

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

BCDB

Craige, Branch

Salazar, G, B Craige, BH Wainer, J Guo, P De Camilli and V Faundez. 2005. Phosphatidylinositol-4 kinase type II alpha is a component of adaptor protein-3-derived vesicles. *Molecular Biology of the Cell* 16(8):3692-3704.

Craige, Branch

Salazar, G, B Craige, R Love, D Kalman and V Faundez. 2005. Vglut1 and ZnT3 co-targeting mechanisms regulate vesicular zinc stores in PC12 cells. *Journal of Cell Science* 118(Pt 9): 1911-1921.

Dalton, William

Nandan, MO, S Chanchevalap, WB Dalton and VW Yang. 2005. Kruppel-like factor 5 promotes mitosis by activating the cyclin B1/Cdc2 complex during oncogenic Ras-mediated transformation. *FEBS Letters* 579(21): 4757-4762.

Dalton, William

Yoon, HS, AM Ghaleb, MO Nandan, IM Hisamuddin, WB Dalton and VW Yang. 2005. Kruppel-like factor 4 prevents centrosome amplification following gamma-irradiation-induced DNA damage. *Oncogene* 24(25): 4017-4025.

Dalton, William

Ghaleb, AM, MO Nandan, S Chanchevalap, WB Dalton, IM Hisamuddin and VW Yang. 2005. Kruppel-like factors 4 and 5: the yin and yang regulators of cellular proliferation. *Cell Research* 15(2): 92-96.

Geddie, Melissa

Geddie, ML, TL O'Loughlin, KK Woods and I Matsumura. 2005. Rational design of p53, an intrinsically unstructured protein, for the fabrication of novel molecular sensors. *Journal of Biological Chemistry* 280(42): 35641-35646.

O'Loughlin, Taryn

Geddie, ML, TL O'Loughlin, KK Woods and I Matsumura. 2005. Rational design of p53, an intrinsically unstructured protein, for the fabrication of novel molecular sensors. *Journal of Biological Chemistry* 280(42): 35641-35646.

Ritsick, Darren

Kawahara, T, D Ritsick, G Cheng and JD Lambeth. 2005. Point mutations in the proline-rich region of p22phox are dominant inhibitors of Nox1- and Nox2-dependent reactive oxygen generation. *Journal of Biological Chemistry* 280(36): 31859-31869.

Ritsick, Darren

Ritsick, D and JD Lambeth. 2005. Spring brings breezes, wheezes, and pollen oxidases. *J Clin Invest* 115(8): 2067-2069.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Ventii, Karen

Wilkinson, KD, KH Ventii, KL Friedrich, JE Mullally. 2005. The ubiquitin signal: assembly, recognition and termination. Symposium on ubiquitin and signaling. *EMBO Reports* 6(9): 815-820.

GMB

Cornett, Jonathan

Cornett, J, F Cao, CE Wang, CA Ross, GP Bates, SH Li and XJ Li. 2005. Polyglutamine expansion of huntingtin impairs its nuclear export. *Nature Genetics* 37(2): 198-204.

Cornett, Jonathan

Cornett, J, M Friedman, S-H Li and X-J Li. 2005. Transcriptional dysregulation: a therapeutic target for polyglutamine diseases. *Current Medicinal Chemistry - Central Nervous System Agents* 5(2): 119-127.

Eaton, Jana

O'Rourke, TW, NA Doudican, H Zhang, JS Eaton, PW Doetsch and GS Shadel. 2005. Differential involvement of the related DNA helicases Pif1p and Rrm3p in mtDNA point mutagenesis and stability. *Gene* 354: 86-92.

Eaton, Jana

Taylor, SD, H Zhang, JS Eaton, MS Rodeheffer, MA Lebedeva, TW O'Rourke, W Siede and GS Shadel. 2005. The conserved Mec1/Rad53 nuclear checkpoint pathway regulates mitochondrial DNA copy number in *Saccharomyces cerevisiae*. *Molecular Biology of the Cell* 16(6): 3010-3018.

Khwaja, Fatima

Bunin, A, FW Khwaja and GJ Kersh. 2005. Regulation of Bim by TCR signals in CD4/CD8 double-positive thymocytes. *Journal of Immunology* 175(3): 1532-1539.

Khwaja, Fatima

Kaur, B, FW Khwaja, EA Severson, SL Matheny, DJ Brat and EG Van Meir. 2005. Hypoxia and the hypoxia-inducible-factor pathway in glioma growth and angiogenesis. *Neuro-Oncology* 7(2): 134-153.

Khwaja, Fatima

Tan, C, RG de Noronha, AJ Roecker, B Pyrzynska, F Khwaja, Z Zhang, H Zhang, Q Teng, AC Nicholson, P Giannakakou, W Zhou, JJ Olson, MM Pereira, KC Nicolaou and EG Van Meir. 2005. Identification of a novel small-molecule inhibitor of the hypoxia-inducible factor 1 pathway. *Cancer Research* 65(2): 605-612.

Lucas, Mary

Wasilenko, J, ME Lucas, JB Thoden, HM Holden and JL Fridovich-Keil. 2005. Functional characterization of the K257R and G319E-hGALE alleles found in patients with ostensibly peripheral epimerase deficiency galactosemia. *Molecular Genetics & Metabolism* 84(1): 32-38.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Maris, Melinda

Mackereth, MD, SJ Kwak, A Fritz and BB Riley. 2005. Zebrafish pax8 is required for otic placode induction and plays a redundant role with Pax2 genes in the maintenance of the otic placode. *Development* 132(2): 371-382.

Small, Tracey

Ferrara, TM, DB Flaherty and GM Benian. 2005. Titin/connectin related proteins in *C. elegans*: a review and new findings. *Journal of Muscle Research and Cell Motility* 26(6-8): 435-447.

Wasilenko, Jamie

Wasilenko, J, ME Lucas, JB Thoden, HM Holden and JL Fridovich-Keil. 2005. Functional characterization of the K257R and G319E-hGALE alleles found in patients with ostensibly peripheral epimerase deficiency galactosemia. *Molecular Genetics & Metabolism* 84(1): 32-38.

IMP

Coley, Shana

Becker, TC, SM Coley, EJ Wherry and R Ahmed. 2005. Bone marrow is a preferred site for homeostatic proliferation of memory CD8 T cells. *Journal of Immunology* 174(3): 1269-1273.

Dunham, Richard

Paiardini, M, B Cervasi, H Albrecht, A Muthukumar, R Dunham, S Gordon, H Radziewicz, G Piedimonte, M Magnani, M Montroni, SM Kaech, A Weintrob, JD Altman, DL Sodora, MB Feinberg and G Silvestri. 2005. Loss of CD127 expression defines an expansion of effector CD8+ T cells in HIV-infected individuals. *Journal of Immunology* 174(5): 2900-2909.

Dunham, Richard

Moanna, A, R Dunham, M Paiardini and G Silvestri. 2005. CD4+ T-cell depletion in HIV infection: killed by friendly fire? *Current HIV/AIDS Reports* 2(1): 16-23.

Gordon, Shari

Paiardini, M, B Cervasi, H Albrecht, A Muthukumar, R Dunham, S Gordon, H Radziewicz, G Piedimonte, M Magnani, M Montroni, SM Kaech, A Weintrob, JD Altman, DL Sodora, MB Feinberg and G Silvestri. 2005. Loss of CD127 expression defines an expansion of effector CD8+ T cells in HIV-infected individuals. *Journal of Immunology* 174(5): 2900-2909.

Gordon, Shari

Gordon, S, I Pandrea, R Dunham, C Apetrei and G Silvestri. 2005. The call of the wild: what can be learned from studies of SIV infection of natural hosts. *HIV Sequence Compendium*, 2005.

Gray, Kathleen

Moser, JM, JW Upton, KS Gray and SH Speck. 2005. Ex vivo stimulation of B cells latently infected with gammaherpesvirus 68 triggers reactivation from latency. *Journal of Virology* 79(8): 5227-5231.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Kemball, Christopher

Kemball, CC, ED Han Lee, V Vezys, TC Pearson, CP Larsen and AE Lukacher. 2005. Late Priming and variability of epitope-specific CD8+ T cell responses during a persistent virus infection. *Journal of Immunology* 174(12): 7950-7960.

Szretter, Kristy

Maines, TR, XH Lu, SM Erb, L Edwards, J Guarner, PW Greer, DC Nguyen, KJ Szretter, LM Chen, P Thawatsupha, M Chittaganpitch, S Waicharoen, DT Nguyen, T Nguyen, HH Nguyen, JH Kim, LT Hoang, C Kang, LS Phuong, W Lim, S Zaki, RO Donis, NJ Cox, JM Katz and TM Tumpey. 2005. Avian influenza (H5N1) viruses isolated from humans in Asia during 2004 exhibit increased virulence in mammals. *Journal of Virology* 79(18): 11788-11800.

Taylor, Rebekah

Taylor, RT and IR Williams. 2005. Lymphoid organogenesis in the intestine. *Immunologic Research* 33(2): 167-181.

MMG

Maus, Courtney

Maus, CE, BB Plikaytis and TM Shinnick. 2005. Mutation of tlyA confers capreomycin resistance in *Mycobacterium tuberculosis*. *Antimicrobial Agents & Chemotherapy* 49(2): 571-577.

Maus, Courtney

Maus, CE, BB Plikaytis and TM Shinnick. 2005. Molecular analysis of the cross-resistance to capreomycin, kanamycin, amikacin, and viomycin in *Mycobacterium tuberculosis*. *Antimicrobial Agents & Chemotherapy* 49(8): 3192-3197.

McNulty, Shannon

Reeves, PM, B Bommarius, S Lebeis, S McNulty, J Christensen, A Swimm, A Chahroudi, R Chavan, MB Feinberg, D Veach, W Bornmann, M Sherman and D Kalman. 2005. Disabling poxvirus pathogenesis by inhibition of Abl-family tyrosine kinases. *Nature Medicine* 11(7): 731-739.

Rasmussen, Andrew

Rasmussen, AW, HL Alexander, D Perkins-Balding, WM Shafer and I Stojiljkovic. 2005. Resistance of *Neisseria meningitidis* to the toxic effects of heme iron and other hydrophobic agents requires expression of ght. *Journal of Bacteriology* 187(15): 5214-5223.

Reeves, Patrick

Reeves, PM, B Bommarius, S Lebeis, S McNulty, J Christensen, A Swimm, A Chahroudi, R Chavan, MB Feinberg, D Veach, W Bornmann, M Sherman and D Kalman. 2005. Disabling poxvirus pathogenesis by inhibition of Abl-family tyrosine kinases. *Nature Medicine* 11(7): 731-739.

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MSP

Hubbard, Katherine

Peavy, RD, KB Hubbard, A Lau, RB Fields, K Xu, CJ Lee, TT Lee, K Gernert, TJ Murphy and JR Hepler. 2005. Differential effects of Gq alpha, G14 alpha, and G15 alpha on vascular smooth muscle cell survival and gene expression profiles. *Molecular Pharmacology* 67(6): 2102-2114.

Lau, Anthony

Peavy, RD, KB Hubbard, A Lau, RB Fields, K Xu, CJ Lee, TT Lee, K Gernert, TJ Murphy and JR Hepler. 2005. Differential effects of Gq alpha, G14 alpha, and G15 alpha on vascular smooth muscle cell survival and gene expression profiles. *Molecular Pharmacology* 67(6): 2102-2114.

McCoy, Kelly

Zhou, H, K Yu, KL McCoy and A Lee. 2005. Molecular mechanism for divergent regulation of Cav1.2 Ca²⁺ channels by calmodulin and Ca²⁺-binding protein-1. *Journal of Biological Chemistry* 280(33): 29612-29619.

O'Connor, Roderick

Mitchell, PO, T Mills, RS O'Connor, T Graubert, E Dzierzak and GK Pavlath. 2005. Sca-1 negatively regulates proliferation and differentiation of muscle cells. *Developmental Biology* 283(1): 240-252.

Rogge, George

Hunter, RG, A Vicentic, G Rogge and MJ Kuhar. 2005. The effects of cocaine on CART expression in the rat nucleus accumbens: a possible role for corticosterone. *European Journal of Pharmacology* 517(1-2): 45-50.

NHS

Bish, Connie

Bish, CL, HM Blanck, MK Serdula, M Marcus, HW Kohl III and LK Khan. 2005. Diet and physical activity behaviors among Americans trying to lose weight: 2000 behavioral risk factor surveillance system. *Obesity Research* 13(3): 596-607.

Corvalan, Camila

Corvalan, C, H Amigo, P Bustos and RJ Rona. 2005. Socioeconomic risk factors for asthma in Chilean young adults. *American Journal of Public Health* 95(8): 1375-1381.

Craige, Siobhan

Jiang, S, SE Moriarty-Craige, M Orr, J Cai, P Sternberg Jr and DP Jones. 2005. Oxidant-induced apoptosis in human retinal pigment epithelial cells: dependence on extracellular redox state. *Investigative Ophthalmology & Visual Science* 46(3): 1054-1061.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Craige, Siobhan

Moriarty-Craige, SE, J Adkison, M Lynn, G Gensler, S Bressler, DP Jones and P Sternberg, Jr. 2005. Antioxidant supplements prevent oxidation of cysteine/cystine redox in patients with age-related macular degeneration. *American Journal of Ophthalmology* 140(6): 1020-1026.

Gregory, Cria

Stein, AD, CO Gregory, J Hoddinott, R Martorell, U Ramakrishnan and M Ramirez-Zea. 2005. Physical activity level, dietary habits, and alcohol and tobacco use among a cohort of young Guatemalan adults. *Food & Nutrition Bulletin* 26(2 Suppl 1): S78-S87.

Hoch, Nyssa

Laude, K, H Cai, B Fink, N Hoch, DS Weber, L McCann, G Kojda, T Fukai, HH Schmidt, S Dikalov, S Ramasamy, G Gamez, KK Griendling, and DG Harrison. 2005. Hemodynamic and biochemical adaptations to vascular smooth muscle overexpression of p22phox in mice. *American Journal of Physiology - Heart & Circulatory Physiology* 288(1): H7-17.

Hoch, Nyssa

Dudley, SC Jr, NE Hoch, LA McCann, C Honeycutt, L Diamandopoulos, T Fukai, DG Harrison, SI Dikalov and J Langberg. 2005. Atrial fibrillation increases production of superoxide by the left atrium and left atrial appendage: role of the NADPH and xanthine oxidases. *Circulation* 112(9): 1266-1273.

Luo, Menghua

Ziegler, TR, LG Ogden, KD Singleton, M Luo, C Fernandez-Estivariz, DP Griffith, JR Galloway and PE Wischmeyer. 2005. Parenteral glutamine increases serum heat shock protein 70 in critically ill patients. *Intensive Care Medicine* 31(8): 1079-1086.

Schulz, Jenny

Schulz, JM, KL Ross, K Malmstrom, M Krieger and JL Fridovich-Keil. 2005. Mediators of galactose sensitivity in UDP-galactose 4'-epimerase-impaired mammalian cells. *Journal of Biological Chemistry* 280(14): 13493-13502.

Thompson, Danielle

Thompson, DT, HM Blanck, JE Fulton and M Huhman. 2005. Child and parental characteristics associated with youth television viewing in a national sample of girls and boys. *Medicine & Science in Sports & Exercise* 37(Suppl 5): S63.

Tian, Junqiang

Evans, ME, J Tian, LH Gu, DP Jones and TR Ziegler. 2005. Dietary supplementation with orotate and uracil increases adaptive growth of jejunal mucosa after massive small bowel resection in rats. *JPEN: Journal of Parenteral & Enteral Nutrition* 29(5): 315-320.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

NS

Bordelon, Jill

Bordelon, JR, Y Smith, AC Nairn, RJ Colbran, P Greengard and EC Muly. 2005. Differential localization of protein phosphatase-1alpha, beta and gamma1 isoforms in primate prefrontal cortex. *Cerebral Cortex* 15(12): 1928-1937.

Chhatwal, Jasmeer

Chhatwal, JP, M Davis, KA Maguschak and KJ Ressler. 2005. Enhancing cannabinoid neurotransmission augments the extinction of conditioned fear. *Neuropsychopharmacology* 30(3): 516-524.

Chhatwal, Jasmeer

Chhatwal, JP, KM Myers, KJ Ressler and M Davis. 2005. Regulation of gephyrin and GABA_A receptor binding within the amygdala after fear acquisition and extinction. *Journal of Neuroscience* 25(2): 502-506.

Chien, Li-Ting

Hartzell, C, Z Qu, I Putzier, L Artinian, LT Chien and Y Cui. 2005. Looking chloride channels straight in the eye: bestrophins, lipofuscinosis, and retinal degeneration. *Physiology* 20: 292-302.

Cole, Charlene

Schank, JR, R Ventura, S Puglisi-Allegra, A Alcaro, CD Cole, LC Liles, P Seeman and D Weinshenker. 2005. Dopamine beta-hydroxylase knockout mice have alterations in dopamine signaling and are hypersensitive to cocaine. *Neuropsychopharmacology* December 14: 1-10.

Donaldson, Zoe

Bourdelet-Parks, B, G Anderson, Z Donaldson, J Weiss, R Bonsall, M Emery, L Liles and D Weinshenker. 2005. Effects of dopamine beta-hydroxylase genotype and disulfiram inhibition on catecholamine synthesis in mice. *Psychopharmacology* 183(1): 72-80.

Dougherty, Kimberly

Dougherty, KJ, BA Bannatyne, E Jankowska, P Krutki and DJ Maxwell. 2005. Membrane receptors involved in modulation of responses of spinal dorsal horn interneurons evoked by feline group II muscle afferents. *Journal of Neuroscience* 25(3): 584-593.

Dougherty, Kimberly

Dougherty, KJ, MA Sawchuk and S Hochman. 2005. Properties of mouse spinal lamina I GABAergic interneurons. *Journal of Neurophysiology* 94(5): 3221-3227.

Felger, Jennifer

Mook, D, J Felger, F Graves, K Wallen and ME Wilson. 2005. Tamoxifen fails to affect central serotonergic tone but increases indices of anxiety in female rhesus macaques. *Psychoneuroendocrinology* 30(3): 273-283.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Fischer, Lindsey

Fischer, LR, DG Culver, AA Davis, P Tennant, M Wang, M Coleman, S Asress, R Adalbert, GM Alexander and JD Glass. 2005. The WldS gene modestly prolongs survival in the SOD1G93A fALS mouse. *Neurobiology of Disease* 19(1-2): 293-300.

Goldshmidt, Anna

Nicole, O, A Goldshmidt, CE Hamill, SD Sorensen, A Sastre, P Lyuboslavsky, JR Hepler, RJ McKeon and SF Traynelis. 2005. Activation of protease-activated receptor-1 triggers astrogliosis after brain injury. *Journal of Neuroscience* 25(17): 4319-4329.

Goldshmidt, Anna

Hamill, CE, A Goldshmidt, O Nicole, RJ McKeon, DJ Brat and SF Traynelis. 2005. Special lecture: glial reactivity after damage: implications for scar formation and neuronal recovery. *Clinical Neurosurgery* 52: 29-44.

Hamill, Cecily

Nicole, O, A Goldshmidt, CE Hamill, SD Sorensen, A Sastre, P Lyuboslavsky, JR Hepler, RJ McKeon and SF Traynelis. 2005. Activation of protease-activated receptor-1 triggers astrogliosis after brain injury. *Journal of Neuroscience* 25(17): 4319-4329.

Hamill, Cecily

Hamill, CE, A Goldshmidt, O Nicole, RJ McKeon, DJ Brat and SF Traynelis. 2005. Special lecture: glial reactivity after damage: implications for scar formation and neuronal recovery. *Clinical Neurosurgery* 52: 29-44.

Kuwajima, Masaaki

Paquet, M, M Kuwajima, CC Yun, Y Smith and RA Hall. 2005. Astrocytic and neuronal localization of the scaffold protein NA⁺/H⁺ exchanger regulatory factor 2 (NHERF-2) in mouse brain. *Journal of Comparative Neurology* 494(5): 752-762.

Maguschak, Kimberly

Chhatwal, JP, M Davis, KA Maguschak and KJ Ressler. 2005. Enhancing cannabinoid neurotransmission augments the extinction of conditioned fear. *Neuropsychopharmacology* 30(3): 516-524.

Nakanishi, Stan

Wang, X, Y Li, KL Engisch, ST Nakanishi, SE Dodson, GW Miller, TC Cope, MJ Pinter and MM Rich. 2005. Activity-dependent presynaptic regulation of quantal size at the mammalian neuromuscular junction in vivo. *Journal of Neuroscience* 25(2): 343-351.

Nakanishi, Stan

Nakanishi, ST, TC Cope, MM Rich, DI Carrasco and MJ Pinter. 2005. Regulation of motoneuron excitability via motor endplate acetylcholine receptor activation. *Journal of Neuroscience* 25(9): 2226-2232.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Poisik, Olga

Poisik, O, DV Raju, M Verreault, A Rodriguez, OA Abeniya, PJ Conn and Y Smith. 2005. Metabotropic glutamate receptor 2 modulates excitatory synaptic transmission in the rat globus pallidus. *Neuropharmacology* 49(Suppl 1): 57-69.

Schank, Jesse

Schank, JR, LC Liles and D Weinshenker. 2005. Reduced anticonvulsant efficacy of valproic acid in dopamine beta-hydroxylase knockout mice. *Epilepsy Research* 65(1-2): 23-31.

Schank, Jesse

Schank, JR, R Ventura, S Puglisi-Allegra, A Alcaro, CD Cole, LC Lilies, P Seeman and D Weinshenker. 2005. Dopamine beta-hydroxylase knockout mice have alteration in dopamine signaling and are hypersensitive to cocaine. *Neuropsychopharmacology* December 14: 1-10.

Silverman, Marni

Silverman, MN, BD Pearce, CA Biron and AH Miller. 2005. Immune modulation of the hypothalamic-pituitary-adrenal (HPA) axis during viral infection. *Viral Immunology* 18(1):41-78.

Wilhelm, Jennifer

Thiagarajan, R, J Wilhelm, T Tewolde, Y Li, MM Rich and KL Engisch. 2005. Enhancement of asynchronous and train-evoked exocytosis in bovine adrenal chromaffin cells infected with a replication deficient adenovirus. *Journal of Neurophysiology* 94(5): 3278-3291.

PBEE

Genereux, Diane

Genereux, DP, BE Miner, CT Bergstrom and CD Laird. 2005. A population-epigenetic model to infer site-specific methylation rates from double-stranded DNA methylation patterns. *Proceedings for the National Academy of Sciences of the United States of American* 102(16): 5802-5807.

Harper, Kristin

Armelagos, GJ, KN Harper and PS Ocampo. 2005. On the trail of the twisted treponeme: searching for the origins of syphilis. *Evolutionary Anthropology* 14(6): 240-242.

Harper, Kristin

Armelagos, GJ and KN Harper. 2005. Genomics at the origins of agriculture: part I. *Evolutionary Anthropology* 14(2): 68-77.

Harper, Kristin

Armelagos, GJ and KN Harper. 2005. Genomics at the origins of agriculture: part II. *Evolutionary Anthropology* 14(3): 109-121.

GDBBS Student Peer-Reviewed Publications in Calendar Year 2005

Levy, Michael

Levy, MZ, EA Medeiros, N Shang, MC Soares, AS Homenko, RM Almeida, DO Garrett, VR Roth, WR Jarvis, CD Wells, N Binkin and KF Laserson. 2005. TST reversion in a BCG-revaccinated population of nursing and medical students, Sao Paulo, Brazil 1997-2000. *International Journal of Tuberculosis & Lung Disease* 9(7): 771-776.

Mixson, Tonya

Schulze, TL, RA Jordan, CJ Schulze, T Mixson and M Papero. 2005. Relative encounter frequencies and prevalence of selected *Borrelia*, *Ehrlichia*, and *Anaplasma* infections in *Amblyomma americanum* and *Ixodes scapularis* (Acari: Ixodidae) ticks from central New Jersey. *Journal of Medical Entomology* 42(3): 450-456.

Zappala, Renata

Wiuiff, C, RM Zappala, RR Regoes, KN Garner, F Baquero and BR Levin. 2005. Phenotypic tolerance: antibiotic enrichment of noninherited resistance in bacterial populations. *Antimicrobial Agents & Chemotherapy* 49(4): 1483-1494.