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Pan American Center for Foot-and-Mouth Disease and Veterinary Public Health

INNOVACIÓN PARA LA SALUD Y EL BIENESTAR DE LAS COMUNIDADES



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The logo for 'World Leish7' features the word 'WORLD' in blue, with a globe icon integrated into the letter 'O'. Below it is a stylized mosquito icon. To the right of the mosquito is the word 'LEISH7' in red, with the number '7' in green.

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## **1. WELCOME TO THE WORLDDLEISH7**

The logo for WorldLeish7 features the word "WORLD" in blue, with a globe icon integrated into the letter "O". Below "WORLD" is a blue sandfly icon. To the right of the sandfly is the word "LEISH7" in red, with the number "7" in green. The background of the page is decorated with colorful abstract shapes, including concentric circles and irregular organic forms in shades of blue, red, green, and yellow.

Every four years, leishmaniacs from around the world gather in WorldLeish to discuss the latest advancements around these neglected tropical diseases and the seventh version was not an exception. In 2022, we had the participation of around 700 people, from 47 countries. Also, we had a great response from 536 students and professionals from around the world who sent us their abstracts to be part of the event as a poster or oral communications presentation and we are glad to say that we counted 195 oral presentations and 341 posters.

The experience and knowledge of the 210 speakers enriched the 44 Symposia, 8 Round Tables, 4 Special Meetings, 5 Plenary talks and 4 Successful stories that took place in those 6 days.

For Colombia and specifically the University of Antioquia, it was an honor to be the host of this Congress. And, for PECET, is a recognition for its almost 40 years of effort, research and hard work to treat leishmaniasis.

I would like to express my gratitude for your participation in this seventh version of the congress. Thanks to the knowledge and contributions, of all participants, it has been a complete success.

We know that it was not easy at all, however seeing all of you in Cartagena filled us with deep pride for the great challenge undertaken and the achievement reached.

May these events strengthen our "leishmaniac" spirit and recharge us to continue working in favor of this NTD.

Thank you very much.

With the expression of my admiration and respect.

A handwritten signature in black ink, appearing to read "Ivan Dario Vélez".

Ivan Dario Vélez  
Chair WorldLeish7



## **2. GENERAL SCHEDULE**

# WORLD LEISH7

MONDAY August 1st		Time	TUESDAY August 2nd	WEDNESDAY August 3rd	THURSDAY August 4th	FRIDAY 27 August 5th	Time	SATURDAY August 6th	
		7:00 - 8:00	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION			
		8:00 - 9:00	PLENARY TALK #1	PLENARY TALK #2	PLENARY TALK#3	PLENARY TALK #4	8:30 - 9:30	PLENARY TALK #5	
		9:00 - 9:30	SUCCESSFUL STORY #1	SUCCESSFUL STORY #2	SUCCESSFUL STORY #3	SUCCESSFUL STORY #4	9:30 - 10:00	COFFEE BREAK	
		9:30 - 10:00	COFFEE BREAK					10:00 - 11:30	SPECIAL MEETING #4
		10:00 - 11:30	SATELITE SYMPOSIUMS (sessions 1 - 5)	SATELITE SYMPOSIUMS (sessions 12-16)	SATELITE SYMPOSIUMS (sessions 23-27)	SATELITE SYMPOSIUMS (sessions 33 -38)		AWARDS	
		11:30 - 13:00	SATELITE SYMPOSIUMS (sessions 6 -11)	SATELITE SYMPOSIUMS (sessions 17 - 22)	SATELITE SYMPOSIUMS (sessions 28 - 44) SPECIAL MEETING #2	SATELITE SYMPOSIUMS (sessions 39 - 44)	11:30 - 12:00.		
		13:00 - 14:00	LUNCH	LUNCH	POSTER PRESENTATION Session 3	LUNCH	12:00 - 13:10	CLOSING LECTURE	
		14:00 - 15:30	SPECIAL MEETING #1	ROUND TABLE (1 - 4)	LUNCH/ FREE AFTERNOON			CLOSING REMARKS	
14:00 - 19:00	REGISTRATION	15:30 - 16:30	ORAL COMMUNICATIONS (sessions 1 - 7)	ORAL COMMUNICATIONS (sessions 15 - 21)			ROUND TABLE (5 - 8) ORAL COMMUNICATIONS (sessions 29 -35)		
17:30 - 18:00	OPENING SESSION	16:30 - 17:30	POSTER PRESENTATION Session 1	POSTER PRESENTATION Session 2			POSTER PRESENTATION Session 4		
18:00 - 19:00	INAUGURAL LECTURE	17:30 - 18:00	COFFEE BREAK		COFFEE BREAK		13:10 - 13:30		
19:00 - 20:30	WELCOME RECEPTION	18:00 - 19:00	ORAL COMMUNICATIONS (sessions 8 - 14)	ORAL COMMUNICATIONS (sessions 22 - 28)	ORAL COMMUNICATIONS (sessions 36 - 41)				



## **4. ORAL COMMUNICATION**



## **037-02: BLOCKADE OF TLR2 AND TLR4 ATTENUATES INFLAMMATORY RESPONSE AND PARASITE LOAD IN CUTANEOUS LEISHMANIASIS**

**Pedro Paulo Carneiro<sup>1</sup>, Andreza Santos Dórea<sup>1</sup>, Walker Oliveira<sup>1</sup>, Luiz Henrique Guimarães<sup>4</sup>, Cláudia Brodskyn<sup>3</sup>, Edgar M. Carvalho<sup>2,3</sup>, Olívia Bacellar<sup>1,2</sup>**

<sup>1</sup>Serviço de Imunologia, Hospital Universitário Prof. Edgard Santos, Universidade Federal da Bahia, Salvador, BA, Brazil; <sup>2</sup>Instituto Nacional de Ciência e Tecnologia de Doenças Tropicais - INCT-DT (CNPq/MCT), Salvador, BA, Brazil; <sup>3</sup>Gonçalo Moniz Institute (IGM), Fiocruz, Salvador, Bahia, Brazil; <sup>4</sup>Universidade Federal do Sul da Bahia, Bahia, Brazil

Human cutaneous leishmaniasis (CL) caused by *Leishmania braziliensis* is characterized by a strong inflammatory response that is associated with the ulcer development. Monocytes / macrophages are the main cells that harbor the parasite and are also responsible for parasites control. Toll-like receptors signaling pathway (TLR) is the first pathogen defense systems and leads to the transcription of inflammatory mediators such as the production of IL-1 $\beta$  and TNF during the innate immune response. We recently showed that *in vitro* infection with *L. braziliensis* caused CL monocytes to upregulate TLR2 and TLR4 expression, which was associated with TNF production. As TLR antagonist molecules have been used in the treatment of inflammatory diseases, our hypothesis is that the neutralization of these receptors may attenuate the strong inflammatory response observed in this disease. The aim of this study is to evaluate the role of TLR2 and TLR4 antagonists in the modulation of exaggerated inflammatory immune response observed in CL. Monocytes from CL patients and healthy subjects (HS) were treated with anti-TLR2 and anti-TLR4 and infected with *L. braziliensis*. The evaluation of infection and the parasite load was evaluated after cytospin preparations by optical microscopy. The expression of the oxidative burst, TNF, IL1 $\beta$ , IL-10, CXCL9 and CXCL10 were analyzed by flow cytometry. Cells from CL lesions were also treated with anti-TLR2 and anti-TLR4 and the evaluation of

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chemokine and cytokine production by these cells was performed by enzyme-linked assay (ELISA). We observed that after neutralization of these receptors, the number of infected cells and the number of internalized parasites decreased in monocytes from CL patients. TLR2 and TLR4 neutralization also decrease oxidative burst as well IL-1 $\beta$ , TNF and CXCL9 production by monocytes from CL patients. Also, TNF production by cells from CL lesions decreased after TLR2 and TLR4 neutralization. The attenuation of host inflammatory response after neutralizing these receptors suggests the potential of TLR antagonists as immunomodulators in association with antimonial therapy in human cutaneous leishmaniasis.

**Keywords** CUTANEOUS LEISHMANIASIS; *LEISHMANIA BRAZILIENSIS*; TOLL-LIKE RECEPTORS; INNATE IMMUNITY; CYTOKINES

**Financing** The National Institutes Of Health (AI 136032 TO E.M.C)

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