Transcriptomic response of *Balamuthia mandrillaris* to *Lippia graveolens* extract fractions.

Leobardo Daniel Gonzalez-Zuñiga[1], Jose Reyes Gonzalez-Galaviz[2], Abraham Cruz-Mendívil[3], Fernando Lares Villa[4], Erick Paul Gutiérrez-Grijalva[5], Jaime López-Cervantes[6], Dalia I. Sánchez-Machado[6], Luis Fernando Lares-Jiménez[4], Libia Zulema Rodriguez-Anaya[2]*

[1] Programa de Doctorado en Ciencias en Especialidad en Biotecnología. Departamento de Biotecnología y Ciencias Alimentarias, Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México; leobardo.gonzalez121194@potros.itson.edu.mx
[2] Investigadoras e investigadores por México-Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México; jose.gonzalez@itson.edu.mx; libia.rodriguez@itson.edu.mx or libia.rodriguez@secihti.mx
[3] Investigadoras e investigadores por México-Instituto Politécnico Nacional, Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional Unidad Sinaloa, Guasave, Sinaloa, México; acruzme@ipn.mx
[4] Departamento de Ciencias Agronómicas y Veterinarias, Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México; flares@itson.edu.mx; luis.lares@itson.edu.mx
[5] Investigadoras e investigadores por México-Centro de Investigación en Alimentación y Desarrollo, AC., Sinaloa, México; erick.gutierrez@ciad.mx
[6] Departamento de Biotecnología y Ciencias Alimentarias, Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México; jaime.lopez@.itson.edu.mx; dalia.sanchez@.itson.edu.mx

* Correspondence: libia.rodriguez@itson.edu.mx or libia.rodriguez@secihti.mx; Tel.: +52-6444109000 (ext. 2318)

Figure S1. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 48 hours vs control samples.
Figure S2. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 96 hours vs control samples.
Figure S3. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 120 hours vs control samples.
Figure S4. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 48 hours vs control samples.
Figure S5. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 96 hours vs control samples.
Figure S6. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 120 hours vs control samples.

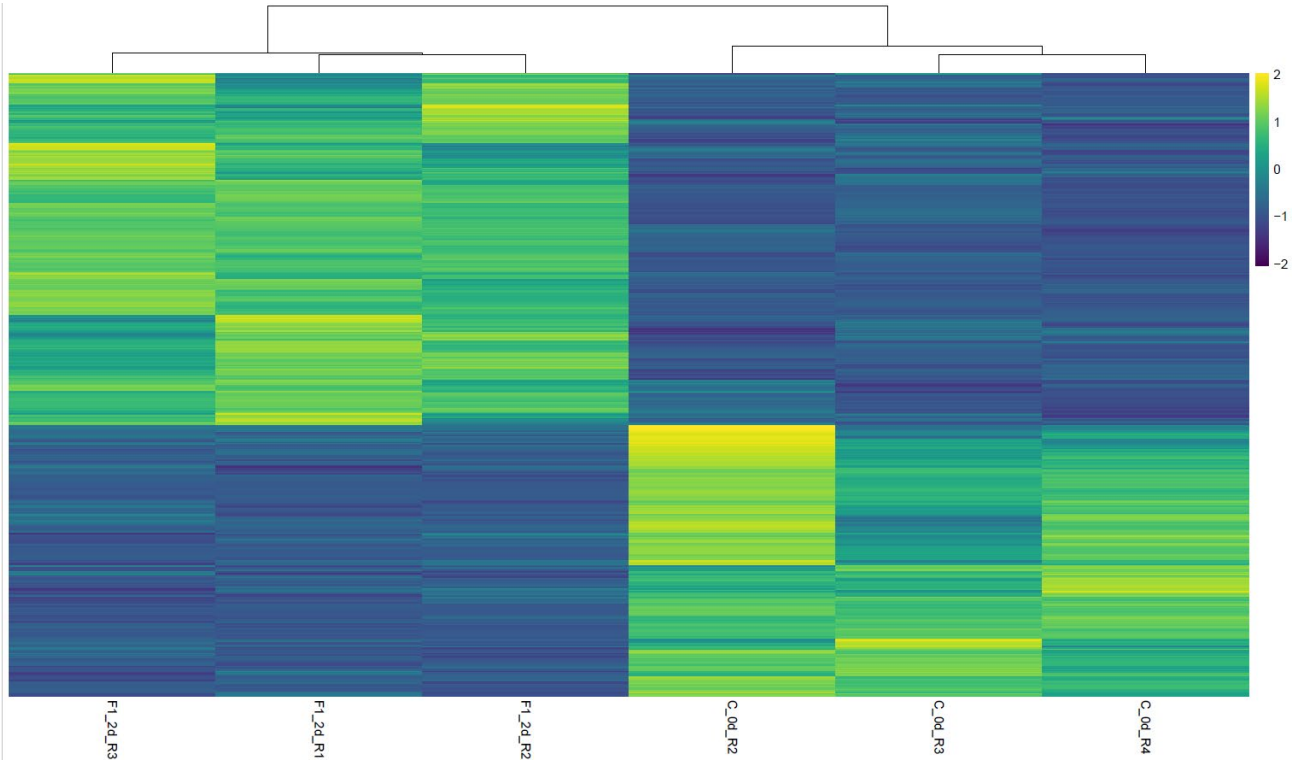


Figure S1. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 48 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.

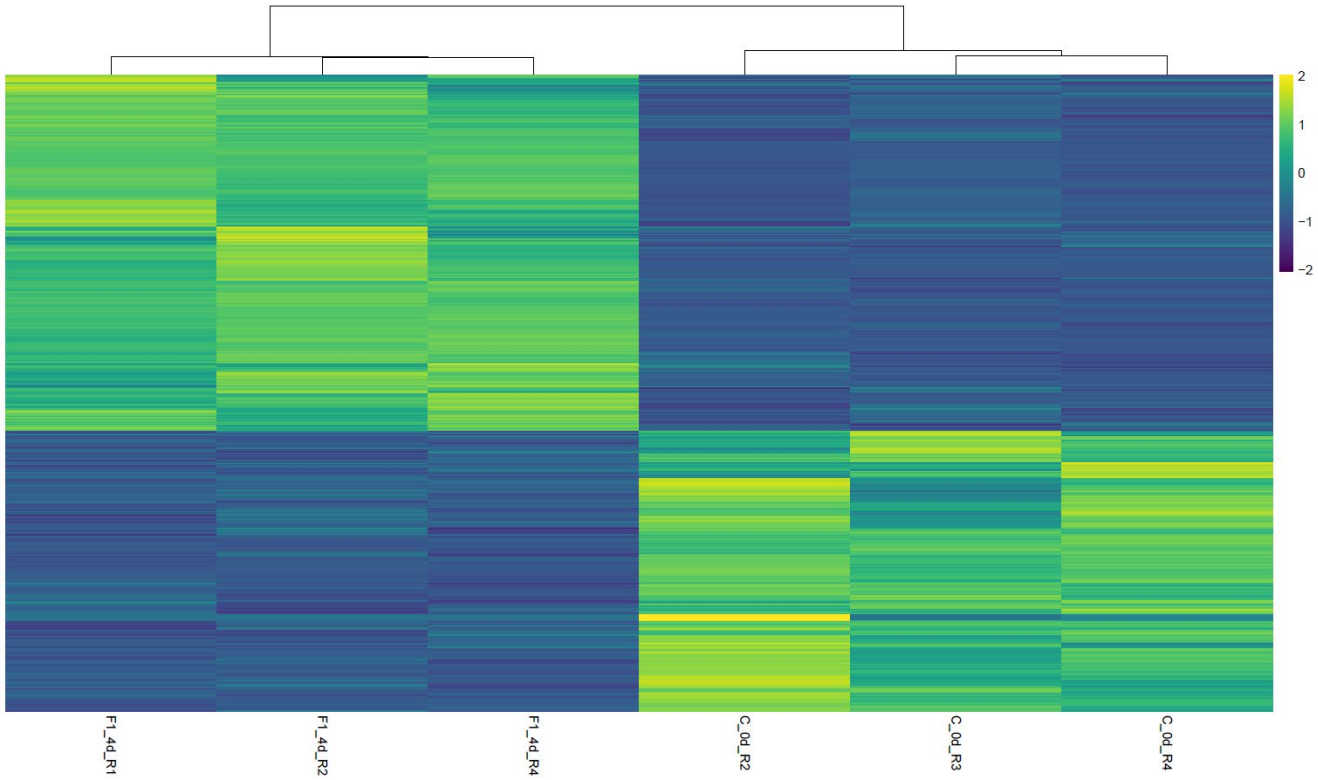


Figure S2. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 96 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.

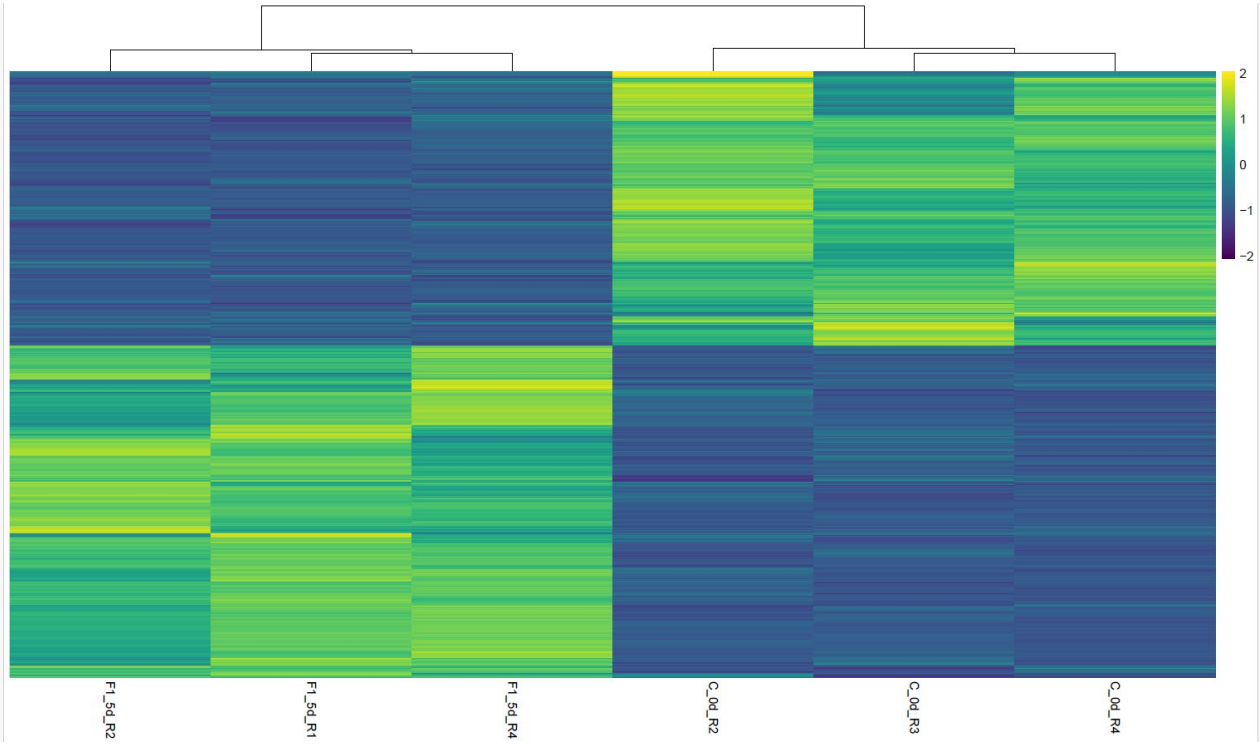


Figure S3. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 1 of *Lippia graveolens* for 120 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.

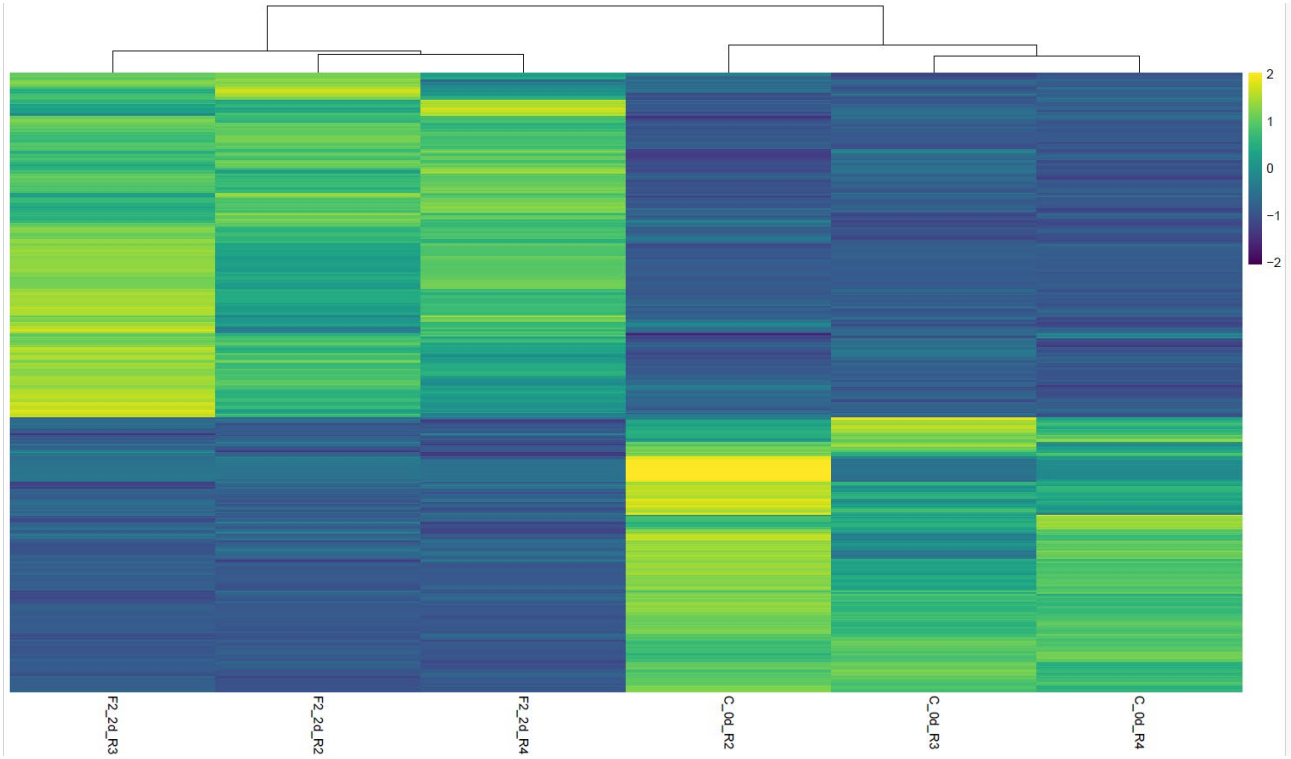


Figure S4. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 48 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.

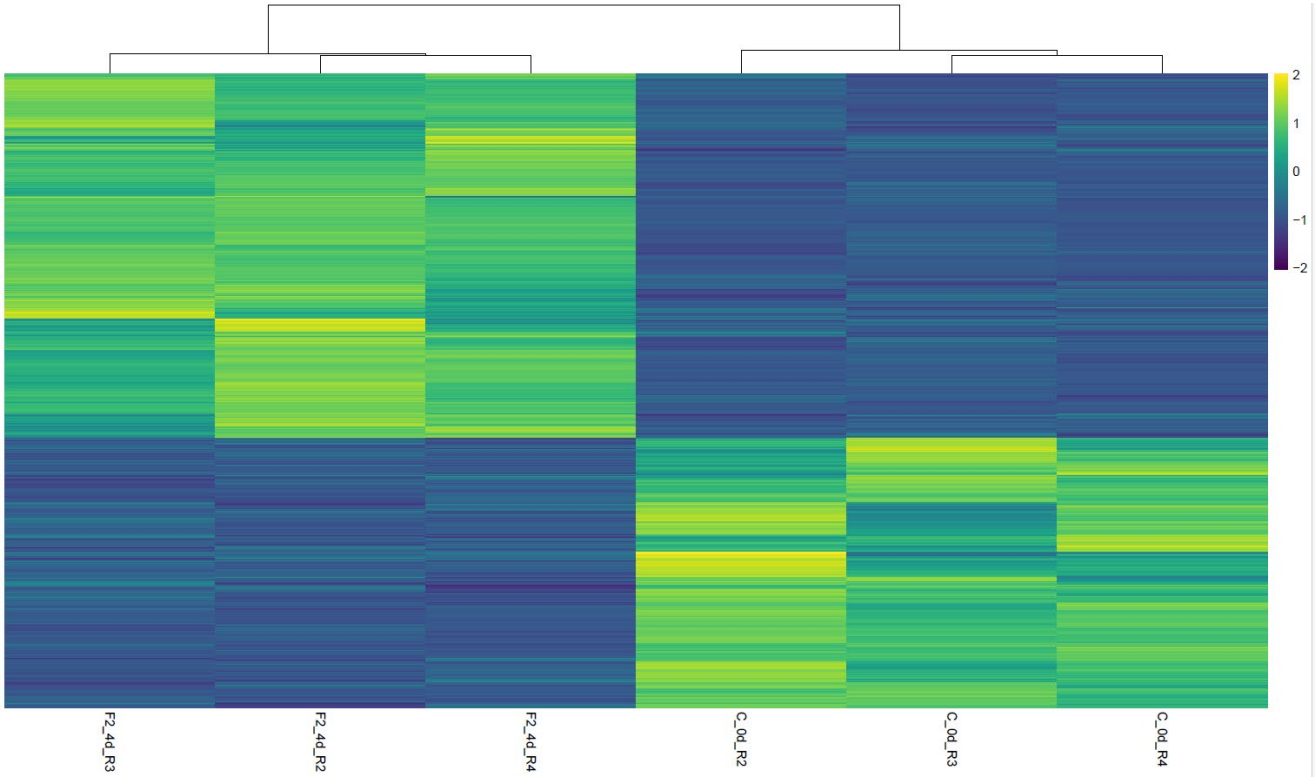


Figure S5. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 96 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.

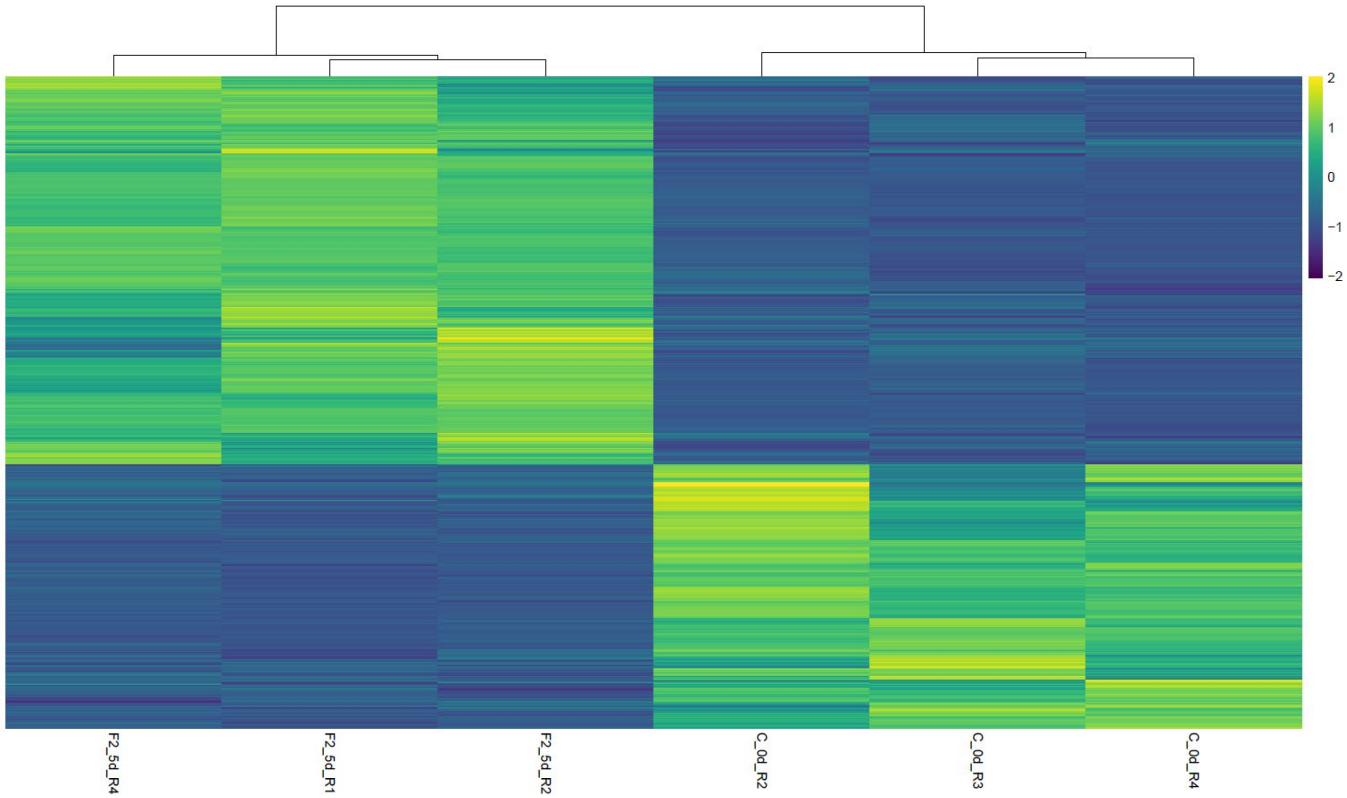


Figure S6. Heatmap of *Balamuthia mandrillaris* exposed to Fraction 2 of *Lippia graveolens* for 120 hours vs control samples. Columns represent individual replicates for each condition. The yellow-to-blue gradient reflects levels of gene expression, with upregulated genes shown in yellow and downregulated genes in blue, indicating the magnitude and direction of expression changes compared to the control group.