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Engineering & Scientific Consulting

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Professional Profile

Dr. Yanes is a Human Factors Scientist with expertise in cognitive neuroscience, perceptual decision making, and tactile sensation/perception, including textures, temperatures, pressure, and pain. Additionally, he has extensively examined effects of commonly used/misused substances (i.e., tobacco, alcohol, and cannabis) on human behavior. He has led human-subjects research across diverse domains including cognitive and behavioral sciences, substance use/abuse and addiction, and functional neuroimaging, and he has supported work on stress, sleep deprivation, and risk-taking.

Across academic, clinical, and industry contexts, Dr. Yanes has developed proficiencies in systematic review and quantitative meta-analysis, experimental design, modeling and statistics, and advanced data visualization and analysis techniques, including sentiment analysis and natural language processing. He works with several statistical/computing software programs including R, Python, and MATLAB. At Exponent, Dr. Yanes actively contributes to programmatic research in the areas of transportation and driver behavior and performance. He has leveraged his training and experience to examine human factors issues in the design, implementation, and limitations of advanced driver assistance systems (ADAS), including driver inattention/distraction, driver monitoring, system trust/acceptance, human-computer interaction, and appropriate use and/or abuse of in-vehicle systems.

Dr. Yanes' research has been funded by the National Center on Compulsive Behavior, the National Center for Complementary and Integrative Health, and the National Institute on Drug Abuse. His efforts have been recognized by national and international groups, including the Social and Affective Neuroscience Society, the Organization for Human Brain Mapping, and the Society for the Advancement of Chicanos and Native Americans in Science. In 2020, the National Institute of Mental Health named Dr. Yanes an Outstanding Scholar in Neuroscience.

Academic Credentials & Professional Honors

Ph.D., Cognitive and Behavioral Sciences, Auburn University (AU), 2020

B.A., Psychology, Florida International University, 2010

Recipient, Ruth L. Kirschstein National Research Service Award (NRSA) Predoctoral Fellowship to Promote Diversity in Health-Related Research

Prior Experience

Post-Doctoral Research Fellow, National Institutes of Health, 2020-2022

Publications

Yanes, J. A., & Akintola, T. (2022). Projections to PAG-RVM Axis May Promote Hypoalgesia and Nocebo Hyperalgesia. *The Journal of Neuroscience*, 42 (16) 3302-3304

Pintos Lobo, R., Morris, S. S. J., Yanes, J. A., Tenenbaum, R., Feeney, K. E., Musser, E. D. (2021). The role of temperament in alcohol use among college students. *Addictive Behaviors Reports*, 14, 100366

Soliman, N., Vollert, J., Sena, C., Liao, J., Macleod, M., ... Yanes, J. A., ... Rice, A. S. C. (2021). A Systematic Review and Meta-analysis of cannabis-based medicines, cannabinoids and endocannabinoid system modulators tested for antinociceptive effects in animal models of injury-related or pathological persistent pain. *Pain*, 162(1): S26–S44

Robinson, J. L., Yanes, J. A., Reid, M. A., Murphy, J. E., Busler, J. N., Mumford, P. W., Young, K. C., Pietrzkowski, Z. J., Hunter, J. M., & Beck, D. T. (2021). Neurophysiological effects of whole coffee cherry extract in older adults with subjective cognitive impairment: A randomized, double-blind, placebo-controlled, cross-over pilot study. *Antioxidants*, 10(2). 144

Bielczyk, N. Z., Ando, A., Badhwar, A., Caldinelli, C., Gao, M., Haugg, A., ... , Yanes, J. A., ... & Makary, M. M. (2020). Effective self-management for early career researchers in the natural and life sciences. *Neuron*, 106(2), 212-217

Yanes, J. A. (2019). Toward a multimodal framework of brainstem pain-modulation circuits in migraine. *The Journal of Neuroscience*, 39(31), 6035

Feiss, R., Dolinger, S. B., Merritt, M., Reiche, E., Martin, K., Yanes, J. A., ... & Pangelinan, M. (2019). A systematic review and meta-analysis of school-based stress, anxiety, and depression prevention programs for adolescents. *Journal of Youth and Adolescence*, 48(9), 1668-1685

Busler, J. N., Yanes, J. A., Bird, R. T., Reid, M. A., & Robinson, J. L. (2019). Differential functional patterns of the human posterior cingulate cortex during activation and deactivation: a meta-analytic connectivity model. *Experimental Brain Research*, 237(9), 2367-2385

Yanes, J. A., McKinnell, Z. E., Reid, M. A., Busler, J. N., Michel, J. S., Pangelinan, M. M., ... & Robinson, J. L. (2019). Effects of cannabinoid administration for pain: A meta-analysis and meta regression. *Experimental and Clinical Psychopharmacology*, 27(4), 370

Murphy, J. E., Yanes, J. A., Kirby, L. A., Reid, M. A., & Robinson, J. L. (2020). Left, right, or bilateral amygdala activation? How effects of smoothing and motion correction on ultra-high field, high-resolution functional magnetic resonance imaging (fMRI) data alter inferences. *Neuroscience Research*, 150, 51-59

Hinnant, J. B., McConnell, L. M., Yanes, J. A., McCormick, M. J., Murphy, J. E., Erath, S. A., & Robinson, J. L. (2019). Rewarding safe choices in peer contexts: Adolescent brain activity during decision making. *Biological Psychology*, 142, 45

Riedel, M. C., Yanes, J. A., Ray, K. L., Eickhoff, S. B., Fox, P. T., Sutherland, M. T., & Laird, A. R. (2018). Dissociable meta-analytic brain networks contribute to coordinated emotional processing. *Human Brain Mapping*, 39(6), 2514-2531

Yanes, J. A., Riedel, M. C., Ray, K. L., Kirkland, A. E., Bird, R. T., Boevig, E. R., ... & Sutherland, M. T. (2018). Neuroimaging meta-analysis of cannabis use studies reveals convergent functional alterations in brain regions supporting cognitive control and reward processing. *Journal of Psychopharmacology*, 32(3), 283-295

Sutherland, M. T., Riedel, M. C., Flannery, J. S., Yanes, J. A., Fox, P. T., Stein, E. A., & Laird, A. R. (2016). Chronic cigarette smoking is linked with structural alterations in brain regions showing acute

nicotinic drug-induced functional modulations. Behavioral and Brain Functions, 12(1), 1-15

Ray, K. L., Zald, D. H., Bludau, S., Riedel, M. C., Bzdok, D., Yanes, J. A., ... & Laird, A. R. (2015). Co activation based parcellation of the human frontal pole. Neuroimage, 123, 200-211

Sutherland, M. T., Ray, K. L., Riedel, M. C., Yanes, J. A., Stein, E. A., & Laird, A. R. (2015). Neurobiological impact of nicotinic acetylcholine receptor agonists: an ALE meta-analysis of pharmacological neuroimaging studies. Biological Psychiatry 78(10), 711