



Gustavo Santoyo Pizano



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Página Lab: <https://guslab.wordpress.com>

SNI II (2015-2018)

PRODEP (2021)

Responsable del Laboratorio de Diversidad Genómica

Líneas de investigación:

1. Desarrollo de bioinoculantes para la agricultura
2. Bacterias Promotoras del Crecimiento Vegetal (PGPRs)
3. Genómica y Metagenómica

Formación:

Licenciatura: Facultad de Biología, UMSNH

Maestría: No

Doctorado: Centro de Ciencias Genómicas, UNAM

Posdoctorado NIH-USA

Publicaciones más recientes:

1. Cristina M. Prieto-Barajas, Luis D. Alcaraz, Eduardo Valencia-Cantero, Gustavo Santoyo. **2018**. Life in hot spring microbial mats located in the Trans-Mexican Volcanic Belt: a 16S/18S rRNA gene and metagenomic analysis. *Geomicrobiology Journal*. <https://doi.org/10.1080/01490451.2018.1454555>
2. Ma. del Carmen Orozco-Mosqueda, Ma. del Carmen Rocha-Granados, Bernard R. Glick, **Gustavo Santoyo**. **2018**. Microbiome engineering to improve biocontrol and

- plant growth-promotion mechanisms. **Microbiological Research**.
<https://doi.org/10.1016/j.micres.2018.01.005>
3. Daniel Rojas-Solís, Elizabeth Zetter-Salmón, Miguel Contreras-Pérez, Ma del Carmen Rocha-Granados, Lourdes Macías-Rodríguez and **Gustavo Santoyo**. 2018. *Pseudomonas stutzeri* E25 and *Stenotrophomonas maltophilia* CR71 endophytes produce antifungal volatile organic compounds and exhibit additive plant growth-promoting effects. **Biocatalysis and Agricultural Biotechnology**. 13:46-52. <https://doi.org/10.1016/j.bcab.2017.11.007>
 4. Cristina M. Prieto-Barajas, Eduardo Valencia-Cantero and **Gustavo Santoyo**. 2018. Microbial mat ecosystems: structure types, functional diversity, and biotechnological application. **Electronic Journal of Biotechnology**. <https://doi.org/10.1016/j.ejbt.2017.11.001>
 5. Hernández-Salmerón, J.E., G. Moreno-Hagelsieb and **Gustavo Santoyo**. 2017. Genome comparison of *Pseudomonas fluorescens* UM270 with related fluorescent strains unveils genes involved in rhizosphere competence and colonization. **Journal of Genomics**. 5:91-98. <https://doi.org/10.7150/jgen.21588>.
 6. **Gustavo Santoyo**, Claudia Hernández-Pacheco, Julie Hernández-Salmerón, Rocío Hernández-León. 2017. The role of abiotic factors modulating the plant-microbe-soil interactions: toward sustainable agriculture. **Spanish Journal of Agricultural Research**. 15(1), e03R01, 10 pages. <https://doi.org/10.5424/sjar/2017151-9990>
 7. Hernández-Salmerón, J., Rocío Hernández-León, Ma. del Carmen Orozco-Mosqueda, Gabriel Moreno-Hagelsieb, Eduardo Valencia-Cantero and **Gustavo Santoyo**. 2016. Draft Genome Sequence of the Biocontrol and Plant Growth-Promoting Rhizobacterium *Pseudomonas fluorescens* UM270. **Standards in Genomic Sciences**. <https://doi.org/10.1186/s40793-015-0123-9>
 8. **Santoyo G.**, Moreno-Hagelsieb, G., Orozco-Mosqueda M. del C., Glick, B. R. 2016. Plant Growth-Promoting Bacterial Endophytes. **Microbiological Research**. 183:92-99. <https://doi.org/10.1016/j.micres.2015.11.008>.
 9. Alison Rattray, **Gustavo Santoyo**, Brenda Shafer and Jeffrey Strathern. 2015. Elevated mutation rate during meiosis in *Saccharomyces cerevisiae*. **PLoS Genetics**. 11(1): e1004910. <https://doi.org/10.1371/journal.pgen.1004910>.
 10. Rocío Hernández-León, Daniel Rojas-Solís, Miguel Contreras-Pérez, Ma. del Carmen Orozco-Mosqueda, Lourdes I. Macías-Rodríguez, Homero Reyes-de la Cruz, Eduardo Valencia-Cantero, **Gustavo Santoyo**. 2015. Characterization of the antifungal and plant growth-promoting effects of diffusible and volatile organic compounds produced by *Pseudomonas fluorescens* strains. **Biological Control**. 81: 83-92. <https://doi.org/10.1016/j.biocontrol.2014.11.011>

Premios

Miembro de la Academia Mexicana de Ciencias

Proyectos recientes con financiamiento externo

- i. Ciencia Básica CONACYT (Extensión 2018)
- ii. CIC-UMSNH (2018-2019)

Alumnos graduados recientemente