

VITA
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Marie T. Banich

Address: Institute of Cognitive Science
University of Colorado at Boulder
D447C Muenzinger Hall
345 UCB
Boulder, Colorado 80309-0345
e-mail: Marie.Banich@colorado.edu
Phone: (303) 492-6655 (office); (303) 492-7177 (fax)

Education: Ph.D. University of Chicago, Chicago, IL, Ph.D., Behavioral Sciences, 1985
B.A., Tufts University, Medford, MA, Majors: Psychology, Biology, 1978

Positions:

University of Colorado - Boulder

2010 – present Executive Director, Intermountain Neuroimaging Consortium
2004 – 2016 Director, Institute of Cognitive Science
2000 – present Professor, Dept. of Psychology & Neuroscience

University of Illinois at Urbana-Champaign

1998 – 2000 Professor, Dept. of Psychology
1994 – 2000 Co-Chair, Biological Intelligence Major Research Theme, Beckman
Institute for Advanced Science and Technology
1991 – 1998 Associate Professor, Dept. of Psychology
1989 – 2000 Leader, Cognitive Neuroscience Group, Beckman Institute for Advanced
Science and Technology
1985 – 1991 Assistant Professor, Dept. of Psychology

Honors:

2025 Distinguished Career Contribution Award, Cognitive Neuroscience
Society
2024 Distinguished Professor, University of Colorado System (all four
campuses)
2013 – 2014 James Cattell Sabbatical Fellowship
2011 Faculty Research Award, Dept. of Psychology, University of Colorado
Boulder
2010 Faculty Service Award, Dept. of Psychology, University of Colorado
Boulder
2009 Fellow, Association for Psychological Science (for outstanding
achievement in Psychological Science)
2007 Fulbright Senior Scholar, (University of Verona, Italy)
2005 – 2006 Emerging Leaders Program, University of Colorado
2005 Justine & Yves Sergent Prize (to a leading female researcher in Cognitive
Neuroscience)
2002 – 2006 Member, MacArthur Foundation Network on Adolescent Development
and Juvenile Justice

1996	University Scholar, University of Illinois
1994	Arnold O. Beckman Research Award
1991	Chi Undergraduate Teaching Award, University of Illinois
1991	Participant, International School of Neuroscience, Padua, Italy
1989	Beckman Fellow, Center for Advanced Study, University of Illinois
1988	Participant, James S. McDonnell Summer Institute in Cognitive Neuroscience
1986	Arnold O. Beckman Research Award
1985	NIH Postdoctoral Fellowship (declined to take present position)
1978	B.A., <i>magna cum laude</i> , Tufts University
1976	New England Psychological Association Undergraduate Fellow
1976	Alpha Xi Delta Prize Scholarship, Tufts University

Positions in Professional Societies:

2019 – present	Governing Board, Cognitive Neuroscience Society
2010 – 2014	President, International Society for Behavioral Neuroscience

Editorial Positions:

2025 – present	Consulting Editor, <i>Current Directions in Psychological Science</i>
2025- present	Senior Advisory Board, <i>NeuroImage</i>
2015 – 2020	Editor-in-Chief, <i>Cognitive, Affective, and Behavioral Neuroscience</i>
2008 – 2014	Section Editor, Executive Function & Cognitive Control, <i>Neuropsychologia</i>

Governmental Advisory Boards:

2021 – present	Member, Advisory Committee to the National Science Foundation Directorate for Social, Behavioral and Economic Sciences
2016-2020	Standing Member, Cognition and Emotion NIH Scientific Review Panel

Publications (complete list):

A. Books

- Banich, M.T.,** Haber, S.N., Robbins, T. W. (2024). *The Frontal Cortex: Organization, Networks, and Function*. MIT Press.
- Banich, M.T. & Compton, R.J.** (2023) *Cognitive Neuroscience, 5th edition*. Cambridge, England: Cambridge University Press.
- Banich, M.T. & Compton, R.J.** (2018) *Cognitive Neuroscience, 4th edition*. Cambridge, England: Cambridge University Press.
- Banich, M.T. & Compton, R.J.** (2011) *Cognitive Neuroscience, 3rd edition*. Belmont, Ca.: Wadsworth Press.
- Banich, M.T. & Caccamise, D. (Eds.)** (2011) *Generalization of Knowledge: Multidisciplinary Perspectives*. Philadelphia: Taylor & Francis.
- Banich, M.T.** (2004) *Cognitive Neuroscience and Neuropsychology, 2nd edition*. Boston: Houghton-Mifflin Company.
- Banich, M.T. & Mack, M. (Eds.)** (2003) *Mind, Brain, & Language: Multidisciplinary Perspectives*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Banich, M.T.** (1997) *Neuropsychology: The neural bases of mental function*. Boston: Houghton-Mifflin Company.

B. Chapters

- Shenhav, A., **Banich, M.T.**, Beste, C., Buschman, T.J., Friedman, N.P., Gratton, C., Koechlin, E., Schuck, N., Wang, X-J, & O'Doherty J. "Integrative Psychological, Computational, and Mechanistic Approaches to Frontal Lobe Function." In *The Frontal Cortex: Organization, Networks and Function Banich*, Edited by M.T. Banich, S.N. Haber & T.W. Robbins, Pp. 225-262, The MIT Press.
- Banich, M.T.** (2020). How can intrusive thinking be measured *in vivo* and studies in the context of brain mechanisms? In: *Intrusive Thinking across Neuropsychiatric Disorders: From Molecules to Free Will*. edited by P.W. Kalivas and M.P. Paulus. Strüngmann Forum Reports, vol. 30, J.R. Lupp, series editor. Cambridge, MA: MIT Press.
- Visser, R.M., Anderson, M.C., Aron, A., **Banich, M.T.**, Brady, K.T., Huys, Q.J.M., Monfils, H-M., Schiller, D., Schlagenhaut, F., Schooler, J.W. & Robbins, T.W. Neuropsychological mechanisms of intrusive thinking. In: *Intrusive Thinking across Neuropsychiatric Disorders: From Molecules to Free Will*. Edited by P.W. Kalivas and M.P. Paulus. Strüngmann Forum Reports, vol. 30, J.R. Lupp, series editor. Cambridge, MA: MIT Press.
- Banich, M.T.** (2008) Hemispheric specialization and cognition. In Squire, L. (Ed.s). *New Encyclopedia of Neuroscience*. Oxford: Elsevier.
- Banich, M.T.** (2004) Magnetic Resonance Imaging. In Craighead, W.E. & Nemeroff, C.B. (Eds.) *The concise Corsini encyclopedia of Psychology and Behavioral Science, 3rd Edition*, pp. 545-546, Hoboken, N.J.: John Wiley & Sons.
- Banich, M.T.** (2003) Interacting hemispheres: A means of modulating attention. Pp 267-270. In Iacoboni, M. & Zaidel, E. (Eds.) *The parallel brain: The cognitive neuroscience of the corpus callosum*. Cambridge, Ma.: The MIT Press.
- Banich, M.T.** (2003) The divided visual field technique in laterality and interhemispheric integration. In *Experimental Methods in Neuropsychology*. Hugdahl, K (Ed.). pp.47-64, New York: Kluwer Publishers.
- Banich, M.T.** (2003) Interaction between the hemispheres and its implications for the processing capacity of the brain. In *Brain Asymmetry, 2nd edition*, Davidson, R. and Hugdahl, K. (Eds.), pp. 261-302. Cambridge Ma: MIT Press.
- Banich, M.T.**, & Scaif, P.E. (2003) The neurocognitive bases of developmental reading disorders. In *Mind, Brain, and Language: Multidisciplinary perspectives*. **Banich, M.T.** & Mack, M. (Eds.) pp. 283-306, Mahwah, N.J., Lawrence Erlbaum Associates.
- Banich, M.T.** (2002) Neuropsychology. In *Textbook of Biological Psychiatry*, D'haenen, H., den Boer, J.A., & Willner, P. (Eds.), pp. 139-153. London: John Wiley & Sons, Ltd.
- Banich, M.T.**, Milham, M.P., Jacobson, B.L., Webb, A., Wszalek, T., Cohen, N.J. & Kramer, A.F. (2001) Attentional selection and the processing of task-irrelevant information: Insights from fMRI examinations of the Stroop task. In *Vision: from neurons to cognition, Progress in Brain Research, Volume 134*, Casanova, C. & M. Ptito (Eds.), pp. 459-470, Amsterdam: Elsevier Science.
- Kramer, A.F., Hahn, S., McAuley, E., Cohen, N.J., **Banich, M.T.**, Harrison, C., Chason, J., Boileau, R.A., Bardell, L., Colcombe, A. & Vakil, E. (2001). Exercise, aging and cognition: Healthy body, healthy mind? In W. Rogers & A.D. Fisk (Eds.), *Human Factors Interventions for the Health Care of Older Adults*. pp. 91-120. Mahwah, N.J.: Erlbaum Associates.
- Banich, M.T.** & Nicholas, C.D. (1998) Integration of reading processing between the hemispheres. In *Right hemisphere language comprehension: Perspectives from cognitive neuroscience*. Beeman, M., and Chiarello, C. (Eds.), pp. 51-77, Hillsdale, N.J.: Lawrence Erlbaum Associates.

- Banich, M.T.** (1995) Interhemispheric interaction: Mechanisms of unified processing. For *Hemispheric Communication: Mechanisms and Models*. Kitterle, F.L. (Ed.), pp. 271-300, Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Banich, M.T.** (1995) Interhemispheric processing: Theoretical and empirical considerations. In *Brain Asymmetry*, Davidson, R. and Hugdahl, K. (Eds.), pp. 427-450, Cambridge Ma: MIT Press.
- Levine, S.C, **Banich, M.T.**, & Kim, H. (1987) Variations in arousal asymmetry: Implications for face processing. In *Duality and Unity of the Brain*, Ottoson, D. (Ed.) Wenner-Gren International Symposium Series, Vol. 47, pp. 207-222, London: The MacMillian Press, Ltd.

C. Articles, Reviews & Commentaries

- Wang, K., Smolker, H.R., Brown, M.S. Snyder, H.R., Cheng, Y., Hankin, B.L., & **Banich, M.T.** (in press) Intrinsic Functional Connectivity Associated with Gamma-Aminobutyric Acid and Glutamate/Glutamine in the Lateral Prefrontal Cortex and Internalizing Psychopathology in Adolescents. *Neuroscience Bulletin*.
- Carlson, K. W., 2nd, Smolker, H. R., Smith, L. L., Synder, H. R., Hankin, B. L., & **Banich, M. T.** (2025). Individual differences in intolerance of uncertainty is primarily linked to the structure of inferior frontal regions. *Cognitive, affective & behavioral neuroscience*, 10.3758/s13415-024-01262-0. Advance online publication. <https://doi.org/10.3758/s13415-024-01262-0>
- DeRosa, J., Friedman, N. P., Calhoun, V., & **Banich, M. T.** (2024). Neurodevelopmental subtypes of functional brain organization in the ABCD study using a rigorous analytic framework. *NeuroImage*, 299, 120827. <https://doi.org/10.1016/j.neuroimage.2024.120827>
- Gross, R. S., Thaweethai, T., Kleinman, L. C., Snowden, J. N., Rosenzweig, E. B., Milner, J. D., Tantisira, K. G., Rhee, K. E., Jernigan, T. L., Kinser, P. A., Salisbury, A. L., Warburton, D., Mohandas, S., Wood, J. C., Newburger, J. W., Truong, D. T., Flaherman, V. J., Metz, T. D., Karlson, E. W., Chibnik, L. B., ... **Banich, M.T.**...RECOVER-Pediatrics Group Authors (2024). Characterizing Long COVID in Children and Adolescents. *JAMA*, 332(14), 1174–1188. Advance online publication. <https://doi.org/10.1001/jama.2024.12747>
- Smolker, H. R., Reid, C. E., Friedman, N. P., & **Banich, M. T.** (2024). The Association between Exposure to Fine Particulate Air Pollution and the Trajectory of Internalizing and Externalizing Behaviors during Late Childhood and Early Adolescence: Evidence from the Adolescent Brain Cognitive Development (ABCD) Study. *Environmental health perspectives*, 132(8), 87001. <https://doi.org/10.1289/EHP13427>
- Leopold, D. R., Kim, H., Carlson, K. W., Rowe, M. A., Groff, B. R., Major, M. P., Willcutt, E. G., Cutting, L. E., & **Banich, M. T.** (2024). Stimulus shapes strategy: Effects of stimulus characteristics and individual differences in academic achievement on the neural mechanisms engaged during the N-back task. *Developmental cognitive neuroscience*, 66, 101372. <https://doi.org/10.1016/j.dcn.2024.101372>
- Coccaro, A., **Banich, M.**, Mammarella, I. C., & Liotti, M. (2024). Estimating the prevalence of Non-Verbal Learning Disability (NVLD) from the ABCD sample. *Scientific reports*, 14(1), 8212. <https://doi.org/10.1038/s41598-024-58639-x>
- DeRosa, J., Kim, H., Lewis-Peacock, J., & **Banich, M. T.** (2024). Neural Systems Underlying the Implementation of Working Memory Removal Operations. *The Journal of neuroscience* :

- the official journal of the Society for Neuroscience*, 44(2), e0283232023.
<https://doi.org/10.1523/JNEUROSCI.0283-23.2023>
- Banich, M. T.**, Wang, K., Kim, H., Leopold, D.R., Reineberg, A.E., Thompson, L.A., Willcutt, E.G., Cutting, L.E. & Petrill, S.A. (2023). The influence of Executive Processing on Reading Comprehension During Adolescence. *Mind, Brain, and Education*. 279-288.
<https://doi.org/10.1111/mbe.12359>
- Snyder, H. R., Siltan, R. L., Hankin, B. L., Smolker, H. R., Kaiser, R. H., **Banich, M. T.**, Miller, G. A., & Heller, W. (2023). The dimensional structure of internalizing psychopathology: Relation to diagnostic categories. *Clinical psychological science : a journal of the Association for Psychological Science*, 11(6), 1044–1063.
<https://doi.org/10.1177/21677026221119483>
- Smolker, H. R., **Banich, M. T.**, & Friedman, N. P. (2023). Combining dimensional models of internalizing symptoms and repetitive negative thought: Systematic replication, model comparison, and external validation. *Journal of psychopathology and clinical science*, 132(6), 657–668. <https://doi.org/10.1037/abn0000845>
- Smith, L. L., Snyder, H. R., Hankin, B. L., & **Banich, M. T.** (2023). Composite Measures of Brain Activation Predict Individual Differences in Behavioral Stroop Interference. *Journal of cognitive neuroscience*, 35(5), 781–801. https://doi.org/10.1162/jocn_a_01977
- Maes, H. H. M., Lapato, D. M., Schmitt, J. E., Luciana, M., **Banich, M. T.**, Bjork, J. M., Hewitt, J. K., Madden, P. A., Heath, A. C., Barch, D. M., Thompson, W. K., Iacono, W. G., & Neale, M. C. (2023). Genetic and Environmental Variation in Continuous Phenotypes in the ABCD Study®. *Behavior genetics*, 53(1), 1–24. <https://doi.org/10.1007/s10519-022-10123-w>
- Fassett-Carman, A. N., Smolker, H., Hankin, B. L., Snyder, H. R., & **Banich, M. T.** (2023). Major gender differences in relations between life stressor frequency and gray matter in adolescence and emerging adulthood. *Developmental psychology*, 59(4), 621–636. <https://doi.org/10.1037/dev0001489>
- Smolker, H. R., Snyder, H. R., Hankin, B. L., & **Banich, M. T.** (2022). Gray-Matter Morphometry of Internalizing-Symptom Dimensions During Adolescence. *Clinical psychological science : a journal of the Association for Psychological Science*, 10(5), 941–959.
<https://doi.org/10.1177/21677026211071091>
- Kim, H., Wang, K., Cutting, L. E., Willcutt, E. G., Petrill, S. A., Leopold, D. R., Reineberg, A. E., Thompson, L. A., & **Banich, M. T.** (2022). The Angular Gyrus as a Hub for Modulation of Language-related Cortex by Distinct Prefrontal Executive Control Regions. *Journal of cognitive neuroscience*, 34(12), 2275–2296. https://doi.org/10.1162/jocn_a_01915
- Banich, M.**, & Belger, A. (2022). Neural mechanisms of adaptive change to stress and challenge: Introduction to the special section. *Cognitive, affective & behavioral neuroscience*, 22(4), 641–642. <https://doi.org/10.3758/s13415-022-01023-x>
- Gust, C. J., Moe, E. N., Seals, D. R., **Banich, M. T.**, Andrews-Hanna, J. R., Hutchison, K. E., & Bryan, A. D. (2022). Associations Between Age and Resting State Connectivity Are Partially Dependent Upon Cardiovascular Fitness. *Frontiers in aging neuroscience*, 14, 858405.
<https://doi.org/10.3389/fnagi.2022.858405>
- Freis, S. M., Morrison, C. L., Smolker, H. R., **Banich, M. T.**, Kaiser, R. H., Hewitt, J. K., & Friedman, N. P. (2022). Executive Functions and Impulsivity as Transdiagnostic Correlates of Psychopathology in Childhood: A Behavioral Genetic Analysis. *Frontiers in human neuroscience*, 16, 863235. <https://doi.org/10.3389/fnhum.2022.863235>
- Anokhin, A. P., Luciana, M., **Banich, M.**, Barch, D., Bjork, J. M., Gonzalez, M. R., Gonzalez, R., Haist, F., Jacobus, J., Lisdahl, K., McGlade, E., McCandliss, B., Nagel, B., Nixon, S. J., Tapert, S., Kennedy, J. T., & Thompson, W. (2022). Age-related changes and longitudinal

- stability of individual differences in ABCD Neurocognition measures. *Developmental cognitive neuroscience*, 54, 101078. Advance online publication. <https://doi.org/10.1016/j.dcn.2022.101078>
- Fassett-Carman, A. N., Smolker, H., Hankin, B. L., Snyder, H. R., & **Banich, M. T.** (2022). Neuroanatomical Correlates of Perceived Stress Controllability in Adolescents and Emerging Adults. *Cognitive, affective & behavioral neuroscience*, 10.3758/s13415-022-00985-2. Advance online publication. <https://doi.org/10.3758/s13415-022-00985-2>
- Menardi, A., Reineberg, A. E., Smith, L. L., Favaretto, C., Vallesi, A., **Banich, M. T.**, & Santarnecchi, E. (2022). Topographical functional correlates of interindividual differences in executive functions in young healthy twins. *Brain structure & function*, 227(1), 49–62. <https://doi.org/10.1007/s00429-021-02388-4>
- Reineberg, A. E., **Banich, M. T.**, Wager, T. D., & Friedman, N. P. (2022). Context-specific activations are a hallmark of the neural basis of individual differences in general executive function. *NeuroImage*, 249, 118845. <https://doi.org/10.1016/j.neuroimage.2021.118845>
- Smolker, H. R., Wang, K., Luciana, M., Bjork, J. M., Gonzalez, R., Barch, D. M., McGlade, E. C., Kaiser, R. H., Friedman, N. P., Hewitt, J. K., & **Banich, M. T.** (2022). The Emotional Word-Emotional Face Stroop task in the ABCD study: Psychometric validation and associations with measures of cognition and psychopathology. *Developmental cognitive neuroscience*, 53, 101054. <https://doi.org/10.1016/j.dcn.2021.101054>
- Matyi, M. A., Cioaba, S. M., **Banich, M. T.**, & Spielberg, J. M. (2021). Identifying brain regions supporting amygdalar functionality: Application of a novel graph theory technique. *NeuroImage*, 244, 118614. <https://doi.org/10.1016/j.neuroimage.2021.118614>
- Lisdahl, K. M., ... **Banich, M.T.**, ... ABCD Consortium (2021). Substance use patterns in 9-10 year olds: Baseline findings from the adolescent brain cognitive development (ABCD) study. *Drug and alcohol dependence*, 227, 108946. <https://doi.org/10.1016/j.drugalcdep.2021.108946>
- Friedman, N. P., **Banich, M. T.**, & Keller, M. C. (2021). Twin studies to GWAS: there and back again. *Trends in cognitive sciences*, 25(10), 855–869. <https://doi.org/10.1016/j.tics.2021.06.007>
- Chaarani, B., ... **Banich, M.T.** ... ABCD Consortium (2021). Baseline brain function in the preadolescents of the ABCD Study. *Nature neuroscience*, 24(8), 1176–1186. <https://doi.org/10.1038/s41593-021-00867-9>
- Menardi, A., Reineberg, A. E., Vallesi, A., Friedman, N. P., **Banich, M. T.**, & Santarnecchi, E. (2021). Heritability of brain resilience to perturbation in humans. *NeuroImage*, 235, 118013. <https://doi.org/10.1016/j.neuroimage.2021.118013>
- Li, Y., ... **Banich, M.T.** ... Brown, S. (2021). Rates of Incidental Findings in Brain Magnetic Resonance Imaging in Children. *JAMA neurology*, 78(5), 578–587. <https://doi.org/10.1001/jamaneurol.2021.0306>
- Herting, M. M., ... **Banich, M. T.**, ... Sowell, E. R. (2021). Correspondence Between Perceived Pubertal Development and Hormone Levels in 9-10-Year-Olds From the Adolescent Brain Cognitive Development Study. *Frontiers in endocrinology*, 11, 549928. <https://doi.org/10.3389/fendo.2020.549928>
- Ross, J. M., Rieselbach, M. M., Hewitt, J. K., **Banich, M. T.**, & Rhee, S. H. (2021). Children's Knowledge of Cannabis and Other Substances in States with Different Cannabis Use Regulations. *Substance use & misuse*, 56(14), 2126–2133. <https://doi.org/10.1080/10826084.2021.1972316>

- Kim, H., Smolker, H. R., Smith, L. L., **Banich, M. T.**, & Lewis-Peacock, J. A. (2020). Changes to information in working memory depend on distinct removal operations. *Nature communications*, 11(1), 6239. <https://doi.org/10.1038/s41467-020-20085-4>
- Luo, N., Sui, J., Abrol, A., Chen, J., Turner, J. A., Damaraju, E., Fu, Z., Fan, L., Lin, D., Zhuo, C., Xu, Y., Glahn, D. C., Rodrigue, A. L., **Banich, M. T.**, Pearlson, G. D., & Calhoun, V. D. (2020). Structural Brain Architectures Match Intrinsic Functional Networks and Vary across Domains: A Study from 15 000+ Individuals. *Cerebral cortex (New York, N.Y. : 1991)*, 30(10), 5460–5470. <https://doi.org/10.1093/cercor/bhaa127>
- Wang, K., Smolker, H. R., Brown, M. S., Snyder, H. R., Hankin, B. L., & **Banich, M. T.** (2020). Association of γ -aminobutyric acid and glutamate/glutamine in the lateral prefrontal cortex with patterns of intrinsic functional connectivity in adults. *Brain structure & function*, 225(7), 1903–1919. <https://doi.org/10.1007/s00429-020-02084-9>
- Wang, K., **Banich, M. T.**, Reineberg, A. E., Leopold, D. R., Willcutt, E. G., Cutting, L. E., Del Tufo, S. N., Thompson, L. A., Opfer, J., Kanayet, F. J., Lu, Z. L., & Petrill, S. A. (2020). Left posterior prefrontal regions support domain-general executive processes needed for both reading and math. *Journal of neuropsychology*, 14(3), 467–495. <https://doi.org/10.1111/jnp.12201>
- Banich, M. T.**, Smith, L. L., Smolker, H. R., Hankin, B. L., Silton, R. L., Heller, W., & Snyder, H. R. (2020). Common and specific dimensions of internalizing disorders are characterized by unique patterns of brain activity on a task of emotional cognitive control. *International journal of psychophysiology : official journal of the International Organization of Psychophysiology*, 151, 80–93. <https://doi.org/10.1016/j.ijpsycho.2020.02.002>
- Reineberg, A. E., Hatoum, A. S., Hewitt, J. K., **Banich, M. T.** & Friedman, N. P. (2020). Genetic and Environmental Influence on the Human Functional Connectome. *Cerebral cortex (New York, N.Y. : 1991)*, 30(4), 2099–2113. <https://doi.org/10.1093/cercor/bhz225>
- Hagler, D. J., Jr, ... **Banich, M.T.** ... Dale, A. M. (2019). Image processing and analysis methods for the Adolescent Brain Cognitive Development Study. *NeuroImage*, 202, 116091. <https://doi.org/10.1016/j.neuroimage.2019.116091>
- Friedman, N.P. & **Banich, M.T.** (2019). Questionnaires and task-based measures assess different aspects of self-regulation: Both are needed. *Proceedings of the National Academy of Sciences: USA*, 116 (49), 24396-24397.
- Banich, M.T.** (2019). The Stroop effect occurs at multiple points along a cascade of control: Evidence from cognitive neuroscience approaches. *Frontiers in Psychology*, 10, October 09, 2019: ARTN 2164.
- Banich, M.T.**, & Floresco, S. (2019). Reward systems, cognition, and emotion: Introduction to the special issue. *Cognitive Affective and Behavioral Neuroscience*, 19(3), 409-414. doi: 10.3758/s13415-019-00725-z
- Wang, K., Leopold, D.R., **Banich, M.T.**, Reineberg, A.E., Willcutt, E.G., Cutting, L.E., Del Tufo S.N., Thompson, L.A., Opfer, J., Kanayet, F.J., Lu, Z.L., & Petrill, S.A. (2019). Characterizing and decomposing the neural correlates of individual differences in reading ability among adolescents with task-based fMRI. *Developmental Cognitive Neuroscience*, 37, 100647. doi:10.1016/j.dcn.2019.100647
- Orr, J.M., Imburgio, M.J., Bernard, J.A., & **Banich, M.T.** (2019). Striatal-frontal network activation during voluntary task selection under conditions of monetary reward. *Cognitive Affective and Behavioral Neuroscience*, 19(3), 568-585. doi: 10.3758/s13415-019-00689-0. Erratum in: *Cognitive Affective and Behavioral Neuroscience*. 2019 Feb 25
- Banich, M.T.**, Smolker, H.R., Snyder, H.R., Lewis-Peacock, J.A., Godinez, D.A., Wager, T.D., & Hankin, B.L. (2019). Turning down the heat: Neural mechanisms of cognitive control for

- inhibiting task-irrelevant emotional information during adolescence. *Neuropsychologia*, 125, 93-108. doi: 10.1016/j.neuropsychologia.2018.12.006.
- Smith, L.L., **Banich, M.T.**, & Friedman, N.P. (2019). Individual differences in mixing costs relate to general executive functioning. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 45(4), 606-613. doi: 10.1037/xlm0000613.
- Gould, J.R., Reineberg, A.E., Cleland, B.T., Knoblauch, K.E., Clinton, G.K., **Banich, M.T.**, Corboy, J.R., & Enoka, R.M. (2018). Adjustments in Torque Steadiness During Fatiguing Contractions Are Inversely Correlated With IQ in Persons With Multiple Sclerosis. *Frontiers in Physiology*, 9, 1404. doi: 10.3389/fphys.2018.01404.
- Reineberg, A.E., Gustavson, D.E., Benca, C., **Banich, M.T.**, & Friedman, N.P. (2018). The Relationship Between Resting State Network Connectivity and Individual Differences in Executive Functions. *Frontiers in Psychology*, 9, 1600. doi: 10.3389/fpsyg.2018.01600.
- Smolker, H.R., Friedman, N.P., Hewitt, J.K., & **Banich, M.T.** (2018). Neuroanatomical Correlates of the Unity and Diversity Model of Executive Function in Young Adults. *Frontiers in Human Neuroscience*, 12, 283. doi: 10.3389/fnhum.2018.00283.
- Vargas, T., Snyder, H., **Banich, M.**, Newberry, R., Shankman, S.A., Strauss, G.P., & Mittal, V.A. (2018). Altered selection during language processing in individuals at high risk for psychosis. *Schizophrenia Research*, 202, 303-309. doi: 10.1016/j.schres.2018.06.036.
- Casey, B.J., Cannonier, T., Conley, M.I., Cohen, A.O., Barch, D.M., Heitzeg, M.M., Soules, M.E., Teslovich, T., Dellarco, D.V., Garavan, H., Orr, C.A., Wager, T.D., **Banich, M.T.**, Speer, N.K., Sutherland, M.T., Riedel, M.C., Dick, A.S., Bjork, J.M., Thomas, K.M., Chaarani, B., Mejia, M.H., Hagler, D.J. Jr, Daniela Cornejo, M., Sicut, C.S., Harms, M.P., Dosenbach, N.U.F., Rosenberg, M., Earl, E., Bartsch, H., Watts, R., Polimeni, J.R., Kuperman, J.M., Fair, D.A., Dale, A.M., & ABCD Imaging Acquisition Workgroup. (2018). The Adolescent Brain Cognitive Development (ABCD) study: Imaging acquisition across 21 sites. *Developmental Cognitive Neuroscience*, 32, 43-54. doi: 10.1016/j.dcn.2018.03.001
- Luciana, M., Bjork, J.M., Nagel, B.J., Barch, D.M., Gonzalez, R., Nixon, S.J., & **Banich, M.T.** (2018). Adolescent neurocognitive development and impacts of substance use: Overview of the adolescent brain cognitive development (ABCD) baseline neurocognition battery. *Developmental Cognitive Neuroscience*, 32, 67-79. doi: 10.1016/j.dcn.2018.02.006.
- Mackiewicz Seghete, K.L., DePrince, A.P., & **Banich, M.T.** (2018). Association Between Initial Age of Exposure to Childhood Abuse and Cognitive Control: Preliminary Evidence. *Journal of Trauma and Stress*, 31(3), 437-447. doi: 10.1002/jts.22290.
- Banich, M.T.** (2018). Emerging themes in cognitive control: Commentary on the special issue of Psychophysiology entitled "Dynamics of Cognitive Control: A View Across Methodologies". *Psychophysiology*, 55(3). doi: 10.1111/psyp.13060
- Iacono, W.G., Heath, A.C., Hewitt, J.K., Neale, M.C., **Banich, M.T.**, Luciana, M.M., Madden, P.A., Barch, D.M., & Bjork, J.M. (2018). The utility of twins in developmental cognitive neuroscience research: How twins strengthen the ABCD research design. *Developmental Cognitive Neuroscience*, 32, 30-42. doi: 10.1016/j.dcn.2017.09.001.
- de la Vega, A., Yarkoni, T., Wager, T.D., & **Banich, M.T.** (2018). Large-scale meta-analysis suggests low regional modularity in lateral frontal cortex. *Cerebral Cortex*, 28(10), 3414-3428. doi: 10.1093/cercor/bhx204
- Yamamoto, D.J., **Banich, M.T.**, Regner, M.F., Sakai, J.T., & Tanabe, J. (2017). Behavioral approach and orbitofrontal cortical activity during decision-making in substance dependence. *Drug and Alcohol Dependence*, 180, 234-240. doi: 10.1016/j.drugalcdep.2017.08.024.

- Mackiewicz Seghete, K.L., Kaiser, R.H., DePrince, A.P. & **Banich MT.** (2017). General and emotion-specific alterations to cognitive control in women with a history of childhood abuse. *NeuroImage: Clinical*, 16, 151-164. doi: 10.1016/j.nicl.2017.06.030
- Fogleman, N.D., Naaz, F., Knight, L.K., Stoica, T., Patton, S.C., Olson-Madden, J.H., Barnhart, M.C., Hostetter, T.A., Forster, J., Brenner, L.A., **Banich M.T.** & Depue BE. (2017). Reduced lateral prefrontal cortical volume is associated with performance on the modified Iowa Gambling Task: A surface based morphometric analysis of previously deployed veterans. *Psychiatry Research*, 267, 1-8. doi: 10.1016/j.psychres.2017.06.014
- Crowley, T.J., Dalwani, M.S., Sakai, J.T., Raymond, K.M., McWilliams, S.K., **Banich, M.T.** & Mikulich-Gilbertson, S.K. (2017). Children's brain activation during risky decision-making: A contributor to substance problems? *Drug and Alcohol Dependence*, 178, 57-65. doi:10.1016/j.drugalcdep.2017.02.028
- Sakai, J.T., Dalwani, M.S., Mikulich-Gilbertson, S.K., Raymond, K., McWilliams, S., Tanabe, J., Rojas, D., Regner, M., **Banich, M.T.**, & Crowley, T.J. (2017). Imaging decision about whether to benefit self by harming others: Adolescents with conduct and substance problems, with or without callous-unemotionality, or developing typically. *Psychiatry Research*, 263, 103-112. doi: 10.1016/j.psychres.2017.03.004
- Godinez, D.A., McRae, K., Andrews-Hanna, J.R., Smolker, H. & **Banich, M.T.** (2016). Differences in frontal and limbic brain activation in a small sample of monozygotic twin pairs discordant for severe stressful life events. *Neurobiology of Stress*, 28, 26-36. doi: 10.1016/j.ynstr.2016.10.002
- Orr, J.M., Paschall, C.J., & **Banich, M.T.** (2016). Recreational marijuana use impacts white matter integrity and subcortical (but not cortical) morphometry. *Neuroimage: Clinical*, 12, 47-56. doi:10.1016/j.nicl.2016.06.006
- Burdwood, E.N., Infantolino, Z.P., Crocker, L.D. Spielberg, J.M., **Banich, M.T.**, Miller, G.A., & Heller, W. (2016). Resting-state functional connectivity differentiates anxious apprehension and anxious arousal. *Psychophysiology*, 53, 1451-1459. doi: 10.1111/psyp.12696
- de la Vega, A., Chang, L.J., **Banich, M.T.**, Wager, T.D., & Yarkoni, T. (2016). Large-Scale Meta-Analysis of Human Medial Frontal Cortex Reveals Tripartite Functional Organization. *Journal of Neuroscience*, 36, 6553-6562. doi: 10.1523/JNEUROSCI.4402-15.2016.
- Reineberg, A.E., & **Banich, M.T.** (2016). Functional connectivity at rest is sensitive to individual differences in executive function: A network analysis. *Human Brain Mapping*, 37, 2959-75. doi: 10.1002/hbm.23219.
- Boulos, P.K., Dalwani, M.S., Tanabe, J., Mikulich-Gilbertson, S.K., **Banich, M.T.**, Crowley, T.J., Sakai, J.T. (2016). Brain Cortical Thickness Differences in Adolescent Females with Substance Use Disorders. *PLoS One*, 11(4), e0152983. doi: 10.1371/journal.pone.0152983.
- Panta, S.R., Wang, R., Fries, J., Kalyanam, R., Speer, N., **Banich, M.**, Kiehl, K., King, M., Milham, M., Wager, T.D., Turner, J.A., Plis, S.M., Calhoun, V.D. (2016). A Tool for Interactive Data Visualization: Application to Over 10,000 Brain Imaging and Phantom MRI Data Sets. *Frontiers in Neuroinformatics*, 10, 9. doi: 10.3389/fninf.2016.00009.
- Banich, M.T.** (2016). The future of CABN--A conceptual triad: Psychological theory, neurobiological approaches, computational methods. *Cognitive Affective and Behavioral Neuroscience*, 16, 1-2. doi: 10.3758/s13415-016-0401-z.
- Depue, B. E., Orr, J. M., Smolker, H. R., Naaz, F., & **Banich, M. T.** (2016). The Organization of Right Prefrontal Networks Reveals Common Mechanisms of Inhibitory Regulation Across

- Cognitive, Emotional, and Motor Processes. *Cerebral Cortex*, 26(4), 1634-1646. doi:10.1093/cercor/bhu324
- Chumachenko, S.Y., Sakai, J.T., Dalwani, M.S., Mikulich-Gilbertson, S.K., Dunn, R., Tanabe, J., Young, S., McWilliams, S.K., **Banich, M.T.**, & Crowley, T.J. (2015). Brain cortical thickness in male adolescents with serious substance use and conduct problems. *American Journal of Drug and Alcohol Abuse*, 41, 414-424. doi: 10.3109/00952990.2015.1058389.
- Senholzi, K.B., Depue, B.E., Correll, J., **Banich, M.T.**, & Ito, T.A. (2015). Brain activation underlying threat detection to targets of different races. *Social Neuroscience*, 10(6), 651-662. doi:10.1080/17470919.2015.1091380
- Godinez, D. A., Willcutt, E.G., Burgess, G.C., Depue, B.E., Andrews-Hanna, J.R., & **Banich, M.T.** (2015). Familial risk and ADHD-specific neural activity revealed by case-control, discordant twin design. *Psychiatry Research: Neuroimaging*, 223(3), 458-465. doi:10.1016/j.psychresns.2015.07.019
- Spielberg, J. M., Miller, G. A., Heller, W., & **Banich, M. T.** (2015). Flexible brain network reconfiguration supporting inhibitory control. *Proceedings of the National Academy of Sciences of the United States of America*, 112, 10020-10025. doi:10.1073/pnas.1500048112
- Krmpotich, T., Mikulich-Gilbertson, S., Sakai, J., Thompson, L., **Banich, M. T.**, & Tanabe, J. (2015). Impaired Decision-Making, Higher Impulsivity, and Drug Severity in Substance Dependence and Pathological Gambling. *Journal of Addiction Medicine*, 9(4), 273-280. doi:10.1097/ADM.0000000000000129
- Banich, M. T.**, Mackiewicz Seghete, K. L., Depue, B. E., & Burgess, G. C. (2015). Multiple modes of clearing one's mind of current thoughts: overlapping and distinct neural systems. *Neuropsychologia*, 69, 105–117. doi:10.1016/j.neuropsychologia.2015.01.039
- Banich, M. T.** & Depue, B. E. (2015). Recent advances in understanding neural systems that support inhibitory control. *Current Opinion in Behavioral Sciences*, 1, 17–22. doi:10.1016/j.cobeha.2014.07.006
- Crowley, T. J., Dalwani, M. S., Mikulich-Gilbertson, S. K., Young, S. E., Sakai, J. T., Raymond, K. M., McWilliams, S.K., Roark, M.J., & **Banich, M.T.** (2015). Adolescents' Neural Processing of Risky Decisions: Effects of Sex and Behavioral Disinhibition. *PLoS ONE*, 10(7), e0132322. doi:10.1371/journal.pone.0132322
- Dalwani, M. S., McMahon, M. A., Mikulich-Gilbertson, S. K., Young, S. E., Regner, M. F., Raymond, K. M., McWilliams, S.K., **Banich, M.T.**, Tanabe, J.L., Crowley, T.J., & Sakai, J.T. (2015). Female adolescents with severe substance and conduct problems have substantially less brain gray matter volume. *PLoS ONE*, 10(5), e0126368. doi:10.1371/journal.pone.0126368
- Orr, J. M., Smolker, H. R., & **Banich, M. T.** (2015). Organization of the Human Frontal Pole Revealed by Large-Scale DTI-Based Connectivity: Implications for Control of Behavior. *PLoS ONE*, 10(5), e0124797. doi:10.1371/journal.pone.0124797
- Smolker, H. R., Depue, B. E., Reineberg, A. E., Orr, J. M., & **Banich, M. T.** (2015). Individual differences in regional prefrontal gray matter morphometry and fractional anisotropy are associated with different constructs of executive function. *Brain Structure & Function*, 220(3), 1291–1306. doi:10.1007/s00429-014-0723-y
- Kaiser, R. H., Andrews-Hanna, J. R., Spielberg, J. M., Warren, S. L., Sutton, B. P., Miller, G. A., Heller, W., & **Banich, M.T.** (2015). Distracted and down: neural mechanisms of affective interference in subclinical depression. *Social Cognitive and Affective Neuroscience*, 10(5), 654–663. doi:10.1093/scan/nsu100

- Reineberg, A.E., Andrews-Hanna, J.R., Depue, B.E., Friedman, N.P., & **Banich, M.T.** (2015). Resting-state networks predict individual differences in common and specific aspects of executive function. *Neuroimage*, *104*, 69-78. doi: 10.1016/j.neuroimage.2014.09.045. PMID: PMC4262251
- Banich, M.T.** & Munakata, Y. (2014). Modes of executive function and their coordination: introduction to the special section. *Neuropsychologia*, *62*, 319-320.
- Spielberg, J.M., Miller, G.A., Warren, S.L., Sutton, B.P., **Banich, M.**, & Heller, W. (2014). Transdiagnostic dimensions of anxiety and depression moderate motivation-related brain networks during goal maintenance. *Depression & Anxiety*, *31*, 805-813.
- de la Vega, A., Brown, M.S., Snyder, H.R., Singel, D., Munakata, Y., & **Banich, M.T.** (2014). Individual differences in the balance of GABA to glutamate in pFC predict the ability to select among competing options. *Journal of Cognitive Neuroscience*, *26*, 2490-2502.
- Snyder, H.R., **Banich, M.T.**, & Munakata Y. (2014). All competition is not alike: neural mechanisms for resolving underdetermined and prepotent competition. *Journal of Cognitive Neuroscience*, *26*, 2608-2623.
- Depue, B.E., Olson-Madden, J., Smolker, H.R., Rajamani, M., Brenner, L.A., & **Banich, M.T.** (2014). Reduced amygdala volume is associated with deficits in inhibitory control: A voxel and surface-based morphometric analysis of comorbid PTSD/mTBI. *Biomed Research International*, 2014:691505. doi: 10.1155/2014/691505.
- Yamamoto, D.J., Reynolds, J., Krmpotich, T., **Banich, M.T.**, Thompson, L. & Tanabe, J. (2014). Temporal profile of fronto-striatal-limbic activity during implicit decisions in drug dependence. *Drug and Alcohol Dependence*, *136*, 108-114.
- Dalwani, M.S., Tregellas, J.R., Andrews-Hanna, J.R., Mikulich-Gilbertson, S.K., Raymond, K.M., **Banich, M.T.**, Crowley, T.J., & Sakai, J.T. (2014). Default mode network activity in male adolescents with conduct and substance use disorder. *Drug and Alcohol Dependence*, *134*, 242-250.
- Orr, J.M., & **Banich, M.T.** (2014). The neural mechanisms underlying internally and externally guided task selection. *Neuroimage*, *84*, 191-205.
- Andrews-Hanna, J.R., Kaiser, R.H., Turner, A.E.J., Reineberg, A.E., Godinez, D., Dimidjian, S. & **Banich, M.T.** (2013). A penny for your thoughts: dimensions of self-generated thought content and relationships with individual differences in emotional wellbeing. *Frontiers in Psychology: Perception Science*, doi: 10.3389/fpsyg.2013.00900
- Depue, B.E., Ketz, N., Mollison, M.V., Nyhus, E., **Banich, M.T.**, & Curran, T. (2013). ERPs and neural oscillations during volitional suppression of memory retrieval. *Journal of Cognitive Neuroscience*, *25*, 1624-1633.
- Tanabe, J., Reynolds, J., Krmpotich, T., Claus, E., Thompson, L.L., Du, Y.P., & **Banich, M.T.** (2013). Reduced neural tracking of prediction error in substance dependent individuals. *American Journal of Psychiatry*, *170*, 1356-1363.
- Tanabe, J., York, P., Krmpotich, T., Miller, D., Dalwani, M., Sakai, J.T., Mikulich-Gilbertson, S.K., Thompson, L., Claus, E., **Banich, M.**, & Rojas, D.C. (2013). Insula and orbitofrontal cortical morphology in substance dependence is modulated by sex. *American Journal of Neuroradiology*, *34*, 1150-1156.
- Perry, R.I., Krmpotich, T., Thompson, L.L., Mikulich-Gilbertson, S.K., **Banich, M.T.**, & Tanabe J. (2013). Sex modulates approach systems and impulsivity in substance dependence. *Drug and Alcohol Dependence*, *133*, 222-227.
- Warren, S.L., Crocker, L.D., Spielberg, J.M., Engels, A.S., **Banich, M.T.**, Sutton, B.P., Miller, G.A., & Heller, W. (2013). Cortical organization of inhibition-related functions and modulation by psychopathology. *Frontiers in Human Neuroscience*, 2013 Jun 13;7:271. doi:

- 10.3389/fnhum.2013.00271.
- Stollstorff, M., Munakata, Y., Jensen, A.P., Guild, R.M., Smolker, H.R., Devaney, J.M., & **Banich, M.T.** (2013). Individual differences in emotion-cognition interactions: emotional valence interacts with serotonin transporter genotype to influence brain systems involved in emotional reactivity and cognitive control. *Frontiers in Human Neuroscience*, Jul 4;7:327. doi 10.3389/fnhum.2013.00327.
- Banich, M.T.**, De La Vega, A., Andrews-Hanna, J.R., Mackiewicz-Seghete, K., Du, Y., and Claus, E.D. (2013). Developmental trends and individual differences in brain systems involved in intertemporal choice during adolescence. *Psychology of Addictive Behaviors*. 27, 416-430.
- Krmpotich, T.D., Tregellas, J.R., Thompson, L.L., **Banich, M.T.**, Klenk, A.M., Tanabe, J.L. (2013). Resting-state activity in the left executive control network is associated with behavioral approach and is increased in substance dependence. *Drug and Alcohol Dependence*, 129, 1-7.
- Dal Molin, A., Marzi, C.A., **Banich, M.T.**, & Girelli, M. (2013). Interhemispheric transfer of spatial and semantic information: Electrophysiological evidence. *Psychophysiology*, 50, 377-387.
- Whitmer, A., & **Banich, M.T.** (2012) Brain activity related to task set inhibition: an fMRI study. *Cognitive, Affective and Behavioral Neuroscience*, 12, 661-670.
- Crocker, L.D., Heller, W., Spielberg, J.M., Warren, S.L., Bredemeier, K., Sutton, B.P., **Banich, M.T.**, & Miller, G.A. (2012) Neural mechanisms in attentional control differentiate trait and state negative affect. *Frontiers in Emotion Science*, 3, 298.
- Spielberg J.M., Miller, G.A., Warren, S.L., Engels, A.S., Crocker, L.D., **Banich, M.T.**, Sutton, B.P., Heller W. (2012) A brain network instantiating approach and avoidance motivation. *Psychophysiology*, 49, 1200-1214.
- Henderson, R.K., Snyder, H.R., Gupta, T., & **Banich, M.T.** (2012) When does stress help or harm? The effects of stress controllability and subjective stress response on Stroop performance. *Frontiers in Psychology*, 3:179, doi: 10.3389/fpsyg.2012.00179.
- Chatham, C.H., Claus, E.D., Kim, A., Curran, T., **Banich, M.T.**, & Munakata, Y. (2012). Cognitive control reflects context monitoring, not motoric stopping, in response inhibition. *PLoS One*, 7(2):e31546. Epub 2012 Feb 27.
- Thompson, L.L., Claus, E.D., Mikulich-Gilbertson, S.K., **Banich, M.T.**, Crowley, T., Krmpotich, T., Miller, D., & Tanabe, J. (2011). Negative reinforcement learning is affected in substance dependence. *Drug and Alcohol Dependence*, 123, 84-90.
- Munakata, Y., Herd, S.A., Chatham, C.H., Depue, B.E., **Banich, M.T.** & O'Reilly, R.C. (2011). A unified framework for inhibitory control. *Trends in Cognitive Science*, 15, 453-459.
- Depue B.E., & **Banich, M.T.** (2011). Increased inhibition and enhancement of memory retrieval are associated with reduced hippocampal volume. *Hippocampus*, 22, 651-655.
- Snyder, H.R., **Banich, M.T.**, & Munakata, Y. (2011) Choosing Our Words: Retrieval and Selection Processes Recruit Shared Neural Substrates in Left Ventrolateral Prefrontal Cortex. *Journal of Cognitive Neuroscience*, 23, 3470-3482.
- Andrews-Hanna J.R., Mackiewicz Seghete K.L., Claus, E.D., Burgess, G.C., Ruzic, L., & **Banich, M.T.** (2011). Cognitive control in adolescence: neural underpinnings and relation to self-report behaviors. *PLoS One*, 6(6):e21598
- Dalwani, M., Sakai, J.T., Mikulich-Gilbertson, S.K., Tanabe, J., Raymond, K., McWilliams, S.K., Thompson, L.L., **Banich, M.T.**, & Crowley, T.J. (2011). Reduced cortical gray matter volume in male adolescents with substance and conduct problems. *Drug and Alcohol Dependence*, 118, 295-305.

- Silton, R.L., Heller, W., Engels, A.S., Towers, D.N., Spielberg, J.M., Edgar, J.C., Sass, S.M., Stewart, J.L., Sutton, B.P., **Banich, M.T.**, & Miller, G.A. (2011). Depression and anxious apprehension distinguish frontocingulate cortical activity during top-down attentional control. *Journal of Abnormal Psychology, 120*, 272-85.
- Spielberg, J.M., Miller, G.A., Engels, A.S., Herrington, J.D., Sutton, B.P., **Banich, M.T.**, & Heller, W. (2011). Trait approach and avoidance motivation: Lateralized neural activity associated with executive function. *Neuroimage, 54*, 661-670.
- Gee, D.G., Biswal, B.B., Kelly, C., Stark, D.E., Margulies, D.S., Shehzad, Z., Uddin, L.Q., Klein, D.F., **Banich, M.T.**, Castellanos, F.X., & Milham, M.P. (2011). Low frequency fluctuations reveal integrated and segregated processing among the cerebral hemispheres. *Neuroimage, 54*, 517-527.
- Depue, B.E., Burgess, G.C., Willcutt, E.G., Ruzic, L., & **Banich, M.T.** (2010). Inhibitory control of memory retrieval and motor processing associated with the right lateral prefrontal cortex: Evidence from deficits in individuals with ADHD. *Neuropsychologia, 48*, 3909-3917.
- Crowley, T.J., Dalwani, M.S., Mikulich-Gilbertson, S.K., Du, Y.P., Lejuez, C.W., Raymond, K.M. & **Banich, M.T.** (2010). Risky decisions and their consequences: Neural processing by boys with antisocial substance disorder. *PLoS ONE 5(9)*: e12835. doi:10.1371/journal.pone.0012835
- Snyder, H.R., Hutchison, N., Nyhus, E., Curran, T., **Banich, M.T.**, O'Reilly, R.C., & Munakata, Y. (2010). Neural inhibition enables selection during language processing. *Proceeding of the National Academy of Sciences USA, 107*, 16483-16488.
- Depue, B.E., Burgess, G.C., Bidwell, L.C., Willcutt, E.G., & **Banich, M.T.** (2010). Behavioral performance predicts grey matter reductions in the right inferior frontal gyrus in young adults with combined type ADHD. *Psychiatry Research: Neuroimaging, 182*, 231-237.
- Depue, B.E., Burgess, G.C., Willcutt, E.G., Bidwell, L.C., Ruzic, L. & **Banich, M.T.** (2010). Symptom-correlated brain regions in young adults with combined type ADHD: Their organization, variability, and relation to behavioral performance. *Psychiatry Research: Neuroimaging, 182*, 86-102.
- Banich, M.T.** (2010). Brain imaging of the neural systems affected in adults with attention-deficit/hyperactivity disorder. *Expert Reviews in Neurotherapeutics, 10*, 1523-1527.
- Burgess, G.C., Depue, B.E., Ruzic, L., Willcutt, E.G., Du, Y.P. & **Banich, M.T.** (2010). Attentional Control Activation Relates to Working Memory in Attention-Deficit/Hyperactivity Disorder. *Biological Psychiatry, 67*, 632-640.
- Herrington, J.D., Heller, W., Mohanty, A., Engels, A.S., **Banich, M.T.**, Webb, A.G. & Miller, G.A. (2010) Localization of asymmetric brain function in emotion and depression. *Psychophysiology, 47*, 442-454.
- Silton, R.L., Heller, W., Towers, D.N., Engels, A.S., Spielberg, J.M., Edgar, J.C., Sass, S.M., Stewart, J.L., Sutton, B.P., **Banich, M.T.**, & Miller, G.A. (2010). The time course of activity in dorsolateral prefrontal cortex and anterior cingulate cortex during top-down attentional control. *Neuroimage, 50*, 1292-1302.
- Engels, A., Heller, W., Spielberg, J.M., Warren, S.L., Sutton, B.P., **Banich, M.T.**, Miller, G.A. (2010). Co-occurring anxiety influences patterns of brain activity in depression. *Cognitive, Affective, and Behavioral Neuroscience, 10*, 141-156.
- Cauffman, E., Shulman, E., Claus, E., **Banich, M.**, Graham, S., Woolard, J. & Steinberg, L. (2010). Age differences in affective decision making. *Developmental Psychology, 46*, 193-207
- Whitmer, A. J. & **Banich, M.T.** (2010). Trait rumination and inhibitory deficits in long-term memory. *Cognition & Emotion, 24*, 168-179.

- Steinberg, L., Cauffman, E., Woolard, J., Graham, S., & **Banich, M.T.** (2009). Are adolescents less mature than adults? Minor's access to abortion, the juvenile death penalty, and the alleged APA "Flip-Flop". *American Psychologist*, 64, 583-594.
- Steinberg, L., Cauffman, E., Woolard, J., Graham, S. & **Banich, M.T.** (2009). Reconciling the Complexity of Human Development With the Reality of Legal Policy: Reply to Fischer, Stein, and Heikkinen, *American Psychologist*, 64, 601-604.
- Banich, M.T.**, Burgess, G.C., Depue, B.E., Ruzic, L., Bidwell, L.C., Hitt-Laustsen, S., Du, Y.P., & Willcutt, E.G. (2009). The neural basis of sustained and transient attentional control in young adults with ADHD. *Neuropsychologia*, 47, 3095-3014.
- Banich, M.T.** (2009). Executive Function: The search for an integrated account. *Current Directions in Psychological Science*, 18, 89-94.
- Banich, M.T.**, Mackiewicz, K.L., Depue B.E., Whitmer, A., Miller, G.A., & Heller, W. (2009). Cognitive Control Mechanisms, Emotion, and Memory: A neural perspective with implications for psychopathology. *Neuroscience and Biobehavioral Reviews*, 33, 613-630.
- Steinberg, L., Graham, S., O'Brien, L., Woolard, J., Cauffman, E. & **Banich, M.** (2009). Age differences in future orientation and delay discounting. *Child Development*, 80, 28-44.
- Scalf, P.E., **Banich, M.T.**, & Erickson, A.B. (2009). Interhemispheric interaction expands attentional capacity in an auditory selective attention task. *Experimental Brain Research*, 194, 317-322.
- Hutchinson, A.D., Mathias, J.L., Jacobson, B.L., Ruzic, L., Bond, A.N. & **Banich, M.T.** (2009). Relationship between intelligence and the size and composition of the corpus callosum. *Experimental Brain Research*, 192, 455-464.
- Tanabe, J., Tregellas, J.R., Thompson, L., Dalwani, M., Owens, E., Crowley, T., & **Banich, M.T.** (2009). Medial orbitofrontal cortex gray matter is reduced in abstinent substance dependent individuals. *Biological Psychiatry*, 65, 160-164.
- Stark, D.E., Margulies, D.S., Shehzad, Z.E., Reiss, P., Kelly, A.M., Uddin, L.Q., Gee, D.G., Roy, A.K., **Banich, M.T.**, Castellanos, F.X., & Milham, M.P. (2008). Regional variation in interhemispheric coordination of intrinsic hemodynamic fluctuations. *Journal of Neuroscience*, 28, 13754-13764,
- Steinberg, L., Albert, D., Cauffman, E., **Banich, M.**, Graham, S., Woolard, J. (2008). Age differences in sensation seeking and impulsivity as indexed by behavior and self-report: Evidence for a dual systems model. *Developmental Psychology*, 44, 1764-1778.
- Hutchinson, A.D., Mathias J.L. & **Banich, M.T.** (2008). Corpus callosum morphology in children and adolescents with Attention Deficit Hyperactivity Disorder: a meta-analytic review. *Neuropsychology*, 22, 341-349.
- Filbey, F.M., Claus, E., Audette, A.R., Niculescu, M., **Banich, M.T.**, Tanabe, J, Du, Y.P., & Hutchinson, K.E. (2008). Exposure to the taste of alcohol elicits activation of the mesocorticolimbic neurocircuitry. *Neuropsychopharmacology*, 33, 1391-1401.
- Banich, M.T.**, Crowley, T.J., Thompson, L.L., Jacobson, B.L., Liu, X., Raymond, K.M., & Claus, E.D. (2007). Brain activation during the Stroop task in adolescents with severe substance and conduct problems: A pilot study. *Drug and Alcohol Dependence*, 90, 175-182.
- Depue, B. Curran, T. & **Banich, M.T.** (2007). Prefrontal regions orchestrate suppression of emotional memories via a two-phase process. *Science*, 317, 215-219.
- Whitmer, A. & **Banich, M.T.** (2007). Inhibition versus switching deficits in different forms of rumination. *Psychological Science*, 18, 546-553.
- Yoshizaki, K., Weissman, D.H., & **Banich, M.T.** (2007). A hemispheric division of labor aids mental rotation. *Neuropsychology*, 21, 326-336.

- Scalf, P.E., **Banich, M.T.**, Kramer, A.F., Narechania, K., & Simon, C.L. (2007). Double take: Parallel processing by the cerebral hemispheres reduces the attentional blink. *Journal of Experimental Psychology: Human Perception and Performance*, 33, 298-329.
- Tanabe, J., Thompson, L., Claus, E., Dalwani, M., Hutchison, K., & **Banich, M.T.** (2007). Prefrontal cortex activity is reduced in gambling and non-gambling substance users during decision making. *Human Brain Mapping*, 28, 1276-1286.
- Engels, A.S., Heller, W., Mohanty, A., Herrington, J.D., **Banich, M.T.**, Webb, A.G., & Miller, G.A. (2007). Specificity of regional brain activity in anxiety types during emotion processing. *Psychophysiology*, 44, 352-363.
- Mohanty, A., Engels, A.S., Herrington, J.D., Heller, W., Ringo Ho, M-H.R., **Banich, M.T.**, Webb, A.G., Warren, S.L., & Miller, G.A. (2007). Differential engagement of anterior cingulate cortex subdivisions for cognitive and emotional function. *Psychophysiology*, 44, 343-351.
- Lopez, M. Kosson, D.S., Weissman, D.H., & **Banich, M.T.** (2007). Interhemispheric integration in psychopathic offenders. *Neuropsychology*, 21, 82-93.
- Lui, X., **Banich, M.T.**, Jacobson, B.L., & Tanabe, J.L. (2006). Response and non-response related aspects of attentional selection as ascertained by fMRI. *Cerebral Cortex*, 16, 827-834.
- Depue, B. E. **Banich, M.T.**, & Curran, T. (2006) Suppression of emotional and non-emotional content in memory: Effects of repetition on cognitive control. *Psychological Science*, 17, 441-447.
- Herd, S.A., **Banich, M.T.**, & O'Reilly, R.C. (2006). Neural mechanisms of cognitive control: An integrative model of Stroop task performance and fMRI data, *Journal of Cognitive Neuroscience*, 18, 22-32.
- Spencer, K.M. & **Banich, M.T.** (2005) Hemispheric biases and the control of visuospatial attention: an ERP study. *Biomedical Central Neuroscience*, 6, 51.
- Milham, M.P. & **Banich, M.T.** (2005) Anterior cingulate cortex: An fMRI analysis of conflict specificity & functional differentiation. *Human Brain Mapping*, 25, 328-335.
- Mohanty, A. Herrington, J.D., Koven, N.S., Fisher, J.E., Wenzel, E.A., Webb, A.G., Heller, W., **Banich, M.T.**, & Miller, G.A. (2005) Neural mechanisms of affective interference in schizotypy. *Journal of Abnormal Psychology*, 114, 16-27.
- Herrington, J.D., Mohanty, A., Koven, N.S., Fisher, J.E., Stewart, J.L., **Banich, M.T.**, Webb, A.G., Miller, G.A., & Heller, W. (2005) Emotion-modulated performance and activity in left dorsolateral prefrontal cortex. *Emotion*, 5, 200-207.
- Liu, X., **Banich, M.T.**, Jacobson, B.L. & Tanabe, J.L. (2004) Common and distinct neural substrates of attentional control in an integrated Simon and spatial Stroop task as assessed by event-related fMRI. *Neuroimage*, 22, 1097-1106.
- Erickson KI, Milham MP, Colcombe SJ, Kramer AF, Banich MT, Webb A, Cohen NJ. (2004) Behavioral conflict, anterior cingulate cortex, and experiment duration: implications of diverging data. *Human Brain Mapping*;21, 98-107.
- Milham, M.P., **Banich, M.T.** & Barad, V. (2003). Competition for priority in processing increases prefrontal cortex's involvement in top-down control: an event-related fMRI study of the Stroop task. *Cognitive Brain Research*, 17, 212-222.
- Compton, R.J., **Banich, M.T.**, Mohanty, A. Milham, M.P., Herrington, J., Miller, G.A., Scalf, P.E., Webb, A. & Heller, W. (2003) Paying attention to emotion: An fMRI investigation of cognitive and emotional Stroop tasks. *Cognitive, Affective & Behavioral Neuroscience*, 3, 81-86.
- Koven, N., Heller, W., **Banich, M.T.** & Miller, G.A. (2003) Relationships of distinct affective dimensions to performance on an emotional Stroop task. *Cognitive Therapy and Research*, 27, 671-680.

- Milham, M.P., **Banich, M.T.**, Claus, E., & Cohen, N. (2003.) Practice-related effects demonstrate complementary roles of anterior cingulate and prefrontal cortices in attentional control. *Neuroimage*, 18, 483-493.
- Milham, M.P., Erickson, K.I., **Banich, M.T.**, Kramer, A.F., Webb, A., Wszalek, T. & Cohen, N.J. (2002) Attentional control in the aging brain: Insights from an fMRI study of the Stroop task. *Brain & Cognition*, 49, 277-296
- Passarotti, A. M., **Banich, M.T.**, Sood, R.K., & Wong, J.M. (2002) A generalized role of interhemispheric interaction under attentionally-demanding conditions: Evidence from the auditory and tactile modalities. *Neuropsychologia*, 40, 1082-1096.
- Milham, M.P., **Banich, M.T.**, Webb, A., Barad, V., Cohen, N.J., Wszalek, T. & Kramer, A.F. (2001) The relative involvement of anterior cingulate and prefrontal cortex in attentional control depends on nature of conflict. *Cognitive Brain Research*, 12, 467-473.
- DiGirolamo, G.J., Kramer, A.F., Barad, V., Cepeda, N.J., Weissman, D.H., Milham, M.P., Wszalek, T.M., Cohen, N.J., **Banich, M.T.**, Webb, A., Beloposky, A.V., & McAuley, E. (2001) General and Task-Specific Frontal Lobe Recruitment in Older Adults during Executive Processes: A fMRI investigation of Task-Switching. *Neuroreport*, 12, 2065-2071.
- Banich, M.T.**, Milham, M.P., Atchley, R.A, Cohen, N.J, Webb, A., Wszalek, T., Kramer, A.F., Liang, Z.-P., Wright, A., Shenker, J., Magin, R., Barad, V., Gullett, D., Shah, C., & Brown, C. (2000) fMRI studies of Stroop tasks reveal unique roles of anterior and posterior brain systems in attentional selection. *Journal of Cognitive Neuroscience*, 12, 988-1000.
- Brown, W.S. and **Banich, M.T.** (2000) Special Guest Editors: "Development of the Corpus Callosum and Interhemispheric Interactions". *Developmental Neuropsychology*, 18(1).
- Banich, M.T.**, Passarotti, A., & Janes, D. (2000) Interhemispheric interaction during childhood: I. Neurologically-intact children. *Developmental Neuropsychology*. 18, 33-51.
- Banich, M.T.**, Passarotti, A., White, D. A., Nortz, M.J., & Steiner, R.D. (2000) Interhemispheric interaction during childhood: II. Children with early-treated phenylketonuria. *Developmental Neuropsychology*, 18, 53-71.
- Banich, M.T.** & Brown, W.S. (2000) A lifespan perspective on interaction between the cerebral hemispheres. *Developmental Neuropsychology*, 1-10.
- Banich, M.T.**, Milham, M.P., Atchley, R.A, Cohen, N.J, Webb, A., Wszalek, T., Kramer, A.F., Liang, Z.-P., Barad, V., Gullett, D., Shah, C., & Brown, C. (2000) Prefrontal regions play a predominant role in imposing an attentional "set": Evidence from fMRI. *Cognitive Brain Research*, 10, 1-9.
- Weissman, D.H., **Banich, M.T.**, & Puente, E.I. (2000) An unbalanced distribution of inputs across the hemispheres facilitates interhemispheric interaction. *Journal of the International Neuropsychological Society*, 6, 313-321.
- Banich, M.T.** & Weissman, D.H. (2000) One of twenty questions for the twenty-first century: How do brain regions interact and integrate information? *Brain & Cognition*, 42, 29-32.
- Compton, R.J., Heller, W., **Banich, M.T.**, Palmieri, P.A. & Miller, G.A. (2000) Responding to threat: Hemispheric asymmetries and interhemispheric processing. *Neuropsychology*, 14(2), 254-264.
- Weissman, D.H. & **Banich, M.T.** (2000) The cerebral hemispheres cooperate to perform complex but not simple tasks. *Neuropsychology*, 14 (1), 41-59.
- Kramer, A.F., Hahn, S. Cohen, N.J., **Banich, M.T.**, McAuley, E., Harrison, C., Chason, J., Vakil, E., Bardell, L. & Colcombe, A. (1999) Ageing, fitness and neurocognitive function. *Nature*, 400, 418-419.
- Weissman, D.H. & **Banich, M.T.** (1999) Global-local interference modulated by communication between the hemispheres. *Journal of Experimental Psychology: General*, 128, 283-308.

- Banich, M.T.** & Federmeier, D.K. (1999) Categorical and metric spatial processes distinguished by task demands and practice. *Journal of Cognitive Neuroscience*, 11, 153-166.
- Kerns, J.G., Berenbaum, H., Barch, D.M., **Banich, M.T.**, Stolar, N. (1999) Word production in schizophrenia and its relationship to positive symptoms. *Psychiatry Research*, 87, 29-37.
- Banich, M.T.** (1998) The missing link: The role of interhemispheric interaction in attentional processing. *Brain and Cognition*, 36, 128-157.
- Banich, M.T.** (1998) Integration of information between the cerebral hemispheres. *Current Directions in Psychological Science* 7, 32-37.
- Banich, M.T.** & Heller, W. (1998) Evolving perspectives on lateralization of function. *Current Directions in Psychological Science* 7, 1-2.
- Banich, M.T.** & Heller, W. (1998) Special Guest Editors: "Lateralization of function". *Current Directions in Psychological Science* 7(1).
- Belger, A. & **Banich, M.T.** (1998) Costs and benefits of integrating information between the cerebral hemispheres: A computational perspective. *Neuropsychology*, 12, 380-398.
- Banich, M.T.** & Shenker, J. (1994) Investigations of interhemispheric processing: Methodological considerations. *Neuropsychology*, 8(2), 263-277.
- Banich, M.T.** & Shenker, J. (1994) Dissociations in memory for item identity and item frequency: Evidence from hemispheric interactions. *Neuropsychologia*, 32, 1179-1194.
- Stokes, A.F., Belger, A., **Banich, M.T.** & Bernadine, E. (1994) Effects of alcohol and chronic aspartame ingestion upon performance in aviation relevant cognitive tasks. *Aviation, Space, and Environmental Medicine*, 65, 7-15
- Stolar, N., Berenbaum, H., **Banich, M.T.**, & Barch, D. (1994) Neuropsychological correlates of alogia and affective flattening in schizophrenia. *Biological Psychiatry*, 35, 164-172.
- Banich, M.T.** & Noll, E. (1993) Target detection in right and left hemispace: Effects of positional pre-cuing and type of background. *Neuropsychologia*, 31, 525-546.
- Banich, M.T.**, Stolar, N., Heller, W., & Goldman, R. (1992) A deficit in right-hemisphere performance after induction of a depressed mood. *Neuropsychiatry, Neuropsychology, and Behavioral Neurology*, 5, 20-27.
- Banich, M.T.** Elledge, V.C., & Stolar, N. (1992) Variations in lateralized processing among right-handers: Effects on patterns of cognitive performance. *Cortex*, 28, 273-288.
- Banich, M.T.**, & Karol, D. (1992) The sum of the parts does not equal the whole: Evidence from bihemispheric processing. *Journal of Experimental Psychology: Human Perception and Performance*, 18, 763-784.
- Belger, A., & **Banich, M.T.** (1992) Interhemispheric interaction affected by computational complexity. *Neuropsychologia*, 30, 923-931.
- Banich, M.T., & Belger, A. (1991) Inter- versus intrahemispheric concordance of judgments in a non-explicit memory task. *Brain and Cognition*, 15, 131-137.
- Stokes, A., Belger, A., **Banich, M.T.**, & Taylor H. (1991) Effects of acute aspartame and acute alcohol ingestion upon the cognitive performance of pilots. *Aviation, Space, and Environmental Medicine*, 62, 648-653.
- Stokes, A., **Banich, M.T.**, & Elledge, V.C. (1991) Testing the tests - An empirical evaluation of screening tests for the detection of cognitive impairment in aviators. *Aviation, Space, and Environmental Medicine*, 62, 783-788.
- Banich, M.T.**, & Belger, A. (1990) Interhemispheric interaction: How do the hemispheres divide and conquer a task? *Cortex*, 26, 77-94.
- Banich, M.T.**, Goering, S., Stolar, N., & Belger, A. (1990) Interhemispheric processing in left- and right-handers. *International Journal of Neuroscience*, 54, 197-208.

- Banich, M.T.**, Levine, S.C., Kim, H., & Huttenlocher, P. (1990) The effects of developmental factors on IQ in hemiplegic children. *Neuropsychologia*, 28, 35-47.
- Banich, M.T.**, Stokes, A., & Elledge, V. C. (1989) Neuropsychological evaluation of aviators: A review. *Aviation, Space and Environmental Medicine*, 60, 361-366.
- Banich, M.T.**, Heller, W., & Levy, J. (1989) Aesthetic preference and picture asymmetries. *Cortex*, 25, 187-196.
- Levine, S.C., **Banich, M.T.**, & Koch-Weser, M. (1988) Face recognition: A general or specific right hemisphere capacity? *Brain and Cognition*, 8, 303-325.
- Levine, S.C., Huttenlocher, P., **Banich, M.T.**, & Duda, E. (1987) Factors affecting cognitive functioning in hemiplegic children. *Developmental Medicine and Child Neurology*, 29, 27-35.
- Levine, S.C., & **Banich, M.T.** (1984) Some comments on possible effects of forced report order on tachistoscopic recognition of bilaterally presented stimuli: A response to Young and Ellis. *Brain and Language*, 21, 364-374.
- Levine, S.C., **Banich, M.T.**, & Koch-Weser, M. (1984) Variations in patterns of lateral asymmetry among dextrals. *Brain and Cognition*, 3, 317-334.
- Levy, J., Heller, W., **Banich, M.T.**, & Burton, L.A. (1983) Are variations among right-handed individuals in perceptual asymmetries caused by characteristic arousal differences between hemispheres? *Journal of Experimental Psychology: Human Perception and Performance*, 9, 329-359.
- Levy, J., Heller, W., **Banich, M.T.**, & Burton, L.A. (1983) Asymmetries of perception in free viewing of chimeric faces. *Brain and Cognition*, 2, 404-419.
- Levine, S.C., & **Banich, M.T.** (1982) Lateral asymmetries in the naming of words and corresponding line drawings. *Brain and Language*, 17, 34-45.

Major Grant and Research Support:

As P.I. or M.P.I.

P50 HD027802	P.I. Banich; Center P.I., Willcutt	10/1/2023 – 6/30/2028
<i>Differential Diagnosis in Learning Disability: Project III Neuroimaging</i>		
R01MH12542	Banich/Lewis-Peacock (MPIs)	8/1/2022 – 7/31/2026
<i>Removing and Manipulating Emotional Information in Working Memory: Cognitive and Neural Representations.</i>		
R56MH12542	Banich/Lewis-Peacock (MPIs)	8/1/2021 – 7/31/2022
<i>Removing and Manipulating Emotional Information in Working Memory: Cognitive and Neural Representations</i>		
U01D1051018	Banich/Friedman (site MPIs)	4/15/2020 – 3/31/2027
<i>14/21 ABCD-USA Consortium: Research Project Site at CU Boulder</i>		
P50 HD027802	P.I. Banich; Center P.I., Willcutt	10/1/2017 – 6/30/2022
<i>Differential Diagnosis in Learning Disability: Project III Functional and Anatomical investigations of Domain-specific and Domain-General Alterations in Neural Systems underlying Math & Reading Difficulty</i>		
U01 DA041120	Banich/Hewitt (site MPIs)	12/01/2015 – /5/13/2020
<i>ABCD-USA Consortium: Twin Research Project</i>		
R01 MH105501	Banich/Hankin (MPIs)	8/17/2015 – 5/22/2019
<i>Prefrontal Mechanisms of Selection: Disrupted in Internalizing Psychopathology</i>		
R21 MH108848	Banich/Lewis-Peacock (MPIs)	6/20/2016 – 3/31/2019
<i>Clearing the Contents of Working Memory: Mechanisms & Representations</i>		

P50 MH079485	Banich (PI)	4/22/08 – 01/31/13
<i>Interdisciplinary Behavioral Science Center: Determinants of Executive Function and Dysfunction</i>		
R03 HD0626001	Banich (PI)	1/15/10 – 12/31/12
<i>Cognitive and Brain Processes in Individuals with Childhood Interpersonal Trauma</i>		
10 IHA 12614 (Colo DHS)	Banich (PI)	7/01/10 – 6/30/13
<i>Executive Dysfunction and Suicidal Behavior: An Examination of Veterans with Traumatic Brain Injury, Post-Traumatic Stress Disorder or Both</i>		
R01 MH070037	Banich (PI)	6/1/04 – 5/31/10
<i>Brain Mapping and Genetics of Executive Function in ADHD</i>		
MacArthur Foundation	Banich (site PI)	7/1/03 – 12/31/07
<i>Culpability Study</i>		
NSF 0518699 SBE	Banich (PI)	10/1/06 – 9/30/08
<i>Leveraging human generalization abilities for optimal learning</i>		
R01 MH54217	Banich (PI)	3/1/97 – 2/28/01
<i>Attentional capacity: Modulation by cerebral dynamics</i>		

As Co-I (last 10 years)

Coleman Institute for Cognitive Disabilities, Technology Translational Research and Development Award,		
	Welle, Kramer (P.I.s)	9/2024-8/2026
<i>Creating a Cognitive Neuroprosthesis for Enhanced Executive Function</i>		
R61 DC021924	Kramer, Denman, Paulk (MPIs)	08/2024 – 07/2027
<i>Neocortical microarchitecture of executive function using large-scale intracranial electrophysiology</i>		
R01 MH063207	Hewitt (PI)	12/1/13 – 11/30/18
<i>Neural Substrates of Executive Function: An fMRI Twin Study</i>		
R37 AG013038	Seals (PI)	4/01/14 – 03/31/19
<i>Nitrite Supplementation for Improving Physiological Function in Older Adults</i>		
R01 AG043452	Bryan (PI)	4/01/14 – 03/31/19
<i>Enhancing function in later life: Exercise and functional network connectivity</i>		
P60 DA011015	Young (PI)	5/01/09 – 2/28/14
<i>Center on Antisocial Drug Dependence: The Genetics of HIV Risk Behaviors</i>		
R01 DA027748	Tanabe (PI)	9/01/09 – 8/31/14
<i>Neural Correlates of Avoidance Learning in Substance Abuse</i>		
R01 MH094650	Mittal (PI)	6/01/11 – 2/28/16
<i>Frontal-Subcortical Development, Movement Abnormalities, and Risk for Psychosis</i>		
R24 075460	Petrill (PI)	9/1/12 – 8/31/16
<i>Neurobiological Underpinnings of Math and Reading Comorbidity: A Twin Study</i>		
R01 DA009842	Crowley (PI)	9/05/06 – 4/30/11
<i>Substance Dependent Adolescents: Imaging Risk-Taking</i>		
R21 DA024104	Tanabe (PI)	6/15/08 – 5/31/10
<i>Frontal Striatal Activity During Decision Making in Substance Abuse</i>		

Teaching:

Undergraduate:	Cognitive Neuroscience, Biological Psychology, Honors Seminars, Translational Cognitive Neuroscience
Graduate Seminars:	Using ABCD Data to Answer Scientific Questions; Translational Cognitive Neuroscience; Functional Magnetic Resonance

Imaging in Cognitive Neuroscience; Executive Function, Higher
Order Vision and Attention; Higher Order Cognition

Committee Chair for Doctoral Dissertations:

Neal Stolar (1992)

The association of symptoms in schizophrenia and dysfunction of specific brain regions

Aysenil Belger (1993)

Influences of hemispheric specialization and interaction on task performance

Erika Noll (1996)

Target detection in left and right hemispace

Joel Shenker (1997)

Neurology of attention: Interhemispheric processing provides unique, dynamic, and cognitively-sensitive neural resources in the Stroop task

Alessandra Passarotti (1999)

Insulation of processes across the hemispheres modulates attentional processes

Daniel Weissman (1999)

The cerebral hemispheres cooperate to perform complex but not simple tasks

Kevin Spencer (1999)

Hemispheric mechanisms of visuospatial selective attention

Michael Milham (2002)

An fMRI Analysis of Dorsolateral Prefrontal Cortex's Involvement in Attentional Control

Brendan Depue (2009)

Controlled Memory Suppression: Evidence from Behavioral and Neuroimaging Paradigms and Clinical Populations

Anson Whitmer (2009)

The Cognitive and Neural Mechanisms of Rumination

Amanda Hutchinson (2009)

Corpus Callosum Morphology and function in Attention Deficit Hyperactivity Disorder and the relationship between the corpus callosum and cognitive functioning in healthy adults.

Kristen Mackiewicz (2011)

Cognitive and Brain Processes in Young Adults with a History of Childhood Interpersonal Trauma

Hannah Synder (2012)

Choosing Our Words: Neural Mechanisms Supporting Cognitive Control During Language Processing

Roselinde Kaiser (2012)

Depression and Cognitive Control in the Face of Negative Information or Stressors

Andrew Reineberg (2016)

On the Neural Basis of Individual Differences in Executive Function: A Series of Studies of the "Resting" Brain

Alejandro De La Vega (2016)

Large Scale Meta-analytic Cartography of Human Frontal Cortex

Harry Smolker (2020)

Neuroanatomical Correlates of a Bifactor Model of Internalizing Psychopathology

David Caha (2021)

The Relationship between Internalizing Psychopathology and Poor Sleep: Stability and the Influence of the COVID-19 Pandemic and Stress in Youth and Adult women

Louisa Smith (2024)

Functional Connectivity Patterns of the Fronto-Parietal and Cingulo- Opercular Networks Demonstrate Distinct Associations with Individual Differences in Cognitive Control During Early Adolescence

Boman Groff (2024)

Suppressing information in working memory reduces item-specific information but retains category-general information: Evidence from behavioral and fMRI experiments

Former Postdoctoral Advisees

Rebecca Compton, Ruth Ann Atchley, Xun Liu, Gregory Burgess, Joseph Dagher, Detre Godinez, Jessica Andrews-Hanna, Brendan Depue, Joseph Orr, Kai Wang, Daniel Leopold, Hyojoeng Kim, Megan Patterson, Harry Smolker

Current Predoctoral Advisees

Irena Kesselring, Reese Lavers, Jacob De Rosa, Brynn Paulsen

Reviewing:

Granting agencies:

Ad hoc: NIH, including proposals submitted to NIMH, NIE, NIDA, NINDS, NICHD, NIAAA; National Science Foundation, Natural Sciences and Engineering Research Council of Canada; Israel Science Foundation; Rockefeller Foundation

Journals:

Ad hoc: *Brain & Cognition, Cerebral Cortex, Cognition and Emotion, Cognitive Affective and Behavioral Neuroscience, Cognitive Brain Research, Cortex, Current Trends in Psychological Science, Developmental Neuropsychology, Developmental Psychology, Experimental Brain Research, Human Brain Mapping, Journal of Experimental Psychology: General, Journal of Experimental Psychology: Human Perception and Performance, Journal of the International Neuropsychological Society, Journal of Neuroscience, Nature Neuroscience, NeuroImage, Neuropsychology, Proceedings of the National Academy of Sciences, Proceedings of the National Academy of Sciences Nexus, Psychological Science, Vision Research*

University & Professional Service:

Chair, Space Committee, Dept. of Psychology & Neuroscience, 2024-2025

Member, Diversity, Equity and Inclusion Committee, Dept. of Psychology & Neuroscience, 2023-2024

Chair, Faculty Search Committee, Joint Departmental and Institute Faculty, 2019-2020, 2021-2022

Chair, Search Committee, Director of the Institute for Behavioral Genetics, Fall 2021

Chair, Review Committee, Brain, Biology & Behavior Center, University of Nebraska Lincoln 2021

Member, External Advisory Committee, The Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana- Champaign, 2019

Member, Campus-wide Program Review Committee 2016

Chair, Review Committee, Psychology Program, Georgia Institute of Technology, 2013

Member, Review Committee, External Advisory Panel, Psychology Department, Texas A&M, 2013

Member, Industry Collaboration Advisory Committee, 2013 – 2014

Member, Research Computing /Cyberinfrastructure Committee 2011 – 2014

Member, Program Committee for Annual Meeting, Cognitive Neuroscience Society 2011 – 2013

Member, Faculty Search Committee, Clinical Program, 2010 – 2011; 2011 – 2012

Member, PRP task force University of Colorado Boulder 2005 – 2006
 Chair, Faculty Search Committee, Institute of Cognitive Science, 2005 & 2006
 Executive Committee of the Institute for Cognitive Science 2003 – 2004
 Chair, Cognitive Program, Dept. of Psychology 2003 – 2004
 Member, Executive Committee, Dept. of Psychology 2000- 2002
 Chair, Institutional Review Board for the Protection of Human Subjects, 1996 – 1998
 Chair, Miller Committee, (for planning campus-wide colloquia), 1994 – 1998
 Member, Search Committee for the Head of the Department of Psychology, 1995
 Member, Miller Committee, Center for Advanced Study, 1991 – 1994
 Member, Equal Employment Opportunity Committee, College of Liberal Arts and Sciences, 1994 – 1995
 Member, Program Advisory Committee, The Beckman Institute 1994 – 1997
 Advisory Board, Program on Women, Information Technology and Scholarship, Center for Advanced Study, 1991 – 1994
 Member, Institutional Review Board for the Protection of Human Subjects, 1991 – 1994
 Member, Search Committee for the Director of the Beckman Institute, 1992 – 1993

Selected Invited Talks and Presentations:

Keynote Speaker, The Association for Research in Memory, Attention, Decision-making, Imaging, Language, Learning and Organization (ARMADILLO). Texas A&M, College Station, TX, Oct. 18, 2024.

Stop thinking about it!: Cognitive and neural mechanisms of the removal and inhibition of information in memory.

Invited Talk, Collaborative Research Centre (CRC): Volition and Cognitive Control, Technical University of Dresden, May 7, 2024

Controlling One's Thoughts: Neural Systems and Individual Differences

Developmental Affective Neuroscience Symposium, University of Pittsburgh, (Nov. 10, 2023)

Associations of Brain Morphology with Individual Differences in Emotional Processing and Experience related to Internalizing Psychopathology in Youth.

Chaucer Club, University of Cambridge, UK (April 27, 2023)

Neural mechanisms and individual differences in the removal of information from working memory

30th Annual Meeting of the Cognitive Neuroscience Society (March 26, 2023) Symposium

Organizer and Presenter

"Stop Thinking about It!": Cognitive and Neural Mechanisms of the Removal and Inhibition of Information in Memory.

Presentation to the Advisory Board of the Social, Behavioral, and Economic Sciences Directorate, National Science Foundation, Washington, D.C. (December 17, 2022)

Functional Neuroimaging: Opportunities and Challenges

Beckman Institute; University of Illinois at Urbana-Champaign, (April 4, 2022)

Neural bases of mental control: Insights from neuroimaging and beyond

Ohio State University, Center for Cognitive and Behavioral Brain Imaging (December 9, 2021)

"Stop thinking about it"! Neural and Cognitive Mechanisms for Actively Removing Information from Working Memory

Society for Research in Psychopathology, Invited Address (September 25, 2021)

Cognitive Control over Internal Thought and its Relevance to Psychopathology

Northwestern University, Department of Psychology (April 9, 2021)

"Stop thinking about it"! Neural and Cognitive Mechanisms for Actively Removing Information from Working Memory

International Neuropsychological Symposium, Vietri sul Mare, Italy (June 29, 2019)

Inhibitory Control over Information in Working Memory

University of Texas Dallas, Dean's Colloquium Series, School of Behavioral & Brain Sciences (March 8th, 2019)

Clearing the Contents of Working Memory

CU Boulder, Presentation to Alumni Board of Advisors, (July 19, 2018)

The Teen Brain

CU Director's Club Summer Conference, Vail Colorado (June 15, 2018)

The Teen Brain: What every Parent (and Teenager) Needs to Know

Denver University, Dept. of Psychology (April 20, 2018)

The Development of Executive Abilities: Perspectives from behavioral & neuroimaging studies

Sylvius Lecture, University of Leiden, Leiden, Netherlands (March 26, 2018)

Individual differences in Anatomical and Functional Aspects of Brain Connectivity that Influence Components of Executive Function

Dresden Technical University, Dresden Germany; Dresden Spring School (March 20, 2018)

The Development of Executive Abilities: Perspectives from Behavior and Neuroimaging

University of Texas Austin, Dept. of Psychology (March 2, 2018)

Individual Differences in Anatomical and Functional Aspects of Brain Connectivity that Influence Components of Executive Function

Texas A&M, Department of Psychology (March 1, 2018)

Inhibitory Control as a Critical Component of Executive Function? Conceptual Formulations and Neurobiological Mechanisms

CU Next, Los Angeles, California (Feb 24, 2018)

Understanding the Teen Brain

G. Stanley Hall Keynote Lecture, New England Psychological Association, William James College, Newton, MA (Oct. 21, 2017)

Brain and Mind: Core Concepts and Emerging Ideas in Cognitive Neuroscience

University of Verona, Verona, Italy, Department of Neuroscience, Biomedicine and Movement (October 5, 2017)

Cognitive Control over Perceptual and Working Memory Representations of Visual Information

University of Padova, Padova Italy, Master Course in Cognitive Neuroscience and Clinical Neuropsychology, Neuroscience Center (October 3, 2017)

Individual Differences in the Neural Substrates that Support Factors underlying Executive Function

University of Padova, Padova, Italy, Master Course in Cognitive Neuroscience and Clinical Neuropsychology, Department of General Psychology (October 2, 2017)

The Development of Executive Abilities: Perspectives from Behavior and Neuroimaging

International Conference "Cognitive Neuroscience of Executive Function" University of Padova, Padova Italy (Sept. 29, 2017)

Inhibitory Control as a Critical Component of Executive Function? Conceptual Formulations and Neurobiological Mechanisms

Starkey Duncan Memorial Distinguished Alumni Lecture, University of Chicago, Department of Psychology, (Oct. 6, 2016)

Talking to each Other: How Connectivity between Brain Regions influences Processing Capacity and Cognitive Control

Distinguished Speaker, Tufts University Annual Psychology/Biology Lecture (Feb. 22, 2013)

Neural Systems involved in Executive Function and Cognitive Control: Translational Research