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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Licenciatura en Químico Farmacobiólogo</b>            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>SNI (Nivel): 1</b>                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Reconocimiento Perfil Deseable: Sí</b>                |
| <b>Cuerpo Académico:</b> Biotecnología, microbiología y productos naturales y alimenticios (UDG-CA-609).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          |
| <b>Línea de generación y aplicación del conocimiento:</b> Biotecnología de microorganismos, plantas y alimentos.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                          |
| <b>Proyectos actuales:</b> <ul style="list-style-type: none"> <li>• Aislamiento y caracterización de bacteriófagos y su evaluación como control biológico sobre células planctónicas y biopelículas formadas por cepas patógenas o deterioradoras presentes en la industria alimentaria.</li> <li>• Evaluación de sistemas de desinfección para el control de células planctónicas y biopelículas multiespecie presentes en la industria alimentaria.</li> <li>• Aislamiento y caracterización de bacterias ácido lácticas y evaluación de sus propiedades tecnológicas para su aplicación en la industria alimentaria.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          |
| <b>Publicaciones:</b> <ul style="list-style-type: none"> <li>• González-Torres B, Robles-García MG, Gutiérrez-Lomelí M, Padilla-Frausto JJ, Navarro-Villarruel CL, Del-Toro-Sánchez CL, Rodríguez-Félix F, Barrera-Rodríguez A, Reyna-Villela MZ, Avila-Novoa MG, Reynoso-Marín FJ. (2021). Combination of Sorbitol and Glycerol, as Plasticizers, and Oxidized Starch Improves the Physicochemical Characteristics of Films for Food Preservation. <i>Polymers</i>. 13(19):3356.</li> <li>• González-Gómez JP, González-Torres B, Guerrero-Medina PJ, López-Cuevas O, Chaidez C, Avila-Novoa MG, Gutiérrez-Lomelí M. (2021). Efficacy of novel bacteriophages against <i>Escherichia coli</i> biofilms on stainless steel. <i>Antibiotics</i>. 10(10):1150.</li> <li>• Avila-Novoa MG, Navarrete-Sahagún V, González-Gómez JP, Novoa-Valdovinos C, Guerrero-Medida PJ, García-Frutos R, Martínez-Chávez L, Martínez-González NE, Gutiérrez-Lomelí M. (2021). Conditions of In Vitro Biofilm Formation by Serogroups of <i>Listeria monocytogenes</i> Isolated from Hass Avocados Sold at Markets in Mexico. <i>Foods</i>. 10(9):2097.</li> <li>• Iñiguez-Moreno M, Gutiérrez-Lomelí M, Avila-Novoa MG. (2021). Remotion of mixed-species biofilms developed on food contact surfaces with a mixture of enzymes and chemical agents. <i>Antibiotics</i>. 10:1-8.</li> <li>• Avila-Novoa MG, Guerrero-Medina PJ, Navarrete-Sahagún V, Gómez-Olmos I, Velázquez-Suárez NY, De la Cruz-Color L, Gutiérrez-Lomelí M. (2021). Biofilm Formation by Multidrug-Resistant Serotypes of <i>Salmonella</i> Isolated from Fresh Products: Effects of Nutritional and Environmental Conditions. <i>Appl. Sci</i>. 11(8):3581.</li> <li>• Avila-Novoa MG, González-Gómez JP, Guerrero-Medina PJ, Cardona-López MA, Ibarra-Velázquez LM, Velázquez-Suárez NY, Morales-Del Río JA, Gutiérrez-Lomelí M. (2021). <i>Staphylococcus aureus</i> and methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) strains isolated from dairy products: relationship of <i>ica</i>-dependent/independent and components of biofilms produced <i>in vitro</i>. <i>Int. Dairy J</i>. 119:105066.</li> <li>• Solís-Velázquez OA, Gutiérrez-Lomelí M, Guerrero-Medina PJ, Rosa-García ML, Iñiguez-Moreno M, Avila-Novoa MG (2020). Nosocomial pathogen biofilms on biomaterials: different growth medium conditions and components of biofilms produced <i>in vitro</i>. <i>J Microbiol Immunol</i>. Article in press.</li> <li>• Avila-Novoa MG, Solís-Velázquez OA, Rangel-López DE, González-Gómez JP, Guerrero-Medina PJ, Gutiérrez-Lomelí M. (2019). Biofilm Formation and Detection of Fluoroquinolone- and Carbapenem-Resistant Genes in Multidrug-Resistant <i>Acinetobacter baumannii</i>. <i>Can J Infect Dis Med</i>. 2019:3454907.</li> <li>• Iñiguez-Moreno M, Gutiérrez-Lomelí M, Avila-Novoa MG (2019). Kinetics of biofilm formation by pathogenic and spoilage microorganisms under conditions that mimic the poultry, meat, and egg processing industries. <i>Int J Food Microbiol</i>. 303:32-41.</li> <li>• Iñiguez-Moreno M, Avila-Novoa MG, Gutiérrez-Lomelí M (2018). Resistance of pathogenic and spoilage microorganisms to disinfectants in the presence of organic matter and their residual effect on stainless steel and polypropylene. <i>J Glob Antimicrob Resist</i>. 14:197-201.</li> </ul> |                                                          |

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- Iñiguez-Moreno M, Gutierrez-Lomelí M, Guerrero-Medina PJ, Avila-Novoa MG (2018). Biofilm formation by *Staphylococcus aureus* and *Salmonella* spp. under mono and dual-species conditions and their sensitivity to cetrimonium bromide, peracetic acid and sodium hypochlorite. Braz J Microbiol. 49(2):310-319.

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