For our readers: A special thank you to those of you who have provided feedback for the new combined format for the TB Wire and the TB-Related News and Journal Items Weekly Update. Contents now include: Announcements, Washington Update, Resources/Trainings, Selected TB Reports, Journal Articles, Grants, Job Opportunities and Meetings/Conferences/Events. The Table of Contents will be linkable in the near future. This continues to be a work-in-progress and feedback to setkind@stoptbusa.org is welcome and encouraged.

ANNOUNCEMENTS

WORLD TB DAY EVENTS: March 24th, 2013:

DOMESTIC

FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC):

Each year, we recognize World TB Day on March 24, often with a variety of activities leading up to the official day. This annual event commemorates the date when Robert Koch announced his discovery of the bacillus that causes tuberculosis (TB). Around the world, TB programs, non-governmental organizations, and others take advantage of the increased interest World TB Day generates to describe their own TB-related problems and solutions, and to support worldwide TB control efforts.

For the second year, CDC has adopted the global Stop TB Partnership’s World TB slogan, Stop TB in my lifetime. This slogan goes with the theme of calling for a world free of TB. The slogan and theme encourage people all over the world to make an individual call for the elimination of TB, and say what changes they expect in their lifetimes. This two-year campaign also allows us to build upon the messages and resources developed during the last World TB Day.

NEW TOOL: CDC World TB Day Web buttons

Web buttons are graphic elements used to share messages by linking to a website for additional information. You can help spread the word about World TB Day by posting a CDC World TB Day
web button on your organization’s website! Please click on this link to go to the CDC WTD web tools page http://www.cdc.gov/tb/events/WorldTBDay/WebResources.htm. Instructions on how to download the web buttons on to your website are on this page.

As March 24 falls on a Sunday in 2013, this provides an opportunity for a full week of activities leading up to the official day. For examples of past World TB Day events, links to planning resources, fact sheets, posters, and other materials that may be of assistance to you in your World TB Day activities, please visit the World TB Day section on the DTBE Website at http://www.cdc.gov/tb/events/WorldTBDay/default.htm. This webpage will continue to be updated with 2013 World TB Day information. World TB Day — Activities World TB Day — Resources History of World TB Day

FROM NTCA: NEWS FLASH! 2013 TB Awareness Walk

March 23, 2013 Grant Park, Atlanta, GA Distance: 2 miles

Support from sponsors is critical to our success. We welcome donations to offset the cost of park permits, applications, website registration, t-shirts, event supplies, etc. A portion of donations will also go towards supporting TB patients’ needs while in treatment. For a minimum $50 donation, you will receive a black and white image of your business or personal logo on back of the TB Walk t-shirt.

You will also receive a free t-shirt. If you would like to sponsor the TB Awareness Walk, please contact the National TB Controllers Association www.tbcontrollers.org. Cash and/or in-kind donations are welcomed. We hope you will join in our efforts as well as walk with us on March 23, 2013! "Together we can make a difference and Stop TB in My Lifetime." (Stop TB Partnership Slogan). Register

FROM THE REGIONAL MEDICAL AND CONSULTATION TRAINING CENTERS (RTMCCs)

The New Jersey Medical School Global TB Institute

Annual TB Conference: Toward Zero TB
Date: March 22, 2013 Location: Long Island City, NY

In commemoration of World TB Day, this conference will address TB prevention and control efforts in New York City to highlight progress in the fight against TB. Topics will include historical and current perspectives for addressing drug resistant TB, new modalities in the diagnosis and treatment of TB, ethical aspects of treating TB, updates in the management of TB-HIV co-infection, and taking steps to address TB among the foreign-born. Additional information can be found at: http://www.umdnj.edu/globaltb/training/trainingcalendar.html

The Heartland TB Center
Stop TB In My Lifetime: 5k Fun Run/Walk
March 22, 2013: San Antonio, TX.

Brochure and Registration Sheet available on the Class Information Sheet Click Here for Class Information

FROM RESULTS: 3 World TB Day Strategies

Outreach events: World TB Day is March 24. Want to do Outreach? Folks don't always have accurate information on what our country spends on foreign aid and on what a difference it can make in the lives of people. (Check out this video work by the ONE Campaign to hear more.) With that in mind, RESULTS is a powerful force in advocating for the end of tuberculosis as a disease of poverty, and so World TB Day is an annual opportunity to share about the strategic power of foreign aid to help us achieve sustainable, compassionate solutions for poverty-related issues. RESULTS chapters are encouraged to apply for World TB Day Mini-grants. Apply NOW for a World TB Day mini-grant to help you with costs associated with putting on an outreach event.

Touring TB media experts: RESULTS is also working with their Regional Coordinators to create a small handful of tours featuring international TB media experts. This set of tours won't allow for experts to travel everywhere, but there will be other chances later in the year. RESULTS chapters interested in hosting an expert and booking a meeting with them, you/your group, and your local editorial board, contact Lisa Marchal to talk about it.

Resources on Their Way. Soon RESULTS will have three resources/info items: a fresh editorial packet for WTBD, details on TB issue briefings on the Hill that you can let your members of Congress know about, and an update on the TB Caucus in the House which you can ask your representative to join.

GLOBAL

FROM THE WHO STOP TB PARTNERSHIP

Stop TB Partnership website

In 2013 we enter the second year of the 2-year Stop TB in my lifetime World TB Day campaign. The website for World TB Day 2013 is now live at www.stoptb.org/events/world_tb_day/2013/. On this site you will find a helpful guide for planning your World TB Day events, printable posters, slogan artwork and T-shirt designs. At a time when we are all calling for zero TB deaths, we need to make a stronger statement that having people dying from TB is an outrage. We all have personal hopes and dreams about a world free of TB.

Many of us feel it is not right that this terrible scourge has not gotten enough visibility and has not been taken on as a cause by champions whose voices have broad reach and who can easily make themselves heard. We have launched a new feature on our interactive site,

UCL WORLD TB DAY MEETING

Targeting zero deaths from TB: progress, reality and hope:
Monday 25th March 2013 9.00am – 6.30pm
The Atrium (ground floor), Royal Free Hospital, Rowland Hill Street, London NW3 2PF

UCL marks this year’s World TB Day with an event run in conjunction with The Lancet Infectious Diseases. Several overseas speakers will present their articles from the Lancet Infectious Diseases Special volume on TB edited by Dr Marco Schito (of NIH and the Henry Jackson Foundation) and Professor Ali Zumla, (of UCL Centre for Clinical Microbiology).

WASHINGTON UPDATE

Thanks to Nuala Moore for the following updated information. Nuala is the Senior Legislative Representative at the American Thoracic Society Washington Office.

Domestic Funding Update

The fiscal cliff deal postponed implementation of budget sequestration funding cuts for 2 months and there is now a new deadline of March 1 for sequestration. So budget sequestration is still on the table for Federal agencies. Congress has less than 2 weeks to work out a new plan. Sequestration would apply a funding cut of 8% across-the-board to most federal agencies including CDC and NIH. The current continuing resolution funding government agencies for FY2013 runs out at the end of March so funding for the rest of 2013 also has to be resolved. It is possible there will be another continuation resolution which would keep funding at the current levels.

The other important issue is that members have been selected for the House Appropriations subcommittee that allocates TB funding for CDC. The new chair is Jack Kingston (R-Savannah, GA) so his constituents will be key. The new democratic member is Congressman Honda from California. That is good news because of his demonstrated support of TB. Other new subcommittee members include Joyce of Ohio (Cleveland), Fleischman (Chattanooga, Tennessee) and Steve Womack (R-AR). In the Senate, Iowa Senator Harkin remains the Chair of the Labor-HHS Appropriations subcommittee. New members on the subcommittee are Merkley (D-OR), Tester (D-MT), Shaheen (D-NH) and Boozeman (R-AR).

The TB caucus now has 17 members. Ms. Moore urges Stop TB USA members to ask their House Representatives to join the Caucus in order to expand support TB funding in the House.

ATS and partners and USAID are planning a lot for World TB Day in March. There will briefings in
the House and Senate for World TB Day.

Regarding reauthorization, a work group is drafting an update to the current TB authorizing legislation - the Comprehensive TB Elimination Act that will be expiring. They aim to draft a bill that addresses all the emerging and ongoing issues (drug resistance, foreign born TB, etc.) and present to potential sponsors in 2013.

NEW RESOURCES

FROM TREATMENT ACTION GROUP (TAG):

Together with the website Take That TB, Treatment Action Group has created a listserv to connect TB and MDR-TB survivors and patients interested in conducting advocacy and connecting with others in this community. The listserv provides a platform for TB patients and survivors from around the world to share experiences, support one another and strategize on advocacy. If you're a TB patient or survivor and would like to join the group, please sign up here or contact Cordula Ehlers (cordula.tb@gmail.com) or Mike Frick (mike.frick@treatmentactiongroup.org).

HIV and AIDS Treatment in Practice 203: HIV and TB In Practice for nurses: Pregnancy and TB/HIV

Tuberculosis (TB) is the cause of death during pregnancy for somewhere between one in six and one in sixteen women, and pregnant women living with HIV are at especially high risk of dying due to TB. TB in a pregnant woman also increases the risk that babies will be born prematurely or with a low birth weight. TB during pregnancy is also associated with an increase in perinatal deaths. Among pregnant women with TB, there is also an increased risk that the baby will be infected with TB before and after birth, and of developing active TB.

When a pregnant woman is co-infected with HIV, TB doubles the risk of vertical transmission of HIV to the unborn child. This edition of HATIP for nurses explains how to prevent and treat TB in pregnant women to protect both mother and child. HATIP is a regular electronic newsletter for healthcare workers and community-based organisations on HIV treatment in resource-limited settings. For further information please visit www.aidsmap.com/hatip

FROM THE UNION:

Video presentations from the "Aspiring to Zero TB Deaths, New Infections, and Suffering" Symposium held at the 2012 International Union Against TB and Lung Disease World Conference in Kuala Lumpur are now available online! Discussion took place around four key topic areas: pediatric TB, case finding and diagnosis, TB treatment, and political will. Access the presentation videos and corresponding slides by clicking here!
Video » Annik Rouillon: Tuberculosis, the faithful companion of humanity

FROM TAG and WHO:

An Information Note on the use of Xpert MTB/RIF for increasing the timely detection of TB among people living with HIV. This document describes the early evidence on use of the tool – including research findings and modeling results – and provides algorithms for the management of people living with HIV and with presumptive TB. This document can also be found online:

http://www.who.int/tb/challenges/hiv/Xpert_TBHIV_Information_Note_final.pdf

HIGHLIGHTED TB REPORTS

FROM NPIN:

CALIFORNIA: "TB Stalks Filipinos in California County"
Inquirer Global Nation (The Philippines) (02.12.13):: Mila de Guzman

According to a recent health survey, Filipinos in Northern California’s Alameda County have a disproportionately high TB rate. One-third of the 328 Filipinos ages 18 to 84 surveyed in Union City, Calif., had latent TB infection (LTBI), and only half of them had been treated. This means that a large group of people with LTBI could infect US-born Filipinos later. Filipinos make up 20 percent of Union City’s residents. The Filipino Advocacy and Organizing for Health Project, a joint effort of Asian Health Services (AHS) and Filipino Advocates for Justices, conducted the survey to identify priority health concerns of Union City’s Filipino population.

The survey took one year to complete. Results also confirmed a finding by the Alameda County Public Health Department that between 2009 and 2011, Asians/Pacific Islanders had the highest average TB case rates in the county. Filipinos made up 18.3 percent of the TB cases among Asians and Pacific Islanders in Alameda County over the last 20 years. According to AHS Physician Assistant Christine Araneta Ignacio, director of the joint project, the disease does not come from recently arrived new immigrants—a popular misconception—but from longtime immigrants who have been infected or have had LTBI for many years. The disease becomes active as their health declines and is transmitted to others in the family. She notes that LTBI is easily treated, but many people are not aware of screening and treatment.

Also, the stigma and discrimination connected with the disease make Filipinos reluctant to admit that they have LTBI. Language proficiency, financial hardships, and lack of insurance coverage are some of the reasons suggested for the inability to take advantage of the medical system. Ignaclos hoped that the study would be replicated in other areas since Filipinos are the largest Asian group in California. The results would provide a bigger sampling from which to draw more meaningful
conclusions.

NORTH CAROLINA: "Supply Shortage Brings Halt to Testing for TB"
Lincoln Times-News (Lincolnton, NC) (02.14.13): Sarah Lowery

Due to a manufacturer’s shortage of Tubersol, the Lincoln County Health Department announced on February 11 that it will not be able to offer routine tuberculin skin testing until further notice. In a press release, the North Carolina Tuberculosis Program recommended that all local health departments prioritize the testing to include only those persons who are considered the highest public health risk according to state guidelines.

The program also advises health departments to defer routine testing until the shortage is resolved, which officials expect could be several months. For those health departments that cannot defer testing, the Lincoln County Health Department will provide an alternative blood test. This test is significantly more expensive than skin testing, but is appropriate for screening purposes. The health department will notify the public when skin testing can resume.

INDIA: "Microsoft Research Battles Tuberculosis in India" Triple Pundit (02.20.13): Leon Kaye

The nongovernmental organization (NGO) Operation ASHA has been working with Microsoft Research to fight TB in India. Microsoft Research has developed biometric devices that track treatment of Operation ASHA’s patients. Operation ASHA uses the directly observed therapy, short course (DOTS) program, which requires patients under TB treatment to come to the clinic and be observed taking the medication. Treatment can require up to 50 visits to a clinic or hospital to receive treatment under the supervision of a healthcare worker.

However, many patients live far from the clinics or work long hours and are unable to go to the clinic. As a result, many do not complete treatment, which results in the disease becoming drug-resistant. With biometrics, this can be avoided.

When a government hospital refers a patient to Operation ASHA, the patient registers at one of the clinics, which includes providing a fingerprint. The data are kept in small centers located close to the patient being treated. If a patient skips a dose of medicine, Operation ASHA’s system sends a member to one of the local health counselors affiliated with the NGO. The counselor then walks to the patient’s home and administers the drug. The NGO’s health centers are usually a tiny storefront that offers safe and discreet location at which TB patients can take their medication. If they miss a scheduled dose, someone comes to them. Microsoft Research has donated the biometric devices to Operation ASHA.

The new system makes their job easier by automating patient tracking, thus helping reduce the spread of the disease, particularly in neighborhoods where extended families live in close quarters. The system was started in 2006, but only began in Bhiwandi 5 months ago. Bhiwandi is a
city of 925,000 residents—mostly migrants from poorer regions of India, most of whom work in the city’s textile industry where working conditions include the long hours, low pay, and exposure to cotton lint that can exacerbate TB.

**FROM RESULTS: DAVID BRYDEN, TB ADVOCACY OFFICER**

**U.S. News Examines Growing Threat Of Drug-Resistant TB**

U.S. News and World Report examines the growing epidemic of drug-resistant tuberculosis (TB), highlighting a “new paper [published](http://masetto.ingentaselect.co.uk/fstemp/a5829970064042ab6ec12023d514ef4f.pdf) earlier this week in the Centers for Disease Control and Prevention’s Emerging Infectious Diseases journal warning that the first cases of ‘totally drug-resistant’ tuberculosis have been found in South Africa and that the disease is ‘virtually untreatable.’” The magazine continues, "Drug-resistant TB isn't just a South African problem," noting "more than 100 cases of [multi-drug resistant TB (MDR-TB)] have been detected in the United States over the past eight years, and there have been high-profile outbreaks in Peru, Russia, and India over the past decade."

According to the WHO, "22 'high burden' countries (including South Africa) account for 80 percent of the world's TB cases," with "the organization's most recent report noting that the 'global burden of TB remains enormous,'" the magazine writes (Koebler, 2/11).

**Two articles on Drug Shortages:** Data to advocate for expanding access to quality-assured treatment. Patients are accessing first-line TB drugs off the shelf, and the quality is poor enough that some are likely dying as a result while others are likely developing resistance.

1) **Substandard and falsified anti-tuberculosis drugs: a preliminary field analysis** R. Bate, P. Jensen, K. Hess, L. Mooney, J. Milligan*  This article will be in the March IJLTD issue.

http://masetto.ingentaselect.co.uk/fstemp/a5829970064042ab6ec12023d514ef4f.pdf

2) The 2011 paper by William Wells et al. that looks at the size of private markets for TB drugs in high burden countries (all of the drugs in our study were purchased in poorly regulated private markets). They studied the markets in 10 countries and found that the private markets for TB drugs were large enough to treat 66% of incident cases in those countries -- with some pretty high variance between countries.

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0018964

**Where Are the TB Alarms?** (from the RESULTS website)

We’ve watched as the media has sounded the alarm around SARS, Bird Flu, and even this year’s annual flu virus - every major media outlet has covered these global health stories. But where is the alarm and concern about tuberculosis? Where is the sense of urgency around a disease that has gone from a treatable form to become multi-drug resistant tuberculosis (MDR-TB), then extensively drug-resistant tuberculosis (XDR-TB), and now totally drug-resistant TDR-TB? What are we waiting for? Where are the alarms when TB killed 1.4 million and nearly 9 million people
fell ill with it in 2011? Shouldn't we be concerned that someone who develops an active case of TB will infect, on average, 15 people with whatever strain they have—including all of the drug-resistant strains? Where are the extraordinary measures for a disease that is the second largest infectious killer in the world behind HIV/AIDS?

Read more on why we should be alarmed on our blog.

FROM WHO:

1) Post 2015 TB Strategy: At the World Health Assembly (WHA) 2012, Ministers of Health called on the World Health Organization (WHO) to develop a post-2015 TB strategy and accompanying targets for their consideration in 2014. WHO working with the Stop TB Partnership, is pursuing this process. Partners were invited through a questionnaire to provide ideas on the way forward; analysis was done of varying country epidemics; followed by formulation of possible new targets, and a strategy framework with three proposed pillars: innovative TB care, bold policies & supportive systems and intensified research and innovation.

The WHO Strategic and Technical Advisory Group (STAG-TB) endorsed the approach and plans for further consultation, and along with partners debated options for goals and targets. Further input has come at regional meetings of National TB Programme Managers, and at meetings linked to the 43rd Union World Conference on Lung Health. WHO and the Stop TB Partnership have created portals to gather further input and feedback. The final proposed strategy and targets should be presented to the WHA in 2014. To access the post-2015 TB strategy webpage please click here.

2) Introduction and rational use of new drugs/regimens for the treatment of tuberculosis in countries: The landscape of drug development for treatment of tuberculosis (TB) has evolved dramatically over the last ten years. A series of Phase II and III trials of shortened treatment of drug-susceptible (DS) TB including repurposed drugs (e.g. fluoroquinolones) or new dosages of known drugs (e.g. rifamycin, rifapentine) are presently on-going, with earliest results expected in 2013/14.

For the first time in nearly 50 years, two new molecular entities proposed for the treatment of Multi-Drug Resistant (MDR) TB are currently making their way through the regulatory pathway in the EU and the US. Additionally, other new compounds and novel combinations of drugs are being investigated for the treatment of DS and/or MDR/XDR-TB. Treatment shortening regimens as well as substitution compounds for existing regimens are being investigated. In this context, the WHO Strategic and Technical Advisory Group on Tuberculosis (STAG-TB) endorsed in June 2012 a plan to develop necessary policy guidance for the introduction and use of new TB drugs within recommended regimens.

The plan also calls for WHO to support the optimal uptake of new TB drugs/regimens, once results of drug trials become available and drugs are granted license for market access by
regulatory authorities, and foster the optimal uptake and rational use of new TB drugs within defined regimens in programmatic conditions. For more information please click here.

FROM THE UNION:

**Project LIGHT doubles the number of TB cases notified at test sites in India:** Project LIGHT, which introduced LED-based fluorescent sputum-smear microscopy services at 200 medical colleges across India, resulted in the notification of 5,495 new sputum-smear microscopy cases in 2012, more than double the number diagnosed in 2011. Read more . . .

FROM APHA: 7 steps to rewire public health for the future

Tight budgets, workforce shortages, increasing demands. There is no lack of challenges facing the public health community. But with those challenges come opportunities to transform the delivery of public health programs and services and improve health outcomes. A new report from APHA delivers lessons from its 2012 Midyear Meeting along with key recommendations for positioning public health for the future. new APHA report

Wondering where to start? Here are seven recommendations presented in the report:

1. Adapt and thrive. Facing formidable challenges, public health must adapt, innovate and even take risks. It’s time to ask hard questions: Are we being efficient enough? Does this activity or service still provide good value?

2. Champion "health in all policies." Now is the time to reach out to transportation planners, land-use decision-makers, school administrators, business owners and other would-be partners to engage them in improving community health. Get them involved in changing and creating the conditions for good health.

3. Engage the medical community. The Affordable Care Act embraces the notion that health happens both inside and outside the doctor’s office. Creating a new health system means integrating health care and public health.

4. Pick a partner. In a time of limited resources and competing priorities, community-based partnerships that engage and empower stakeholders may be the surest path to sustainability.

5. Share @PublicHealth. Learn how new technologies and communications tools can help you better reach the communities you serve and harness data to create opportunities for better health.

6. Demonstrate value. Collect data and stories to illustrate the value of public health in people’s lives and demonstrate return on investment.
7. Emphasize equity. Improving the nation’s health can’t come about without addressing health inequities. Fight for policies and resources that create the opportunities for all people to live healthy and prosper.

Read more about the recommendations and the APHA Midyear Meeting in the full report: "The New Public Health: Rewiring for the Future"

JOURNAL ARTICLES (February 11-22, 2013)


Initiating antiretroviral therapy when presenting with higher CD4 cell counts results in reduced loss to follow-up in a resource-limited setting. Clouse K, Pettifor A, Maskew M, Bassett J, Van Rie A, Gay C, Behets F, Sanne I, Fox MP.


Antivir Ther. 2013 Feb 19. [Epub ahead of print]

Risk of tuberculosis after antiretroviral treatment initiation: a comparison between efavirenz and nevirapine using inverse probability weighting. Hermans SM, Manabe YC, Kiragga AN, Hoepelman Al, Lange JM, van Leth F.

BMC Infect Dis. 2013 Feb 18;13(1):88. [Epub ahead of print]


Tuberculosis of gallbladder neck: a cause of cholecystitis with cholelithiasis. Verma SK, Mishra AK, Jaiswal AK.

Clin Endocrinol (Oxf). 2013 Feb 16. [Epub ahead of print]
Pattern of adrenal morphology and function in pulmonary tuberculosis: response to treatment with anti tubercular therapy. Laway BA, Khan I, Shah BA, Choh NA, Bhat MA, Shah ZA.

Clin Microbiol Infect. 2013 Feb 11. [Epub ahead of print]

Interferon-γ release assays in the diagnosis of active tuberculosis disease in a low-incident setting: a 5-year review of data. Lavender TW, Barrett A, Magee J, Ong EL.


Increased Bacterial Hemolytic Activity is Conferred by Expression of TlyA Methyltransferase but not by its 2'-O-methylation of the Ribosome. Monshupanee T.


Frequency, diagnosis and management of fungal respiratory infections. Hayes GE, Denning DW.

Epidemiol Infect. 2013 Feb 18:1-7. [Epub ahead of print]

Tuberculosis in captive Asian elephants (Elephas maximus) in Peninsular Malaysia. Ong BL, Ngeow YF, Razak MF, Yakubu Y, Zakaria Z, Mutalib AR, Hassan L, Ng HF, Verasahib K.


Granulomatous lesions in bone marrow: Clinicopathologic findings and significance in a study of 48 cases. Brackers de Hugo L, Ffrench M, Broussolle C, Sève P.

Int J STD AIDS. 2013 Feb 19. [Epub ahead of print]


Integrating patients’ perspectives into integrated tuberculosis-human immunodeficiency virus health care. Daftary A, Padayatchi N.


Advocacy, communication and social mobilisation for tuberculosis control in Pakistan: a qualitative case study. HAQ Z, Khan W, Rizwan S.

PubMed: www.amedeo.com/p2.php?id=23407229&s=tb&pm=2


Free tuberculosis diagnosis and treatment are not enough: patient cost evidence from three continents. MAUCH V, Bonsu F, Gyapong M, Awini E, et al.

Risk factors and timing of default from treatment for non-multidrug-resistant tuberculosis in Moldova. JENKINS HE, Ciobanu A, Plesca V, Crudu V, et al.


Relapse more common than reinfection in recurrent tuberculosis 1-2 years post treatment in urban Uganda. LUZZE H, Johnson DF, Dickman K, Mayanja-Kizza H, et al.


Integrating patients’ perspectives into integrated tuberculosis-human immunodeficiency virus health care. DAFTARY A, Padayatchi N.


Int J Tuberc Lung Dis. 2013

Non-adherence and drug-related interruptions are risk factors for delays in completion of treatment for tuberculosis. PETTIT AC, Cummins J, Kaltenbach LA, Sterling TR, et al.

PubMed: www.amedeo.com/p2.php?id=23394818&s=tb&pm=2

Int J Tuberc Lung Dis. 2013


PubMed: www.amedeo.com/p2.php?id=23394767&s=tb&pm=2


Experiences of the diagnosis and management of tuberculosis: a focused ethnography of Somali patients and healthcare professionals in the UK. Gerrish K, Naisby A, Ismail M.

**Fluorescent Probes Reveal a Minimal Ligase Recognition Motif in the Prokaryotic Ubiquitin-like Protein from Mycobacterium tuberculosis.** Smirnov D, Dhall A, Sivanesam K, Sharar RJ, Chatterjee C.


**Validation of Mycobacterium tuberculosis Rv1681 protein as a diagnostic marker of active pulmonary tuberculosis.** POLLOCK NR, Macovei L, Kanunfre K, Dhiman R, et al.


*J Clin Microbiol.* 2013 Feb 20. [Epub ahead of print]

**A magnetic bead protocol for culturing Mycobacterium tuberculosis from sputum specimens.** Ghodbane R, Drancourt M.


**T cells home to the thymus and control infection.** Nobrega C, Nunes-Alves C, Cerqueira-Rodrigues B, Roque S, Barreira-Silva P, Behar SM, Correia-Neves M.

*J Infect.* 2013 Feb 12. doi:pii: S0163-4453(13) [Epub ahead of print]

**Tuberculosis: Time for a new perspective?** Elkington PT.

*J Infect Dis.* 2013 Feb 13. [Epub ahead of print]
Tuberculosis relapse in Vietnam is significantly associated with Mycobacterium tuberculosis Beijing genotype infections. Huyen MN, Buu TN, Tiemersma E, Lan NT, Dung NH, Kremer K, Soolingen DV, Cobelens FG

J Infect Dis. 2013 Feb 13. [Epub ahead of print]

Rv1894c is a novel hypoxia-induced nitronate monooxygenase required for Mycobacterium tuberculosis virulence. Klinkenberg LG, Karakousis PC.


PubMed: www.amedeo.com/p2.php?id=23391465&s=tb&pm=2

Microbiology. 2013 Feb 14. [Epub ahead of print]

Disruption of the Serine Threonine Protein Kinase H affects Phthiocerol Dimycocerosates Synthesis in Mycobacterium tuberculosis. Gómez-Velasco A, Bach H, Rana AK, Cox LR, Bhatt A, Besra GS, Av-Gay Y.


Isoniazid- and rifampicin-induced thrombocytopenia. Yakar F, Yildiz NA, Yakar A, K L Çaslan Z.


*Tuberculosis (Edinb).* 2013 Feb 12. [Epub ahead of print]


*Tuberculosis (Edinb).* 2013 Feb 12. [Epub ahead of print]

The clinical significance of CA-125 in pulmonary tuberculosis. Kim ES, Park KU, Song J, Lim HJ, Cho YJ, Yoon H, Lee J, Lee CT, Park JS.

*Tuberculosis (Edinb).* 2013 Feb 11. [Epub ahead of print]

COURSES

FROM THE RTMCCs:

The Southeast National TB Center (SNCTC)

Comprehensive Clinical TB Course
Date: 3/4/2013 - 3/7/2013 Time: 8:00 AM - 5:00 PM Eastern
Location: SNCTC Format: Clinical course

This four-day intensive course will familiarize the clinician with all the aspects of tuberculosis infection, disease and clinical care using an interdisciplinary and interactive approach. The curriculum is provided through lecture, interactive case management sessions. The faculty is selected for their unique skill in encouraging interaction and building rapport with participants. The atmosphere is relaxed with an expectation that a free exchange of questions, comments and information will occur.

Tuberculin Skin Test Train-the-Trainer Course
Date: 3/8/2013 - 3/8/2013 Time: 8:00 AM - 5:00 PM Eastern
Location: SNCTC Format: Lecture/didactic

This one-day skill-building course provides the knowledge needed to plan, teach, and evaluate a Mantoux Tuberculin Skin Test (TST) course. The course content includes skills for planning and conducting a TST training, including adult learning principles and teaching strategies. The curriculum is provided through lecture and participatory activities, including practicum in TST administration and reading and instructional skills demonstration.

Each participant must demonstrate proficiency in delivering course content plus administering and reading the TST. Participants will receive feedback from experienced trainers as they practice their skills. Topics include: adult learning principles for instructors, tips and tools to plan and conduct a successful TST training, and TST course curriculum review and demonstration

Webinar: Tuberculosis & Transplantation - Diagnosis & Management of Donor Derived Infection
Date: 3/18/2013 Time: 10:00 AM - 12:00 PM Eastern Location: SNCTC via webinar - available on SNCTC's website: http://sntc.medicine.ufl.edu/Webinars.aspx

This webinar will include an overview of the organ procurement process and the current donor screening techniques. It will outline the current status of TB in transplantation and review the historical experience with donor-derived tuberculosis. Diagnosis and management of donor-derived tuberculosis will be covered.
TB Drug Shortage: The Current Problem and What States are Doing

Date: 2/5/2013 (recorded) Time: 10:00 AM - 12:00 PM Eastern

Location: SNTC via web Format: Archived webinar (available on SNTC's website: http://sntc.medicine.ufl.edu/Webinars.aspx

This Grand Rounds presentation provides information on the current TB drug shortage. Dr. Sundari Mase provides an overview of the current situation, the CDC's perspective, and offers potential solutions to state's concerns. Input from states throughout the country who are experiencing this drug shortage firsthand is included. Presenters: Sundari Mase, Neha Shah, Jon Warkentin, Phil Griffin, Coco Jervis

The New Jersey Medical School Global TB Institute

Medical Update: TB Technical Instructions for Civil Surgeons - Implications for Health Departments
Date: April 3, 2013 Location: Web-based

This webinar will provide an overview of the TB Technical Instructions for US civil surgeons and discuss their implications for health department providers. Case presentations will be used to explore strategies for collaboration as well as appropriate referral and follow-up of adjustment of status applicants. Additional information can be found at: http://www.umdnj.edu/globaltb/training/trainingcalendar.html

TB Intensive Workshop
Date: April 23-26, 2013 Location: Newark, NJ

This workshop for clinicians provides comprehensive information on the principles and application of TB diagnosis and treatment, as well as the management of TB in special populations. Topics will include transmission and pathogenesis, diagnosis and treatment, drug resistance, TB-HIV co-infection, TB in children and adolescents, and key aspects of patient management. Lectures, interactive discussions, small group work and case studies will be used to enhance TB knowledge and clinical practice. Additional information can be found at: http://www.umdnj.edu/globaltb/training/trainingcalendar.html

Diagnosis and Treatment of Latent Tuberculosis Infection

The Heartland TB Center

Course Schedule Click Here for Class Information

TB Update

Date: March 22, 2013 Location: San Antonio, TX.
The goal of this training is to enhance the expertise of health care staff through providing updates in TB research, treatment regimen, laboratory, and ethical considerations. Using interactive lectures participants will be able to: identify TB and substance abuse co-morbidities that may impact the management and treatment of TB infection and disease, describe the Interferon Gamma Release Assay (IGRA), discuss the newest findings from TB research, review and discuss recommendations and options for treating latent TB infection (LTBI), describe molecular tests available for drug resistant TB and their use, and discuss the impact of TB in the life of persons with TB within the community.

**TB Nurse Case Management: An Online Course**

Date: February 28-March 7, 2013 Location: Online

The goal of this on-line is to provide an introduction to TB nurse case management. The curriculum will include the basic elements, knowledge, and skills essential for the registered nurse whose primary responsibility is the care and supervision of patients with active TB in order for the nurse to be able to competently and successfully manage these patients.

An actual TB case will be used throughout all learning modules to illustrate proper procedures and case management. Upon course completion, participants will be able to assess and manage TB patients by: defining what encompasses TB nurse case management and its standard of care; obtaining a comprehensive social history, preparing the patient for treatment, evaluating and documenting all aspects of case management processes, identifying key elements of effective infection control, and discussing the fundamental components of TB contact investigations that are the responsibility of the case manager.

**FROM NATIONAL JEWISH MEDICAL AND RESEARCH CENTER:**

**The 50th Annual Denver TB Course**
April 10-13, 2013 and October 9-12, 2013
Denver, Colorado

The purpose of this course is to present this body of knowledge to general internists, public health workers, infectious diseases and chest specialists, registered nurses, and other health care providers who will be responsible for the management and care of patients with tuberculosis. For more information and to register, please call 800.844.2305 or visit www.njhealth.org/TBCourse

**FROM THE UNION:**

TREAT TB designs online learning programme for operational research

The Union’s TREAT TB initiative has created an E-tool for Operational Research to help meet the urgent need for health professionals with the skills to conduct this type of research independently. Read more . . .

**The Union's International Management Development Programme 2013 Courses** : To register for
any of these courses, visit www.union-imdp.org or email imdp@theunion.org to receive more information. Course fee for all courses includes lodging, breakfast, lunch, coffee and tea breaks, and course materials.

**Supply Chain Management**: 6 – 11 May, 2013 Kuala Lumpur, Malaysia

The objective of this course is to provide participants with practical knowledge and skills needed to manage drugs and laboratory commodities needed in today’s TB programs. Taught by pharmaceutical supply management specialist and TB doctor with more than 20 years of experience, the techniques presented during lectures will be applied during realistic exercises and simulations.

Key topics the course addresses: Discovering the key global actors in production, financing and distribution of TB drugs and supplies; Gathering technical knowledge about first- and second-line TB medicines; Strengthening procurement skills; Writing better pharmaceutical supply management plans for grants

**Mass Media and Communications**: 10 – 14 June, 2013 Cape Town, South Africa

Demonstrating how effective communications strategies can help promote TB programs, this course guides participants over various ways on how to disseminate important health messages to the public. Key topics the course addresses: Creating powerful health education messages; Writing professional press releases; Outreach to media officials to help promote health topics; Increasing advocacy abilities for community mobilization

**Leading Management Teams**: July 15 –20, 2013 Kuala Lumpur, Malaysia

Bringing measurable changes within a TB program requires a comprehensive approach to performance management. Participants in this course will learn how to more effectively guide groups of personnel through advanced management training by examining their own leadership styles. Key topics the course addresses: Creating measurable results in a TB program through long-term planning; Leading changes in a health organization that build greater staff commitment, competence, and confidence; Achieving higher success rates through enhanced team performance; Developing team members through coaching and mentoring

**Strategic Planning and Innovation**: August 19 – 24, 2013 Kuala Lumpur, Malaysia

Planning strategies that anticipate potential obstacles in TB programs is a challenge for any national TB programme manager who is expected to develop and adhere to strategies for a country’s health projects. Participants in this course will become stronger leaders within their health organizations who are able to foresee potential difficulties and confidently meet them by developing successful health program strategies. Key topics the course addresses: Learn how to lead a participative strategic planning activity within your TB program; Develop a focused approach to strategy implementation; Expand your operations by creatively using simple tools
and techniques; Strengthen health systems through exploration of innovative and creative practices

**Budget and Financial Management** September 16 - 21, 2013 Kuala Lumpur, Malaysia

This course provides participants with advanced training in the budget-development process for national health programs. Participants will learn how to develop, manage, and monitor a budget, as well as understand how to cope with issues such as variance analysis, cash flow, and expenditures. Key topics the course addresses: Creating comprehensive budgets for national TB programs and international donor applications; Developing cash flow analyses and budget forecasts; Designing financial reports and incorporating useful reporting techniques; Monitoring budgets throughout a project cycle

**Influencing, Networking and Partnership** 23 – 27 September, 2013 Chicago, United States of America

Creating partnerships and networks is an important element to the success of a TB program. Participants in this course will learn how relationship building and developing strong partnerships can boost health program results. Key topics the course addresses: Developing useful networks among health organizations; Creating partnerships to expand a project’s reach; Building group consensus to achieve greater results Balancing relationships to create high-performing teams.

**Project Management** 14 – 19 October 2013 Kuala Lumpur, Malaysia

Project planning is one of the fundamental steps in managing any health program. This six-day course demonstrates to participants useful project management techniques to improve work flow. Participants are exposed to a variety of perspectives and are guided to higher levels of expertise in their project management skills. Key topics the course addresses: Implementing monitoring and evaluation plans for projects; Linking schedules to resources for greater cost effectiveness; Identifying key stakeholders in a project design Properly mobilizing resources to match a project’s needs.

**GRANTS**

From CDC National Prevention Information Network's (NPIN) Funding Database:

**Fund Number: 4616** - Fund Title: Research In Latent Tuberculosis Infection (LTBI) in the Setting of HIV C o-Infection (R01)

The purpose of this FOA is to stimulate research about the role of microbiologic adaptive mechanisms, host immunologic factors, and their interactions in the development, maintenance, and re-activation of latent tuberculosis infections (LTBI) with a focus on HIV co-infection. Mechanisms of TB latency are poorly understood. LTBI occurs when Mycobacterium tuberculosis
(MTB) persists in the host without signs of active disease, yet maintains the potential to cause active tuberculosis.


Application Due Date: 07/25/2013

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**JOB POSTINGS/POSITION OPPORTUNITIES**

**FROM THE WHO/STOP TB PARTNERSHIP:**

The WHO and the Stop TB Partnership are seeking applications to fill two vacancies on the Global Green Light Committee (gGLC) Call for applications http://www.who.int/tb/challenges/mdr/greenlightcommittee/en/index.html

The World Health Organization and the Stop TB Partnership are announcing a call for applications for two members to serve on the Global GLC Committee (gGLC) in 2013-2015. A global strategic committee (the "gGLC") was established in 2011 as an advisory committee to WHO, with a dual role of advising WHO and partners.

Applicants are being sought for two members to serve on the gGLC for the term April 2013 – March 2015. Applicants should note that: 1) Members are to be appointed onto the gGLC in their individual capacity; and 2) Members will be selected to ensure that the two respective relevant technical areas are represented, and the perspectives of a broad range of constituencies and regions continue to be represented on the committee.

Two members are being sought to represent the following technical areas and constituencies:

**Member 1. Technical areas (focused on drug-resistant TB) Programmatic management of DR-TB care**

Constituencies Implementing partners Countries - NTP or other governmental representatives from a high burden country

**Member 2. Technical areas (focused on drug-resistant TB) Drug management**

Constituencies Technical partners; Implementing partners - International non-governmental organizations

Closing date of applications has been extended to close of business on March 18, 2013

**FROM UNITAID:**

The NGOs Delegation to the UNITAID Board is seeking applications for a new Alternate Board Member (unpaid position).

Application deadline: 12:00 noon GMT, Friday 20 March 2013. Interviews expected between 15 and 27 April 2013 (TBC) Please send completed applications to the UNITAID Civil Society Delegations Liaison Officer, Leila Zadeh: LZadeh@oxfam.org.uk Full terms of reference for the
role, outline of the application process, background information and an application form are attached or available by sending an email to LZadeh@oxfam.org.uk.

The Position: The NGOs delegation to the Executive Board of UNITAID, representing NGOs involved in the global fight against HIV, TB and malaria, is looking to appoint a new Alternate Board Member. The Alternate will work with the NGOs Board Member, Civil Society Delegations Liaison Officer and the Civil Society Delegations’ Contact Group to represent the whole constituency of NGOs working on the three diseases. Applicants must be affiliated to an NGO working to combat at least one of the three diseases, whether as an employee, trustee, volunteer, consultant etc., and must be willing to commit 15-25% of their working time to the position.

Applicants must have the support of their organisation for the role and time commitment. The term of service for the NGOs Alternate Board Member is 2 years (June 2013-June 2015), after which, subject to satisfactory performance, they may be offered the position of Board Member for a further two years. The new Alternate Board Member should be available to attend the UNITAID Board meeting in Geneva on 6-7 June 2013 and the Civil Society Delegations pre-meeting from 3 to 5 June.

A handover is planned with the current NGOs Board Member and Alternate during this time. Please note this is an unpaid position but travel costs will be covered by the UNITAID secretariat or the grant to the Civil Society Delegations. Some support towards telephone and other office costs can also be provided.

For more information on UNITAID, please see www.unitaid.eu.

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MEETINGS, CONFERENCES AND EVENTS

EVENTS

NATIONAL PUBLIC HEALTH WEEK: April 1st, 2013 http://www.nphw.org/nphw09/default.htm

MEETINGS/CONFERENCES

(Alphabetically listed by sponsoring organization)

AMERICAN COLLEGE HEALTH ASSOCIATION (ACHA):

ACHA 2013 Annual Meeting: May 28 - June 1, 2013, Boston, Ma

Five days of networking, collaboration, and continuing education! This year we honor the spirit of service and compassion that college health professionals have shown in their dedication to serving college students and their campus communities.
AMERICAN PUBLIC HEALTH ASSOCIATION (APHA):

141st APHA Annual Meeting: November 2 - November 6, 2013, Boston, MA

The APHA Annual Meeting & Exposition is the oldest and largest gathering of public health professionals in the world, attracting more than 13,000 national and international physicians, administrators, nurses, educators, researchers, epidemiologists, and related health specialists. APHA's meeting program addresses current and emerging health science, policy, and practice issues in an effort to prevent disease and promote health. APHA has a world of public health in store for you. Review the Program-at-a-Glance (PDF) to get a quick visual image of the APHA 2013 Annual Meeting Schedule. Click the dates below for specific information on that day's schedule.

Saturday, 11/2 | Sunday, 11/3 | Monday, 11/4
Tuesday, 11/5 | Wednesday, 11/6

The theme of the meeting is: Think Global, Act Local: Best Practices Around the World. For more information about each session type visit www.apha.org/meetings/sessions/.

AMERICAN THORACIC SOCIETY (ATS):


This conference provides that will offer the latest information on clinical, basic and translational science in pulmonary, critical care and sleep medicine. With more than 500 sessions, 800 speakers, and 5,300 original research abstracts and case reports, ATS 2013 invites attendees to learn about an exciting array of topics in adult and pediatric pulmonary, critical care, and sleep medicine, or to concentrate on a specific clinical or scientific interest.

Full ATS 2013 program information and registration for Postgraduate Courses, Sunrise and Meet the Professor seminars, the Thematic Seminar Series, and workshops is available at conference.thoracic.org/2013. For more information about the International Conference, please click here.

You may also email conference@thoracic.org. If you experience a technical problem while registering, please call 866-635-3585 or email thoracic@xpressreg.net.

Call for Abstracts for the TB Public Health Poster Forum at the ATS meeting

As in past years, the conference features a CDC/Stop TB USA-sponsored Public Health Poster Forum on Sunday, May 19th from 7 p.m. to 9 p.m. The poster session will focus on innovative techniques that help meet the challenges of TB prevention, control, and elimination in the United States. The poster presentations are excellent, the discussions lively, and the session provides a great opportunity to meet others involved in TB control.

Please consider developing an abstract for poster presentation on a significant or innovative
aspect of your TB control program for this 2013 poster forum.

Topics include: 1) Updated policies/procedures and successful activities for conducting TB-related contact investigations, including successful treatment completion in contacts identified with LTBI; 2) The use of programmatic and epidemiologic data to develop and update policies and procedures; 3) Successful activities for the evaluation and treatment of immigrants and refugees; 4) Reports of TB outbreaks, including surveillance and program activities related to detection and control of outbreaks, MDR TB outbreaks, and the development and use of outbreak response plans; 5) Successful activities or interventions to prevent and eliminate TB in high-risk populations, such as African-American communities, foreign-born persons, homeless persons, or populations along the U.S./Mexico border; 6) Innovative and successful interventions to increase adherence and completion of treatment for TB disease and LTBI; 7) Successful activities or interventions to prevent and eliminate TB in persons with HIV-infection; 8) Successful activities or interventions to prevent and eliminate TB in persons incarcerated in correctional facilities; 9) Successful training and education materials, courses, or sessions for TB program staff, public and private healthcare providers, or successful educational efforts developed for patients with LTBI or disease; 10) Successful efforts to comprehensively evaluate and improve TB prevention and control programs; and 11) Successful implementation of the use of new diagnostic tests for LTBI or TB disease.

This year we are again asking for electronic submission of the poster abstracts. Since this session is sponsored by CDC, rather than the ATS, these abstracts will not be published in the ATS conference book. However, all abstracts will be printed and handed out at the session. Instructions for abstract submission, related forms, and a sample abstract are Found Here.

Please use the attached electronic form to describe your proposed poster. Abstracts should be submitted to Dr. Sundari Mase at fyy0@cdc.gov or Dr. Christine Ho at gtb9@cdc.gov. The deadline for receipt of abstracts is March 15, 2013. We will make notifications regarding acceptance of abstracts by April 1, 2013.

ASSOCIATION OF PRACTITIONERS IN INFECTION CONTROL (APIC):

40th Advancing infection prevention education Annual conference
June 7-10, 2013 Fort Lauderdale, Florida annual@apic.org

ASSOCIATION OF PUBLIC HEALTH LABORATORIES (APHL):


ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICERS (ASTHO):

CALIFORNIA TB CONTROLLERS ASSOCIATION (CTCA):

2013 CTCA Conference; May 29-31, 2013, San Jose, California

Our 47th CTCA Educational Conference, Blazing New Trails in TB Control: Combatting Drug Resistance and Putting Molecular Diagnostics into Practice will be held at the DoubleTree by Hilton in San Jose. A Curry International Tuberculosis Resource Center Training will follow on May 31st. Registration will open soon on ctca.org.

HEALTH CARE FOR THE HOMELESS CLINICIANS NETWORK:

2013 National Health Care for the Homeless Conference & Policy Symposium
March 14-16, 2013, Washington, D.C.,

Registration Conference Schedule and Workshop Descriptions


The Eighth National Conference on Quality Health Care for Culturally Diverse Populations: Achieving Equity in an Era of Innovation and Health System Transformation: March 11 - 14, 2013, Oakland, CA

Health reform and systems change have the potential to greatly improve the health and lives of diverse patients and communities. This conference will explore how changes in policy, financing, information technology, clinical practice and systems design can improve health care delivery -- and how these transformations must accommodate the unique needs posed by cultural and linguistic diversity. Descriptions of preconference sessions and a draft conference agenda are available now on the conference website: www.diversityrx.org/2013-conference-agenda

NATIONAL ASSOCIATION OF COUNTY AND CITY HEALTH OFFICERS (NACCHO):

NACCHO Annual 2013, July 1-12th 2013, Dallas, TX. REGISTER NOW! or Download Individual Registration Form

NATIONAL TB CONTROLLERS ASSOCIATION (NTCA):


Conference agenda and hotel information will be released in early March. For questions regarding the conference, please contact: Donna Wegener, NTCA Executive Director at dhwegener@tbcontrollers.org or Eva Forest eforest@tbcontrollers.org678 503-0503 or Sherry Brown sbrown@tbcontrollers.org

A "Call for Abstracts" and abstract instructions can be Found Here: Call for Abstracts, Instructions
. The deadline for receipt of abstracts is Monday, April 15, 2013.

RESULTS:

**International Conference 2013:** July 20-23, 2013, Crystal City, Arlington, Virginia
Professor Muhammad Yunus to be Keynote Speaker [REGISTRATION FOR THE 2013 RESULTS INTERNATIONAL CONFERENCE IS OPEN! Learn more on our website.](http://www.results.org/events/IC_2013/)

THE UNION:

**North American Region of the IUATLD:** February 22 - March 2, 2013, Vancouver, Canada

17th Annual Conference of the Union-North America Region TB: "the Air We Share". The conference is taking place at the Sheraton Vancouver Wall Centre Hotel in Vancouver, BC, Canada. There will be a timely Stop TB morning session co-sponsored by Stop TB Canada and Stop TB USA titled "International initiatives: Childhood TB and Other Control Interventions" followed immediately by the Stop TB USA Advocacy and TB funding update session.

TB control program directors and managers should be interested in attending both of these sessions Download forms below by clicking on the links: [Conference Brochure Preliminary Program Venue Registration Form](#)

**44th World Conference on Lung Health:** October 30 - November 3, 2013, Paris, France

The Union welcomes all authors to submit their abstracts. The 2013 theme is "Shared air, safe air?" **Paris 2013 - Download Brochure** The 44th Union World Conference on Lung Health is a 5 day conference covering the latest developments, opportunities and challenges in tuberculosis, HIV, tobacco control, lung health and non-communicable diseases. Go to **the website** for details.

VIROLOGY EDUCATION

**6th International workshop on Clinical Pharmacology of TB Drugs**

September 9, 2013, Denver CO, USA

The aim of this abstract driven workshop is to make a significant contribution to the optimization of TB treatment by bringing experts together to present and discuss the latest important scientific findings in the TB clinical Pharmacology field. Ample time is reserved to discuss and translate scientific and regulatory issues to further optimize TB treatment. The format will be a one-day workshop with invited lectures, abstract presentations and sufficient Q&A time to guarantee an intimate and highly interactive event.

We encourage you to submit your data for an oral or poster presentation on the following topics:
Pharmacokinetics and Pharmacodynamics of Approved TB Drugs; Pharmacokinetics and Pharmacodynamics of New TB Drugs; Pharmacokinetic- & Pharmacodynamics modeling; Drug-drug and drug-disease state interactions; TB treatment in special populations; New Drug Development Methods.

The Workshop Materials from the 5st edition of this workshop are available on our website.