



**Prof. Luis I. Terrazas**

Professor

National Autonomous University of Mexico, Mexico

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**Luis I. Terrazas**

**Actual Position:**

Full Professor at Universidad Nacional Autónoma de México (UNAM), Level C (maximum level)

Head of Unidad de Investigación en Biomedicina, Facultad de Estudios Superiores Iztacala, UNAM

Principal Investigator at Laboratory of Immunoparasitology and Immunoregulation

**Phone:** \*5255 5623-1333 ext.39794 or 39773. Cell phone. 52 1 55 1059 9239

**e-mail:** [literrazas@unam.mx](mailto:literrazas@unam.mx); liter3112@yahoo.com

**EDUCATION**

Bachelor level: Biologist. Facultad de Biología. Universidad Veracruzana, Xalapa, Ver. México, 1989.

Master (Immunology). Universidad Nacional Autónoma de México (UNAM), 1992, graduated with honors.

PhD (Immunology). Universidad Nacional Autónoma de México (UNAM). July 9, 1998.

Postdoctoral fellow: School of Public Health, Department of Immunology and Infectious Diseases. Harvard University. Boston Massachusetts, USA. April 1999-November 2001.

Visiting professor: The Ohio State University, Department of Microbiology. Columbus, OH. USA. September 26-30, 2007; February 20-26, 2009.

Academic Exchange: The Ohio State University, Department of Pathology. Columbus, OH. USA. Aug - Sept 2012, Dec 2012-Jan 2013 and March-May 2013.

Recipient of a Fulbright Fellowship

**Member of Associations**

American Association of Immunologists 2002-

American Society for Microbiology 2002-

Sociedad Mexicana de Inmunología 2002-

Sociedad Mexicana de Parasitología

2006-

Society of Mucosal Immunology 2015-

### **Selected Publications (From 85)**

1. **Terrazas, L. I.**, R. Bojalil, T. Govezensky and C. Larralde. (1994). “A role for 17-beta-estradiol in immunoendocrine regulation of murine cysticercosis (*Taenia crassiceps*).” **Journal of Parasitology** **80(4): 563-8.**
2. **Terrazas L.I.**, K.L. Walsh and D. A. Harn (2001). The schistosome oligosaccharide Lacto-N-neotetraose expands Gr-1+ cells that secrete anti-inflammatory cytokines and inhibit proliferation of naïve CD4+ cells. A potential mechanism for immune polarization in helminth infections. **Journal of Immunology** **167: 5294-5303.**
3. Rodríguez-Sosa M., John R. David, Rafael Bojalil, Abhay R. Satoskar and **Terrazas L.I.** (2002). Cutting Edge: Susceptibility to the larval stage of the helminth parasite *Taenia crassiceps* is mediated by Th2 response induced via STAT-6 signaling. **Journal of Immunology.** **168: 3135-3139.**
4. Rodríguez-Sosa M., A.R. Satoskar, R. Calderón, L. Gomez-Garcia, R. Saavedra, R. Bojalil, and **Terrazas L.I.** (2002). Chronic helminth infection induces alternatively activated macrophages expressing high levels of CCR5 with low IL-12 production and Th2-biasing ability. **Infection and Immunity.** **70 (7): 3656-3664.**
5. Rodríguez-Sosa M., Rosas L.E., David J. R., Bojalil R., Satoskar A.R. and **Terrazas L.I.** (2003). Macrophage Migration Inhibitory Factor plays a critical role in mediating protection against the helminth parasite *Taenia crassiceps*. **Infection and Immunity.** **71 (3): 1247-1254.**
6. Rodríguez-Sosa M., Saavedra R., Tenorio E.P., Rosas L.E., Satoskar A.R. and **Terrazas L.I.** (2004). A STAT4-dependent Th1 response is required for resistance to the helminth parasite *Taenia crassiceps*. **Infection and Immunity.** **72 (8): 4552-4560.**
7. **Terrazas L.I.**, Montero D, Terrazas C.A., Reyes J.L. and Rodríguez-Sosa M. (2005). Role of the Programmed Death-1 pathway in the suppressive activity of alternatively activated macrophages in experimental cysticercosis. **International Journal for Parasitology,** **35:1349-1358.**
8. Reyes J.L., **Terrazas L.I.**, Espinoza B., Gómez-García L., Cruz-Robles D., Rivera-Montoya I., Satoskar A.R. and Rodríguez-Sosa M. (2006). Macrophage Migration Inhibitory Factor (MIF) contributes in host defense against acute *Trypanosoma cruzi* infection. **Infection and Immunity.** **74: 3170-3179.**

9. **Terrazas L.I.** (2008). The complex role of pro- and anti-inflammatory cytokines in cysticercosis: immunological lessons from experimental and natural hosts. **Curr Top Med Chem.** **8(5):383-92.**
10. Flores M., Saavedra R., Tenorio E.P., Leng L., Sánchez Y., Juárez I., Shenoy A.S, **Terrazas L.I.**, Bucala R., Satoskar A.R., Rodriguez-Sosa M. (2008). Macrophage migration inhibitory factor (MIF) is critical for the host resistance against *Toxoplasma gondii*. **The FASEB Journal**, **22:3661-71.**
11. Sanchez-Zamora Y., **Terrazas L. I.**, Vilches A., Juarez I., Whitacre C., Kithcart A., Satoskar A.R., Rodríguez-Sosa M. (2010). Macrophage migration inhibitory factor is a therapeutic target in treatment of non-insulin-dependent diabetes Mellitus. **The FASEB Journal**, **24 (7):2583-2590.**
12. Terrazas C. A., Gomez-Garcia L. and **Terrazas L. I.** (2010). Impaired pro-inflammatory cytokine production and Th1-biasing ability of dendritic cells exposed to *Taenia* excreted/secreted antigens: a critical role for carbohydrates but not for STAT-6 signaling. **International Journal for Parasitology**, **40: 1051-1062.**
13. César A. Terrazas, Marcela Hernández, Laura Bonifaz, **Luis I. Terrazas**, and Abhay R. Satoskar (2013). Helminth-excreted/secreted products induce cRAF phosphorylation in dendritic cells to block the TLR response and bias Th2 polarization. **The FASEB Journal**, **27(11): 4547-4560.**
14. Mireya Becerra-Díaz and **Luis I. Terrazas** (2014). *Taenia crassiceps* infection and its excreted/secreted products inhibit STAT1 activation in response to IFN- $\gamma$ . **International Journal for Parasitology**, **44: 613–623.**
15. Sonia León-Cabrera, Blanca E. Callejas, Yadira Ledesma-Soto, Carlos Pérez-Plasencia, Emma B. Gutiérrez, Federico Avila-Moreno, Miriam Rodríguez-Sosa, Yolanda I. Chirino and **Luis I. Terrazas** (2014). Extraintestinal helminth infection reduces the development of colitis-associated tumorigenesis. **International Journal of Biological Sciences**, **10 (9): 948-956.**
16. Alberto N. Peón and **Luis I. Terrazas** (2016). Immune-regulatory mechanisms of classical and experimental multiple sclerosis drugs: special focus on helminth-derived treatments. **Current Medicinal Chemistry** **23 (999) .**
17. [Cesar Terrazas](#), [Juan de Dios Ruiz-Rosado](#), [Stephanie A. Amici](#), [Kyle A. Jablonski](#), [Diana Martinez-Saucedo](#), [Lindsay M. Webb](#), [Hanna Cortado](#), [Frank Robledo-Avila](#), [Steve Oghumu](#), [Abhay R. Satoskar](#), [Miriam Rodriguez-Sosa](#), **[Luis I. Terrazas](#)**, [Mireia Guerau-de-Arellano](#) and [Santiago Partida-Sánchez](#). (2017). Helminth-induced Ly6C<sup>hi</sup> monocyte-derived alternatively activated macrophages suppress experimental autoimmune encephalomyelitis. **Scientific Reports**, **7: 40814.**

18. C. E. Matisz, B -L. Faz López, E. Thomson<sup>1</sup>, A. Al Rajabi, F. Lopes, **L. I. Terrazas**, A. Wang, K. A. Sharkey & D. M. McKay (2017). [Suppression of colitis by adoptive transfer of helminth antigen-treated dendritic cells requires interleukin-4 receptor- \$\alpha\$  signaling](#). **Scientific Reports** 7:40631.
19. Leon-Cabrera, S. A., Molina-Guzman, E., Delgado-Ramirez, Y. G., Vázquez-Sandoval, A., Ledesma-Soto, Y., Pérez-Plasencia, C. G., Ávila-Moreno, F., Rodríguez-Sosa M & **L.I. Terrazas** (2017). Lack of STAT6 attenuates inflammation and drives protection against early steps of colitis-associated colon cancer. **Cancer Immunology Research**, 5(5), 385-396.
20. López-Urrutia, E., Coronel-Hernández, J., García-Castillo, V., Contreras-Romero, C., Martínez-Gutierrez, A., Estrada-Galicia, D., **L.I. Terrazas** & Pérez-Plasencia, C. (2017). MiR-26a downregulates retinoblastoma in colorectal cancer. **Tumor Biology**, 39(4):1-9, doi:10.1177/1010428317695945.
21. Peón, A. N., Ledesma-Soto, Y., Olguin, E. J., Bautista-Donis, M., Sciutto-Conde, E., & **L.I. Terrazas** (2017). Helminth products potently modulate experimental autoimmune encephalomyelitis by down-regulating neuroinflammation and promoting a suppressive microenvironment. **Mediators of Inflammation**. Volume 2017, Article ID 8494572, 16 pages
22. Arlett Espinoza-Jiménez, Roberto De Haro and **Luis I. Terrazas** (2017). *Taenia crassiceps* antigens control experimental type 1 diabetes by inducing alternatively activated macrophages. **Mediators of Inflammation**. Volume 2017, Article ID 8074329, 15 pages <https://doi.org/10.1155/2017/8074329>.
23. Jonadab E. Olguín, Itzel Medina-Andrade, Emmanuel Molina, Armando Vázquez, Thalia Pacheco, Rafael Saavedra, Carlos Pérez-Plasencia, Yolanda I. Chirino, Felipe Vaca-Paniagua, Luis E. Arias-Romero, Emma B. Gutierrez-Cirlos, Sonia A. León-Cabrera, Miriam Rodríguez-Sosa, and **Luis I. Terrazas** (2018). Early and Partial Reduction in CD4<sup>+</sup>Foxp3<sup>+</sup> Regulatory T Cells during Colitis-Associated Colon

Cancer Induces a CD4<sup>+</sup> and CD8<sup>+</sup> T Cell Activation Inhibiting Tumorigenesis.  
**Journal of Cancer. 9 (2): 239-249.** doi: 10.7150/jca.21336.

**24. Terrazas L.I., Vaca-Paniagua F. (2018).** Cancer immunotherapy: accelerating the immune response without releasing the brakes. **Transl Cancer Res 2018.** doi: 10.21037/tcr.2018.05.21

**Citations:** More than 1,900

### **Editorial work**

**Book Editor :** Advances in the Immunobiology of Parasitic Diseases. ISBN 81-308-0166-3.  
**Editor: Luis I. Terrazas.** Published by Research Signpost. Kerala, India. **2007.**

**Referee** for more than 25 different International Journals

Guest Editor: **Journal of Biomedicine and Biotechnology, Special Issue: Immunology and Cell Biology of Parasitic Diseases**, February, 2010.

Guest Editor: **Experimental Parasitology, Special Issue: Immunology and Cell Biology of Protozoan Parasites**, November, 2010

Guest Editor: **International Journal of Biological Sciences: Special Issue on Innate and Cellular Immunology in Parasitic Diseases**, November, 2011.

Guest Editor: **Journal of Biomedicine and Biotechnology, Special Issue: Immunology and Cell Biology of Parasitic Diseases**, December, 2011.

Guest Editor: **BioMed Research International, Special Issue: Immunology and Cell Biology of Parasitic Diseases**, July, 2012

Guest Editor: **BioMed Research International, Special Issue: Immunology and Cell Biology of Parasitic Diseases**, June, 2014.

Guest Editor: **Bioscience Reports, Themed Issue: Innate and Cellular Immunology in Parasitic Diseases**, June, 2018.

### **AWARDS**

Medal “José Antonio Alzate”, 2016, State of México in the field of Sciences by outstanding service. Undergraduate Faculty Travel Award, American Association of Immunologists (2012, 2013, 2014 and 2017).

Travel award, Society of Mucosal Immunology, 2015.

Prize for Science and Technology, State of Mexico award, 2007.