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**New markers for monitoring TB treatment:
Impacta aids development through
STEPS-EXPRESS31 study**

While HIV treatment has benefitted from rapid drug development, tuberculosis drug development has been excruciatingly slow. The same standard four-drug tuberculosis drug treatment has been used for more than 40 years. There is an urgent need for new tuberculosis treatments that are shorter, better tolerated and more effective. This is particularly critical because of the global spread of multi-drug resistant tuberculosis.





Lack of early markers of treatment success or failure is a major barrier that slows tuberculosis drug development. When treating HIV, we can quickly see if the treatment is successful by monitoring HIV viral load. There is no similar marker for monitoring tuberculosis treatment. Traditionally, continuing growth of *M. tuberculosis* in sputum collected after two months of treatment has been considered a marker for poor treatment response. However, recent studies have shown that sputum culture is not accurate. Absence of an accurate early marker for treatment response is an important reason that tuberculosis drug trials are large, expensive and require years to complete.

The STEPS-EXPRESS31 study aims to find new markers for monitoring tuberculosis treatment. STEPS-EXPRESS31 is a sub-study nested in ACTG A5349/TBTC Study31, a multi-national clinical trial of 4-month tuberculosis treatments. Selected participants in ACTG A5349/TBTC Study31 will give sputum and blood specimens during their treatment.

STEPS-EXPRESS31 is a new approach because it uses gene expression profiling to directly monitor how the *M. tuberculosis* bacteria infecting our patients adapt during treatment. The bacterium is very adaptable. In response to treatment, it changes its physiologic state by turning on and off specific genes. This enables it to survive drug treatment. Instead of monitoring just the number of bacteria present in sputum, STEPS-EXPRESS31 will therefore monitor the “vital signs” of the bacterial population. We believe that this will be an important tool leading to development of new tests that will speed up tuberculosis drug development.

STEPS-EXPRESS31 was developed by investigators from the University of California San Francisco, Stanford University, the University of Colorado Denver and Yale University with funding from the National Institute of Allergy and Infectious Diseases. STEPS-EXPRESS31 will co-enroll participants in ACTG A5349/TBTC Study31 in four countries: Peru, Kenya, Uganda and Vietnam.

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WE PARTICIPATE IN...:

COREMUSA Callao Assembly

On Wednesday, January 13, the first general meeting of the Coordinadora Regional Multisectorial de Salud (COREMUSA) of Callao was held, in which we participate as members. During this first meeting, we evaluated the activities carried out in the context of World AIDS Day, celebrated on 1st December 2015. Also, proposals of activities for the summer season 2016 were presented, and the next election of the new board was scheduled. Gonzalo Meneses, psychologist and educator of the community area of Impacta, was our representative in this first meeting.



Mapping of Socialization Places of the MSM and Transgender Community

Since the last weeks of December to mid-January, the team of educators from Impacta, together with Vía Libre and the main health promoters of the MSM and transgender community from Lima and Callao, mapped out the busiest and most important socialization places for these populations. The updating of this information is part of our preparation for the study Antibodies Mediate Prevention (AMP), and also allowed us to contact more vulnerable groups in areas of North Lima, South Lima, East Lima, Lima Center and Callao, and work together with other stakeholders who are a benchmark for health and support for these communities.



FELLOWS: Beatrice Matthews

Fascinating Experience!

My name is Beatrice Matthews, and I am a recent graduate of the University of Colorado, Boulder. I graduated with an emphasis in International Affairs, specifically Latin America. Over the past few months, I have had the opportunity to work with the various departments of Impacta including recruitment, coordination, data management, and the lab department. Although the day-to-day assignments varied depending on which department I was in, all studies aimed to develop new and improved health procedures (vaccines and treatments).

Specifically, my first rotation was with the Recruitment and Retention office. In this department I worked closely with several members of Impacta to reach out to high risk populations which included but was not limited to, men who have sex with men (MSM), and transgender women (TGW) in Peru, and hopefully recruit them to take part in our study. The study aimed to research the most effective way of encouraging someone to notify his or her partner of any sexually transmitted diseases. While there were several different objectives throughout my time at Impacta, some included evaluating the differences in outcomes between people who notified their partners by themselves, without the help of a counselor from Impacta, and those who were given assistance via advise on how the person should inform their partners in addition to other tools.

My experience at Impacta has taught me a lot from the tasks that go into maning an NGO, the implementation of a protocol, and retaining and recruiting people to participate in the studies.

I would like to thank Dr. Jorge Sanchez for allowing me this wonderful opportunity, and of course the entire Impacta community. In addition to Dr. Sanchez, Patricia Segura, Natalia Fajardo, Maria Fernandez- Maldonado, Cecelia Chang, as well as so many others made this experience possible for me. To the Recruitment and Retention team, thank you so much for always supporting, encouraging, and helping me improve my Spanish, as well as meeting me all the way at Impacta so I could tour the field with you! I am fortunate enough to have worked with Impacta, and hope to be able to return to Peru soon, Impacta truly is full of highly ambitious, and caring people. I am very grateful to have been given this opportunity, and am proud to have been a part of the Impacta team.



Editor:
Gonzalo
Meneses