project used a One Health approach, simultaneously studying chicken flocks and their farmers, as well as humans unexposed to chickens, in southern Vietnam. The study focused on antimicrobial drug usage in backyard chickens and humans in the community, as well as on AMR levels in normal gut bacteria in chickens and humans. The results of the study indicate that antimicrobial drug usage in backyard chickens is very high and that this usage is a key driver of AMR in both humans and backyard chickens. In addition, the results show that transmission of bacteria and bacterial genes between chickens and humans is bidirectional, depending on several aspects such as the antimicrobial drugs used in each of the host populations and the likelihood of direct exposure.
SPIN: SCIENTIFIC PROGRAMME INDONESIA-NETHERLANDS—NOVEL STRATEGIES & TOOLS FOR ANTIMICROBIAL RESISTANCE SURVEILLANCE

The SPIN project validates, optimizes, and implements the use of LQAS-based AMR surveillance for urinary tract infections caused by Escherichia coli and Klebsiella pneumoniae. This is paired with extensive capacity building activities in microbiology using state-of-the-art techniques (Tele-microbiology approach) to be able to effectively inform local antimicrobial stewardship activities. Other objectives of the study are to assess the appropriateness of empirical therapy for urinary tract infection given the background prevalence of AMR as assessed by LQAS-based surveillance, and to assess clinical and molecular determinant of AMR in urinary tract infections. The studies take place in two cities on two Indonesian Islands (Bandung, Java and Medan, Sumatra) and consist of two sub-projects. The first project focuses on epidemiology and mathematical modeling, addressing the validation and optimization of the use of LQAS-based surveillance, as well as bias introduced by laboratory-based surveillance or negative cultures. The second project focuses on clinical and microbiological aspects, and studies the effect of results of LQAS-based surveillance on antimicrobial stewardship activities and appropriateness of empirical therapy.

PEDIATRIC HIV DRUG RESISTANCE NIGERIA

Pediatric HIV Drug Resistance Nigeria is a collaboration between AIGHD, the Nigerian Ministry of Health (MOH), the Lagos University Teaching Hospital (LUTH) and all participating Early Infant Diagnosis (EID) centers in Nigeria. During the PASER study, preliminary results showed an alarming 21% of children with HIV drug resistance (HRDR), even before anti retroviral treatment had started. The rate of HIV drug resistance among children without any exposure to drugs for PMTCT was 16%. These data are the first for Nigeria and provide a strong warning signal for health policy. Therefore, this project assesses initial HIVDR among children under the age of 18 months in order to confirm and expand on these preliminary findings of high pre-treatment HIVDR and thus inform potential consequences for selection of first-line pediatric ART regimens. This project is aligned with WHO methodology and uses remnant diagnostic dried blood spots (DBS) to survey initial resistance among a nationally representative sample of children under the age of 18 months, newly diagnosed with HIV-1 in Nigeria.
HOOKVAC studies a candidate vaccine against hookworm infection, which ranks number one in terms of years lost from a disability caused by a neglected infectious disease. It aims to establish the safety and immunogenicity of the vaccine candidate in an endemic population; improve the manufacturing process; provide clinical proof of concept; and improve accessibility of the vaccine in endemic areas (sub-Saharan Africa, Southeast Asia and Latin America). HOOKVAC is developing the world's first and only vaccine for human hookworm infection.

AGEhIV COHORT STUDY: COMORBIDITY AND AGEING WITH HIV

The AGEhIV Cohort Study compares the prevalence and incidence of a broad range of non-communicable co-morbidities and their risk factors between HIV-infected and uninfected individuals aged 45 and older. Its primary aim is to determine the extent by which HIV may increase the risk of developing such co-morbidities, and to study potential underlying mechanisms, including any which may affect aging as a result of infection and antiviral treatment. The study started recruiting in the Netherlands in November 2010, and within two years, 598 HIV-infected and 550 uninfected individuals were enrolled and completed their baseline assessment. A five-year follow-up study was set up in 2015.
The H-TEAM initiative is a unique collaboration between all stakeholders involved in the prevention and care of HIV in Amsterdam, including key affected communities. The main objectives are (1) to decrease the number of new HIV infections in people at risk of becoming HIV-infected; and (2) to promote the health of HIV-infected individuals and reduce their risk of transmitting HIV to others. The H-TEAM initiative has developed and implements innovative strategies to expand testing and immediate treatment for HIV, as well as to prevent further transmission of the virus. For example, H-TEAM implemented strategies to enhance the awareness of acute and chronic HIV infection and the benefits of regular testing, early diagnosis and treatment among the key populations and their health care providers, combined with rapid testing procedures, fast linkage to care and provision of immediate HIV treatment. H-TEAM also implemented a demonstration project that evaluates the uptake, acceptability and usability of pre-exposure prophylaxis (PrEP) for MSM and transgender people with increased risk of acquiring HIV.

OMRON Healthcare Europe approached AIGHD to collaborate on developing, implementing and evaluating an innovative pharmacy-based hypertension care delivery model for sub-Saharan Africa. In this jointly-developed program, patients with hypertension use community pharmacies as their main point of care, rather than regular health facilities. Patients will go to the pharmacy for blood pressure measurements, lifestyle advice and drug dispensary. Monitoring of patients and drug prescriptions will be done remotely by a doctor via a digital data transfer tool, a ‘health cloud’. The expected benefits for patients include reduced travel and waiting time at health facilities, reduced costs of care and potentially better service due to lower workloads of pharmacy staff compared to doctors at health facilities. A pilot of the program was started in Lagos, Nigeria, recruiting 336 adults with uncomplicated hypertension to participate in the program for six months.
The ‘nodding syndrome’ (NS) is an unexplained neurological illness that has been reported in South Sudan, Tanzania and Uganda and mainly affects children for the first time when they are between 5 and 15 years of age. NS is characterized by head-bobbing spells. The onset of the spells is often followed, years later, by other types of seizures, growth faltering and cognitive deterioration. There is an urgent need for more detailed investigation into NS in order to address outstanding questions with respect to prevalence, natural history and aetiology. The findings of this study will be critical for health care providers to plan and improve their NS treatment and preventive programs.

SPARKS

SPARKS is an awareness-raising and engagement project to promote Responsible Research and Innovation (RRI) across 29 European countries (EU members plus Switzerland). It brings together 33 organizations as partners and linked third parties. SPARKS will organize an interactive touring exhibition and 232 innovative participatory activities on RRI (e.g. science cafés, pop-up Science Shops, incubation activities and scenario workshops) across Europe. The project aims to raise awareness about RRI across Europe and engage citizens and other stakeholders; contribute to the achievements of Horizon 2020; inform research and innovation policies at the EU, national, regional and local levels with societal inputs to facilitate the development of RRI; and build upon existing projects and powerful networks.

SOUTH SUDAN NODDING SYNDROME STUDY

The ‘nodding syndrome’ (NS) is an unexplained neurological illness that has been reported in South Sudan, Tanzania and Uganda and mainly affects children for the first time when they are between 5 and 15 years of age. NS is characterized by head-bobbing spells. The onset of the spells is often followed, years later, by other types of seizures, growth faltering and cognitive deterioration. There is an urgent need for more detailed investigation into NS in order to address outstanding questions with respect to prevalence, natural history and aetiology. The findings of this study will be critical for health care providers to plan and improve their NS treatment and preventive programs.
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<td>A phase 3b, Randomised, Open-label Clinical Study to Demonstrate Non-inferiority in Virologic Response Rates of HIV-1 RNA Suppression &lt;400 Copies/mL of TDF/FTC/RPV Versus TDF/FTC/EFV in First-line Antiretroviral NNRTI-based Suppressed Patients</td>
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<tr>
<td>Pediatric HIV Drug Resistance study in Nigeria</td>
<td>Prof. T.F. Rinke de Wit</td>
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<td>15 years Heineken</td>
<td>Prof. T.F. Rinke de Wit</td>
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<tr>
<td>10th INTEREST Workshop, Yaounde, Cameroon, 3-6 May 2016</td>
<td>Dr. C. Hankins</td>
</tr>
<tr>
<td>Co-morbidity in relation to AIDS</td>
<td>Prof. P. Reiss</td>
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<tr>
<td>Epidemiology and control of tuberculosis in the antiretroviral therapy era: towards a mathematical model for Cape Town, South Africa</td>
<td>Dr. S. Hermans</td>
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<tr>
<td>Analysis on the concepts, relationships between and causes of poverty, income inequality and economic growth</td>
<td>Prof. P.F. Lanjouw</td>
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<tr>
<td>Expanded use of ART for treatment and prevention in female sex workers in South Africa (TAPS project)</td>
<td>Dr. G. Gomez Guillen</td>
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<tr>
<td>Evaluation of the ORIO project ORIO09/SA/01 Sustainable Water and Sanitation Development Programme for Indigent Communities in eThekwini Municipality, South Africa</td>
<td>Prof. C.T.M. Elbers</td>
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<tr>
<td>Comparing the impact and cost effectiveness of two social protection interventions in Kenya: fee waiver versus social health insurance scheme</td>
<td>Prof. C.T.M. Elbers</td>
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<tr>
<td>OMRON Pilot Evaluation</td>
<td>Dr. A.H. van ’t Hoog</td>
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<tr>
<td>Big Results Now! Research on Education System Reform in Tanzania</td>
<td>Dr. Y. Schipper</td>
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<tr>
<td>Novel strategies and tools for antimicrobial resistance surveillance</td>
<td>Prof. M.D. de Jong</td>
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<tr>
<td>PROJECT TITLE</td>
<td>PROJECT LEADER</td>
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<td>Developing and Testing a novel, low-cost, effective HOOKworm VACCine to Control Human Hookworm Infection in endemic countries</td>
<td>Dr. R. van Leeuwen</td>
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<tr>
<td>International Doctorate in Transdisciplinary Global Health Solutions</td>
<td>Prof. F.G.J. Cobelens</td>
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<tr>
<td>Thematic coordination infectious disease and health; &quot;Translating health research into health policy in Indonesia: barriers and solutions&quot;</td>
<td>Prof. M.D.w de Jong</td>
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<tr>
<td>EU-India research and innovation partnership on vaccine development for hookworm and other neglected tropical diseases</td>
<td>Dr. R. van Leeuwen</td>
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<tr>
<td>The gut microbiome as a determinant of the diminished rotavirus and enteric vaccine immunogenicity seen in the developing world</td>
<td>V.C. Harris</td>
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<tr>
<td>Productive Employment in the Segmented Markets of Fresh Produce</td>
<td>Prof. M.P. Pradhan</td>
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<tr>
<td>South Sudan Nodding Syndrome Study programme: A study into the epidemiology, aetiology and outcome of nodding syndrome in South Sudan</td>
<td>Prof. M. Boele van Hensbroek</td>
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<tr>
<td>New challenge for HIV in Africa: exacerbated immune activation during antiretroviral treatment; biomarkers and health impact</td>
<td>Dr. R. Hamers</td>
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<tr>
<td>Rota-biome: the influence of the viral, fungal and bacterial microbiome on rotavirus vaccine immune responses. A retrospective study in Ghana.</td>
<td>V.C. Harris</td>
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<tr>
<td>Evaluation of the ORIO project 09/VN/04 Realisation of Two Water Supply Plants for Rural Areas in Ba Ria Vung Tau Province</td>
<td>Prof. C.T.M. Elbers</td>
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<tr>
<td>SPARKS</td>
<td>Dr. C. Hankins</td>
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<tr>
<td>Principal Investigator - Quantitative Research KIAT Guru</td>
<td>Prof. M.P. Pradhan</td>
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<tr>
<td>HealthTech Park</td>
<td>Mr. M. Heidenrijk</td>
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<tr>
<td>Amsterdam MSM Hepatitis C Free</td>
<td>Dr. M. van der Valk</td>
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<tr>
<td>Comorbidity and aging with HIV (AgehIV Cohort Study)</td>
<td>Prof. P. Reiss</td>
</tr>
<tr>
<td>1H4F – Integrale aanpak van preventie en bestrijding van Streptococcus suis infecties in de varkenshouderij</td>
<td>Prof. C. Schultsz</td>
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<tr>
<td>Impact Evaluation of the MASSIF Investment in Business Partners International (BPI)</td>
<td>Prof. C.T.M. Elbers</td>
</tr>
<tr>
<td>European HIV Vaccine Alliance (EHVA); a EU platform for the discovery and evaluation of novel prophylactic and therapeutic vaccine candidates</td>
<td>Prof. J.M. Prins</td>
</tr>
<tr>
<td>Evaluation of the ORIO project ORIO09/GH/05 Ghana TB Case Detection</td>
<td>Dr. F. van Leth</td>
</tr>
</tbody>
</table>
We see our students as potential future colleagues. We strive to provide a stimulating and supportive learning environment that ensures graduates are fully equipped with the breadth of knowledge, skills and insights needed to pursue a successful career in global health.

Guus ten Asbroek
Master & Postgraduate Education Coordinator, AIGHD

AIGHD’S LECTURERS AND CURRICULUM DEVELOPERS

Guus ten Asbroek, Daniella Brals, Frank Cobelens, Michael Boele van Hensbroek, Anja van ’t Hoog, Frank van Leth and Constance Schultsz.

In 2016:

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
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<tr>
<td>PhD supervisions</td>
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<tr>
<td>PhD defenses</td>
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</tr>
<tr>
<td>Bachelor thesis supervisions</td>
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</tr>
<tr>
<td>Internships</td>
<td>7</td>
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</table>

Note: Statistics for PhDs based on calendar year. Statistics for Bachelor/Master based on 2015/2016 academic year.
Developing and inspiring the next generation of global health leaders

At the undergraduate level, AIGHD co-ordinates the Global Health elective course, offered to second year Bachelor of Medicine students at the Academic Medical Center (AMC), the university hospital and Faculty of Medicine of the University of Amsterdam (UvA). As of 2016, AIGHD is also developing additional elective courses in the field of global health for the AMC’s new Bachelor of Medicine curriculum, in collaboration with multiple faculties and disciplines in the Netherlands and abroad, in order to increase competence in global health and promote interdisciplinary learning. In 2016, AIGHD hosted seven bachelor thesis projects.

In collaboration with the Vrije Universiteit Amsterdam (VU) and the UvA, AIGHD offers the two-year Research Master Global Health at the VU. AIGHD is responsible for several elements of this program which has been running since 2012 and continues to be an active participant of the coordinating team.

Scientific internships are hosted by AIGHD for Master’s students, allowing students to gain ‘hands on’ real-world skills in global health research. In 2016, AIGHD hosted four such internships, many of which included international fieldwork and experiential collaboration with local communities, researchers and institutions.

In 2016, AIGHD supervised 42 PhD students. PhD research work is supervised (or co-supervised) by one of AIGHD’s research group leaders who provide supervision and mentorship throughout the duration of the PhD, including overseeing the quality and completeness of the research. PhD student are deeply embedded within active research teams at AIGHD in the Netherlands and abroad, in fields such as infectious diseases, chronic diseases and health systems, collaboratively working with internal and external researchers and institutions. The PhD results in the defense of a final thesis and a scientific publication.

Alongside its involvement in global health education at the VU and the AMC/UvA, AIGHD also contributes to global health courses at the Amsterdam University of Applied Sciences (HvA) and various other universities, professional organizations and NGOs. In collaboration with partner institutions, AIGHD also conducts professional training in Quantitative Research Methods and Good Clinical Practice in Nigeria and Uganda.
STUDENT TESTIMONIALS

2ND YEAR RESEARCH MASTER GLOBAL HEALTH STUDENTS, VRIJE UNIVERSITEIT AMSTERDAM

KALINA HEITER

Volunteer work in Uganda, completing a Bachelor in Hospital Management and experiences such as volunteering for UNICEF piqued my curiosity in global health. Some initial research led me to discover that there are many diverse determinants of health, and various ways for students to be involved in global health research. It is largely a collaborative process—each researcher contributing a piece to solving the puzzle of disease and morbidity.

During the Research Master in Global Health at the Vrije Universiteit Amsterdam program, I undertook my first research internship at the Amsterdam Institute of Global Health and Development. I worked on a research project studying pharmacy-based hypertension care in Nigeria. I gained experience collecting qualitative data and professionally extracting quantitative data, as well as data analysis, and communicating within a research team. It was a rewarding experience allowing me hands-on experience in a real research environment so I could gain a deep understanding of conducting health research. I also learnt a great deal through my participation in the day-to-day interactions within the AIGHD. I found the weekly Friday lunch meetings particularly inspiring as they gave me insight into the potential scope and reach of global health research.

My internship experience has shaped me into the person I am today and has propelled my passion for global health even further. People are brought together from multiple disciplines to collaborate and thrive towards a common goal in global health—I find that very motivating. I am confident and excited that my future lies in global health.
JOHANNA YOUNG

After studying Biomedical Sciences, I realized that my interest in health is very broad rather than specific, and that in particular, the international context of health challenges fascinates me the most. This was the inspiration behind my decision to apply for the Research Master in Global Health at the Vrije Universiteit Amsterdam. One of the significant advantages of this program is the opportunity to undertake two research internships. This allowed me to explore various types of research in very different research settings.

My first research internship was at the AIGHD, under the guidance of Constance Schultsz and Pascale Ondoa. The study investigated antimicrobial drug use in backyard poultry farms in the communities of Cameroon—a potent and relevant topic around the world, and a gravely serious issue, particularly in Sub-Saharan Africa.

This study was a great opportunity to combine my interest in global health with real-life research experience in an international setting. Data collection for the project took place in several regions in Cameroon, and we collaborated with local research partner Global Health System Solutions (GHSS). I was involved in the project from beginning to end, including planning and organization, as well as the actual fieldwork in Cameroon itself. I found this to be a truly valuable and rewarding experience.

At times, I found working in resource-limited settings very challenging, but at the same time, it fueled my personal and academic development. Conducting research and fieldwork in the rural areas of Cameroon would not have been possible without the great support of Pascale Ondoa, Constance Schultsz and my colleagues at GHSS in Cameroon. Working together with local students in Cameroon who provided assistance during the fieldwork was the most interesting and rewarding part of my experience.

Currently, I am undertaking my final research internship at the European Centre for Disease Prevention and Control (ECDC) in Stockholm and will be graduating in the summer of 2017. I am excited to start a new phase in my career and am confident that both internship experiences will greatly benefit my future career path. My dream is to work in global health, in any location in the world. I am curious to see where I will be in half a year’s time!
In 2016, AIGHD researchers engaged in policy advice and active participation in a variety of decision-making bodies. We did this locally in Amsterdam and at the national level in the Netherlands, and at the global level with municipal, governmental and global agencies, as well as non-governmental organizations (NGOs), product development partnerships (PDPs) and companies.

Several of these activities involved research and research funding bodies. Anita Hardon was a member of the Social Scientific Council of the Royal Netherlands Academy of Sciences (KNAW), the Scientific Advisory Board of the Netherlands National Institute for Health and Environment (RIVM), and the Excellence Strategy Review Committee of the German Research Foundation for Humanities and Social Science. Peter Reiss was the Scientific Advisory Board Member of the Agence Nationale de Recherches sur le Sida et les hépatites (ANRS) and Frank Cobelens started his membership of the Scientific Advisory Board of the Research Networks for Health Innovations in Sub-Saharan Africa (German Federal Ministry of Education and Research). Similarly, AIGHD researchers were members of various steering committees, e.g. the European clinical research consortium TB-Net (Dr. Frank van Leth), the Low dose primaquin trial in African children (Mahidol University, Thailand; Michael Boele van Hensbroek), and the MRC-funded STAMP trial on TB diagnosis in severely immunosuppressed HIV patients (Frank Cobelens). Peter Reiss was on the organizing/program committees for the Biannual Glasgow International Congress on Drug
Therapy in HIV Infection and the US Conference on Retroviruses and Opportunistic Infections (CROI).

AIGHD researchers contributed to national-level guideline development in the Netherlands, such as on antibiotic use (Constance Schultsz) and on HIV testing in TB patients (Frank van Leth). AIGHD also participated in global policy bodies, including the Scientific Expert Panel to the UNAIDS Executive Director and the Strategic and Technical Advisory Committee of the UNAIDS 90-90-90 program (Peter Reiss), the Steering and Advisory Committee of the Special Programme of Research, Development, and Research Training in Reproductive Health of NDP/UNFPA/UNICEF/WHO/World Bank (Anita Hardon), and WHO task forces working on the development of target product profiles for new TB drug regimens and assays for latent TB infection (Frank Cobelens). In addition, Peter Reiss was a member of the Executive Committee and Governing Council of the International Aids Society.

We provided advice to PDPs, companies and NGOs. Tobias Rinke de Wit was on the Board of Mondial Diagnostics, a not-for-profit company producing affordable diagnostics for resource-poor settings. Anita Hardon was a Supervisory Board Member at Rutgers International, and Tobias Rinke de Wit and Frank Cobelens were scientific advisors at PharmAccess International and the KNCV Tuberculosis Foundation, respectively. Michael Boele van Hensbroek was a member of the Academic Board of the Dutch Medical Specialization in International Health and Tropical Health.

GOOD PARTICIPATORY PRACTICE GUIDELINES

Dr. Catherine Hankins led a consultative process in 2016 for the World Health Organization to develop a document entitled: Good participatory practice guidelines for trials of emerging (and re-emerging) pathogens that are likely to cause severe outbreaks in the near future and for which few or no medical countermeasures exist (GPP-EP). The primary audience for the good participatory practice guidelines for emerging pathogens (GPP-EP) is all those involved in designing, financing, and implementing prevention and treatment trials of emerging or re-emerging pathogens. These are pathogens that are causing or are likely to cause severe outbreaks in the near future and for which few or no medical countermeasures exist. They include diseases such as Ebola virus disease, Crimean Congo haemorrhagic fever, Marburg, Lassa fever, MERS and SARS coronavirus diseases, Nipah, Rift Valley fever, Chikungunya, severe fever with thrombocytopenia syndrome, Zika, and other known and as yet unknown pathogens. This guidance specifically addresses good participatory practices during trials conducted in health emergency contexts where accelerated research processes are needed.
Ending AIDS as a public health threat by 2030 was the theme of the 2016 INTEREST Conference held in Yaoundé, Cameroon on 3-6 May 2016. It attracted 369 active delegates from 34 countries, of which 22 were in Africa. The annual conference is jointly presented by AIGHD and Virology Education.

The conference focused primarily on HIV treatment, pathogenesis, and prevention research in resource-limited settings. The entire scientific program took place in plenary, with presentations on treatment optimization, acquired drug resistance, care of children and adolescents, laboratory monitoring and diagnostics, implementation challenges, HIV prevention, key populations, vaccine and cure, hepatitis C, financing the HIV response, and emerging pathogens. Spirited plenary debates were held on the UNAIDS 90-90-90 treatment cascade goal and on antiretroviral pre-exposure prophylaxis.

The 38 highest scoring scientific abstracts were highlighted in oral, mini-oral, and poster presentations. Duke University’s Guido Ferrari and AIGHD’s Cate Hankins, who is also INTEREST’s Scientific Chair, successfully competed for an USA National Institutes of Health/Fogarty International grant that provided travel support for young scientists chosen for oral abstract presentations.

The 10th INTEREST Workshop maintained the tradition of holding the highly popular Joep Lange career guidance sessions for young and early career researchers that had been introduced in 2015. Early morning grantspersonship sessions also attracted early career researchers. Cameroon’s Joseph Fokam won the Joep Lange INTEREST award for the highest scoring scientific abstract, entitled “Ultra-deep pyrosequencing of paediatric HIV-1 drug resistance and coreceptor suggests possible suitability of protease inhibitors and maraviroc at younger ages in Cameroon”. The Joep Lange INTEREST award provides registration, accommodation, and travel to the next INTEREST Workshop. The 2017 INTEREST Workshop is being held in Lilongwe, Malawi on 16-19 May 2017.

At the closing ceremony, the Yaoundé Declaration called on African governments; UNAIDS; development, bilateral, and multilateral partners; and civil society to adopt urgent and sustained approaches to end HIV by 2030.
SELECTED KEYNOTES & PRESENTATIONS

AIDS 2016, Durban
Peter Reiss
Introduced next (22nd) International AIDS Conference, AIDS 2018 in Amsterdam, during closing ceremony of AIDS 2016 in Durban.

UNAIDS PCB Meeting, Geneva
Peter Reiss
Invited Keynote speaker and panel discussant during the Thematic Segment on “Ageing and HIV”.

TB 2016, Durban
Sabine Hermans
Oral presentation: “Deterministic linkage to evaluate the burden of recurrent TB disease in Cape Town, South Africa”.

Scientific Research & TB Control & Prevention, Zhejiang
Frank Cobelens
Presentation on new concepts in latent tuberculosis infection

CROI 2016, Boston
Cate Hankins
Co-chair of plenary session on achieving 90-90-90 with Dr. Serge Eholie of Cote d’Ivoire entitled: “Reaching 90-90-90 and Beyond: Challenges and Innovations”.

From Innovation to Impact, Amsterdam
Frank Cobelens
Keynote address on health at public debate held at KIT, featuring Bill Gates.

TBnet Academy 2016: Odessa
Frank van Leth
Four-day masterclass for early-career physicians and researchers in the field of tuberculosis

XXXVI World Congress of the International Society of Hematology, Glasgow
Michael Boele van Hornebroek
Keynote speaker and presentation: “Anaemia, iron deficiency and susceptibility to infections”

Fourth Global Symposium on Health Systems Research, Vancouver
Pascale Ondoa and Winny Koster
SOCIALAB: Antenal Care (ANC) testing in Senegal

European Association for Communication in Healthcare (EACH) International Conference, Heidelberg
Christopher Pell (Presented by Janke Oosterhaven)
Conference paper: “Illness Perceptions And Health Literacy Skills Of Patients With Chronic Pain—A Qualitative Study”

Union Conference on Lung Health, Liverpool
Frank Cobelens
Conference paper: “Tuberculosis treatment monitoring: is a test of cure realistic?”
GLOBAL HEALTH SYMPOSIA

KICK-OFF SYMPOSIUM: AMSTERDAM PUBLIC HEALTH INSTITUTE’S GLOBAL HEALTH PROGRAM

23 September 2016

First networking event of the Amsterdam Public Health’s Global Health Program, set up by the VU University Medical Center Amsterdam and the University of Amsterdam’s Amsterdam Medical Center to strengthen collaborations between academia, research institutions, and implementing organizations in the Amsterdam region and developing nations. Discussions were focused on four key areas: urbanization, migration and environmental health; sexual, reproductive and child health; communicable diseases and NCDs; and health systems strengthening and governance.

GLOBAL HEALTH SYMPOSIUM: REFUGEE CARE

27 September 2016

By the end of 2015, 65.3 million people had left their homes in an effort to flee war and violence. A history of refugee care in the Netherlands was presented by five speakers, followed by a discussion on the need of an adequate response and research into the health problems faced by refugees.
PUBLICATION HIGHLIGHTS

URBANIZATION AND HEALTH

Coming of age, becoming obese: a cross-sectional analysis of obesity among adolescents and young adults in Malaysia.

Christopher Pell

Antimicrobial Drug Resistance

Protease Inhibitor Resistance in the First 3 Years of Second-Line Antiretroviral Therapy for HIV-1 in Sub-Saharan Africa.

Sonia Boender, Raph Hamers, Pascale Ondoa, Tobias Rinke de Wit, Kim Sigaloff

Affordable HIV drug-resistance testing for monitoring of antiretroviral therapy in sub-Saharan Africa.

Seth Inzaule, Pascale Ondoa, Tobias Rinke de Wit, Raph Hamers

Dissemination of the mcr-1 colistin resistance gene.

Menno de Jong, Constance Schultsz

Tradeoffs in Bedaquiline Introduction Policies: A Model Based Analysis.

Frank Cobelens

Treatment Outcomes in Multidrug-Resistant Tuberculosis.
Frank van Leth

Infectious Disease Elimination

Suboptimal viral suppression rates among HIV-infected children in low- and middle-income countries: a meta-analysis.

Ragna Boerma, Sonia Boender, Tobias Rinke de Wit, Michael Boele van Hensbroek, Kim Sigaloff

Community engagement and population coverage in mass anti-malarial administrations: a systematic literature review.

Christopher Pell

An emerging zoonotic clone in the Netherlands provides clues to virulence and zoonotic potential of Streptococcus suis.

Constance Schultsz

The timing of tuberculosis after isoniazid preventive therapy among gold miners in South Africa: a prospective cohort study.

Sabine Hermans

Circumcision for HIV Prevention: New Mathematical Models for Strategic Demand Creation Prioritizing Subpopulations by Age and Geography.

Catherine Hankins

Chronic Care and Ageing

HIV infection is independently associated with frailty in middle-aged HIV type 1-infected individuals compared with similar but uninfected controls.

Peter Reiss

Higher Prevalence of Hypertension in HIV-1-Infected Patients on Combination Antiretroviral Therapy Is Associated With Changes in Body Composition and Prior Stavudine Exposure.

Rosan van Zoest, Peter Reiss

Determinants of reduced cognitive performance in HIV-1-infected middle-aged men on combination antiretroviral therapy.

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Coming of age, becoming obese: a cross-sectional analysis of obesity among adolescents and young adults in Malaysia.

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Peter Reiss
STRENGTHENING CLINICAL RESEARCH CAPACITY IN SUB-SAHARAN AFRICA

The ARISE (Africa Research Initiative and Support Network) consortium was founded in 2012 as a joint venture of the existing COMMAL (College of Medicine – Malawi Amsterdam Liverpool) and INTERACT (Infectious Diseases Network for Treatment and Research in Africa) programs. These programs aimed at strengthening the sub-Saharan African research and development capacity in the field of poverty-related diseases (HIV, TB and malaria). The main objective of the ARISE consortium was to develop and consolidate a network of Research Support & Training Centers (RSTCs) in sub-Saharan Africa. These centers were to be embedded within local universities, have ownership of the research conducted and operate according to ICH-GCP research standards.

The ARISE project was successfully completed in June 2016 and the construction of the fourth Research Support & Training Center commenced at Makerere University, College of Health Sciences in Uganda. The center is expected to be launched and fully functional in 2017. Funding for the construction was provided by the NACCAP II ARISE Network, the Wellcome Trust and the NIH.
GOOD CLINICAL PRACTICE TRAINING

AIGHD, in collaboration with the Clinical Trials Unit at the Makerere University College of Health Sciences conducts Good Clinical Practice (GCP) training in Uganda. The two-day certificate course is recognized by the Uganda National Council for Science and Technology. Course participants are from various medical and organizational backgrounds including physicians, medical officers, pharmacists, lab technologists, Independent Review Board members, IT and data professionals, and research assistants. In 2016, GCP courses were conducted between September and December 2016 with a total of 124 participants.

EAST AFRICAN CONSORTIUM FOR CLINICAL RESEARCH

AIGHD-Uganda became an active member of the East African Consortium for Clinical Research (EACCR) in 2016. The EACCR is a partnership of 30 research and academic institutions in five East African countries (Tanzania, Uganda, Kenya, Sudan, and Ethiopia) and five European countries (United Kingdom, Netherlands, Germany, Sweden, and Norway). The aim of the consortium is to contribute to the accelerated discovery of new or improved drugs, vaccines and interventions to control targeted diseases in East Africa. It is sponsored by the European & Developing Countries Clinical Trials Partnership (EDCTP), the Netherlands-African partnership for Capacity Development & Clinical interventions Against Poverty (NACCAP), Medical Research Council (MRC)-UK and other development partners.
Where we work

Locations of our partners, funders and projects in 2016 include:

Africa
Cameroon, Gabon, Ghana, Kenya, Malawi, Nigeria, Rwanda, Senegal, South Africa, South Sudan, Tanzania, Uganda, Zimbabwe

Asia & Pacific
Australia, Bangladesh, China, India, Indonesia, Myanmar, Thailand, Vietnam

Europe
Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, United Kingdom

North & South America
Brazil, USA
The Amsterdam Institute for Global Health and Development is a not-for-profit organization based in Amsterdam and was established on 18 December 2006. On 14 April 2011, the legal entity was changed from the AMC CPCD Foundation to the Amsterdam Institute for Global Health and Development Foundation.

**Managing Risk**

AIGHD has identified the need of risk analysis and risk mitigation. The diversity of projects and the ever-changing environments in which these projects are implemented, require robust mechanisms to prevent, monitor and mitigate potential risks. AIGHD acknowledges the importance of internal control and risk management systems. A risk analysis will be done, assessing risks, controls and mitigating actions. The internal risk analysis, as well as significant changes and major improvements in internal control assessments will be discussed by the Executive Board and Supervisory Board. The procedure to screen potential local partners is currently in development. The General Manager is currently not aware of any significant changes in the organization's internal control that occurred during 2016 that has materially affected, or is reasonably likely to materially affect, the organization's internal control over its finances. Currently, the main financial risk is raising funding in challenging environments. The funding landscape is changing and competition for available resources has significantly increased. By prioritizing Global Health problems identified by relevant stakeholders, and developing relevant and specific solutions and translating these into well-targeted proposals, we will be better able to generate funding.

**Financials**

The total income in 2016 amounted to EUR 10.47 million (2015: EUR 8.84 million). AIGHD ends the financial year in 2016 with a surplus of EUR 434,024 (2015: surplus EUR 195,587). Added to the balance of income and expenditure, this surplus amounts to a total of EUR 1,340,581. This reserve will be used to secure the continuity of AIGHD and/or support its statutory goals.

The financial statements have been prepared in accordance with the Guideline for Annual Reporting 640 “not-for-profit organizations” of the Dutch Accounting Standards Board. Contrary to these guidelines, the overall budget level has not been included, as budget control has been performed at project level.

AIGHD is currently in contact with the tax authority concerning the handling of VAT. The main point of discussion is the accuracy of VAT deductions in past declarations. We anticipate that the outcome of this discussion will take some time. AIGHD is currently in the process of consulting a tax consultant.