



# Richard H. Melloni, Jr., Ph.D.

## Curriculum Vitae

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### Education

- 1993 Ph.D. Biomedical Sciences, University of Massachusetts Medical School, Worcester, MA
- 1989 M.A. Psychology and Neuroscience, University of Hartford, West Hartford, CT
- 1985 B.S. Biochemistry; Psychology minor, University of New Hampshire, Durham, NH

### Professional Experience

- 2012-present Professor, Department of Psychology and Program in Behavioral Neuroscience, Northeastern University, Boston, MA
- 2004-2012 Associate Professor, Department of Psychology and Program in Behavioral Neuroscience, Northeastern University, Boston, MA
- 1999-2004 Assistant Professor, Department of Psychology and Program in Behavioral Neuroscience, Northeastern University, Boston, MA
- 1995-1999 Assistant Professor, Department of Psychiatry and Program in Neuroscience, University of Massachusetts Medical School, Worcester, MA
- 1994-1995 Postdoctoral Fellow, Department of Psychiatry, University of Massachusetts Medical Center, Worcester, MA
- 1993-1994 Postdoctoral Scientist, Department of Neurology, University of Massachusetts Medical Center, Worcester, MA
- 1987-1993 Doctoral Graduate Studies, Departments of Cellular and Molecular Biology and Neurology, University of Massachusetts Medical School, Worcester, MA
- 1985-1987 Master's Graduate Studies, Department of Psychology, University of Hartford, West Hartford, CT
- 1985-1987 Research Assistant, Department of Pathology, University of Connecticut Health Science Center, Avon, CT

### Appointments

- 2021-present Vice Chair, Institutional Animal Care and Use Committee, Northeastern University
- 2019-present Full Professor Advisory Committee, College of Science, Northeastern University
- 2005-2021 Chair, Institutional Animal Care and Use Committee, Northeastern University
- 2003-2005 Member, Institutional Animal Care and Use Committee, Northeastern University
- 2010-2017 Director, Program in Behavioral Neuroscience, Northeastern University
- 2010-2012 Undergraduate Curriculum Committee, College of Science, Northeastern University
- 2006-2008 Director, Program in Behavioral Neuroscience, Northeastern University
- 2003-2006 Assistant Director, Program in Behavioral Neuroscience, Northeastern University

## Honors and Awards

- 2017 Program Director Award, Behavioral Neuroscience Program, College of Science, Northeastern University, Boston, MA
- 2013 Aggression and anxiety during exposure predict behavioral responding during withdrawal from adolescent anabolic-androgenic steroid exposure in Syrian hamsters. *Society for Neuroscience Press Book*, pp. 632-633.
- 2013 Nominated for the University Excellence in Teaching Award, Northeastern University, Boston, MA
- 2012 Community Service Award, Dr. Martin Luther King Community Celebration Committee, South Coast Boys and Girls Club of America, New Bedford, MA
- 2012 Nominated for the University Excellence in Teaching Award, Northeastern University, Boston, MA
- 2004 Community Ordinary Hero Award, Community Service Learning Program, Wareham School Department, Wareham, MA
- 2004 Southcoast's Wareham Man of the Year, The Standard-Times and SouthCoastToday.com, New Bedford, MA
- 2003 Nominated for the University Excellence in Teaching Award, Northeastern University, Boston, MA
- 2002 Excellence in Teaching Award, Psychology Department, Northeastern University, Boston, MA
- 1997 Chronic anabolic steroid exposure during adolescence stimulates vasopressin-mediated aggression in hamsters. *Society for Neuroscience Press Book*, pp. 187-190.
- 1997 Chronic cocaine exposure during adolescence elevates offensive aggression in adult golden hamsters. *Society for Neuroscience Press Book*, pp. 321-324
- 1996 Adolescent anabolic steroids, vasopressin, and aggression in golden hamsters. *Society for Neuroscience Press Book*, pp. 451-453.

## Publications

84. Ricci, L.A. and Melloni, R.H., Jr. (2021) Plasticity in the anterior hypothalamic GABA neural system correlates with aggression and anxiety during withdrawal from adolescent exposure to anabolic steroids., In Preparation.
83. Ricci, L.A. and Melloni, R.H., Jr. (2021) The Syrian Hamster (*Mesocricetus Auratus*) as an Animal Model of Anabolic-Androgenic Steroid Abuse: Utility and Limitations. *Substance Abuse and Rehabilitation, Invited Review* Under Review.
81. Lee, T.J., Zanello, A.F., Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2021) Valproate selectively suppresses adolescent anabolic/androgenic steroid-induced aggressive behavior: Implications for a role of hypothalamic GABA neural signaling. *Behavioral Pharmacology*. 2021 Feb 15. doi: 10.1097/FBP.0000000000000616. Online ahead of print. PMID: 33595952
80. Einberger, C., Puckett, A., Ricci, L.A., and Melloni, R.H., Jr. (2020) Contemporary pharmacotherapeutics and the management of aggressive behavior in an adolescent animal model of maladaptive aggression. *Clinical Psychopharmacology and Neuroscience*, 18; 188-202.
79. Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2020) Serotonin type-3 receptors differentially modulate anxiety and aggression during withdrawal from adolescent anabolic steroid exposure. *Hormones and Behavior*, 119:104650. doi: 10.1016/j.yhbeh.2019.104650.

78. Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2016) Vasopressin differentially modulates aggression and anxiety in hamsters administered anabolic steroids. *Hormones and Behavior*, 86:55-63.
77. Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2016) Anabolic steroids alter the physiological activity of aggression circuits in the lateral anterior hypothalamus. *Neuroscience*, 315:1-17.
76. Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2015) Aggression and anxiety in adolescent hamsters administered anabolic/androgenic steroids: A role for serotonin type-3 receptors. *Pharmacology, Biochemistry and Behavior*, 134; 85-91.
75. Ricci, L.A., Morrison, T.R., and Melloni, R.H., Jr. (2015) Anabolic/androgenic steroid exposure during adolescence or adulthood differentially modulate aggression during exposure and anxiety during withdrawal in Syrian hamsters. *Hormones and Behavior*, 69, 132-138.
74. Morrison, T.R. and Melloni, R.H., Jr. (2015) Dopamine D2 receptors act upstream of vasopressin in the latero-anterior hypothalamus to modulate anabolic/androgenic steroid-induced offensive aggression. *Behavioral Neuroscience*, 129; 197-204.
73. Morrison, T.R., Ricci, L.A., and Melloni, R.H., Jr. (2014)  $\gamma$ -Aminobutyric neural signaling in the latero-anterior hypothalamus modulates aggressive behavior in adolescent anabolic/androgenic steroid-treated hamsters. *Behavioral Pharmacology*, 25, 673-683.
72. Ricci, L.A. and Melloni, R.H., Jr. (2013) Preclinical investigations into the relationship between adolescent SSRI exposure and aggressive behavior: Response to commentary by Rubin and Walkup (2012). *Behavioral Neuroscience*, 127, 130-132.
71. Ricci, L.A., Summers, C.H., Larson, E.T., O'Malley, D. and Melloni, R.H., Jr. (2013) Development of aggressive phenotypes: Interactions of age, experience, and social status. *Animal Behavior*, 86, 245-242.
70. Schwartzer, J.J., Ricci, L.A., and Melloni, R.H., Jr. (2013) Prior fighting experience increases aggression in Syrian hamsters: Implications for a role of dopamine in the winner effect. *Aggressive Behavior*, 39, 290-300.
69. Ricci, L.A., Morrison, T.R., and Melloni, R.H., Jr. (2013) Adolescent anabolic-androgenic steroids: Aggression and anxiety during exposure predict behavioral responding during withdrawal in Syrian hamsters. *Hormones and Behavior*, 64, 770-780.
68. Ricci, L.A. and Melloni, R.H., Jr. (2012) Repeated fluoxetine administration during adolescence stimulates aggressive behavior and alters serotonin and vasopressin neural development in hamsters. *Behavioral Neuroscience*, 126, 640-653.
67. Ricci, L.A., Morrison, T.R., and Melloni, R.H., Jr. (2012) Serotonin modulates anxiety-like behavior during withdrawal from adolescent anabolic steroid exposure in hamsters (*Mesocricetus auratus*). *Hormones and Behavior*, 62, 569-578.
66. Carrillo, M., Ricci, L.A., and Melloni, R.H., Jr. (2011) Developmental and withdrawal effects of adolescent anabolic steroid exposure on the glutaminergic neural system in hamsters (*Mesocricetus auratus*). *Behavioral Neuroscience*, 125, 452-64.
65. Carrillo, M., Ricci, L.A., and Melloni, R.H., Jr. (2011) Glutamate-vasopressin interactions and the neurobiology of adolescent anabolic steroid-induced offensive aggression. *Neuroscience*, 185, 85-96.
64. Carrillo, M., Ricci, L.A., and Melloni, R.H., Jr. (2011) Glutamate and the aggression neural circuit in adolescent anabolic steroid-treated Syrian hamsters (*Mesocricetus auratus*). *Behavioral Neuroscience*, 125, 753-763.
63. Melloni, R.H., Jr. and Ricci, L.A. (2010) Adolescent exposure to anabolic/androgenic steroids and the neurobiology of offensive aggression: A hypothalamic neural model based on findings in pubertal Syrian hamsters. *Hormones and Behavior*, 58, 177-91.

62. Carrillo, M., Ricci, L.A., Schwartzter, J.J., and Melloni, R.H., Jr. (2010) Immunohistochemical characterization of 5HT3A receptors in the Syrian hamster brain. *Brain Research*, 1329, 67-81.
61. Schwartzter, J.J. and Melloni, R.H., Jr. (2010) Anterior hypothalamic dopamine D2 receptors modulate adolescent AAS-induced offensive aggression. *Behavioral Pharmacology*, 21, 314-22.
60. Schwartzter, J.J. and Melloni, R.H., Jr. (2010) Dopamine activity in the lateral anterior hypothalamus modulates AAS-induced aggression through D2 but not D5 receptors. *Behavioral Neuroscience*, 124, 645-55.
59. Ricci, L.A., Schwartzter, J.J., and Melloni, R.H., Jr. (2009) Alterations in the anterior hypothalamic dopamine system adolescent, anabolic/androgenic steroid treated hamsters. *Hormones and Behavior*, 55, 348-55.
58. Schwartzter, J.D., Morrison, R., Ricci, L.A., and Melloni, R.H., Jr. (2009) Paliperidone suppresses the development of the aggressive phenotype in a developmentally sensitive animal model of escalated aggression. *Psychopharmacology*, 203, 653-63.
57. Schwartzter, J.J., Ricci, L.A., and Melloni, R.H., Jr. (2009) Adolescent anabolic/androgenic steroid exposure alters lateral anterior hypothalamic serotonin (2A) receptors in aggressive male hamsters. *Behavioral Brain Research*, 199, 257-262.
56. Carrillo, M, Ricci, L.A.,and Melloni, R.H., Jr. (2009) Adolescent anabolic steroids reorganize the glutamatergic neural circuitry in the hypothalamus. *Brain Research*, 1249, 118-127.
55. Carrillo, M., Ricci, L.A., Coppersmith, G., and Melloni, R.H., Jr. (2009) The effect of increased serotonin neurotransmission on aggression: A critical meta-analytical review of preclinical studies. *Psychopharmacology*, 205, 349-68.
54. Schwartzter, J.J., Ricci, L.A., and Melloni, R.H., Jr. (2009) Interactions between the dopaminergic and GABAergic neural systems in the lateral anterior hypothalamus of aggressive, AAS-treated hamsters. *Behavioral Brain Research*, 203, 15-22.
53. Schwartzter, J.D., Connor, D.F, Morrison, R., Ricci, L.A., and Melloni, R.H., Jr. (2008) Repeated risperidone administration during puberty prevents the generation of the aggressive phenotype in a developmentally immature animal model of escalated aggression. *Physiology and Behavior*, 95, 176-181.
52. Ricci, L.A., Grimes, J.M., and Melloni, R.H., Jr. (2007) Lasting changes in neuronal activation patters in select forebrain regions of aggressive, adolescent anabolic/androgenic steroid-treated hamsters. *Behavioral Brain Research*, 176, 344-352.
51. Ricci, L.A., Connor, D.F., Morrison, R, and Melloni, R.H., Jr. (2007) Risperidone exerts potent anti-aggressive effects in a a developmentally immature animal model of escalated aggression. *Biological Psychiatry*, 62, 218-225.
50. Grimes, J.M., Ricci, L.A., and Melloni, R.H., Jr. (2007) Alterations in anterior hypothalamic vasopressin, but not serotonin, correlate with the temporal onset of aggressive behavior during repeated adolescent anabolic/androgenic steroid treatment in hamsters (*Mesocricetus auratus*). *Behavioral Neuroscience*, 121, 941-948.
49. Fischer, S.G., Ricci, L.A., and Melloni, R.H., Jr. (2007) Repeated anabolic/androgenic steroid exposure during adolescence alters phosphate-activated glutaminase and glutamate receptor 1 (GluR1) subunit immunoreactivity in hamster brain: Correlation with offensive aggression. *Behavioral Brain Research*, 180, 77-85.
48. Larson, E.T., O'Malley, D.M. and Melloni, R.H., Jr. (2006) Aggression and vasotocin are associated with dominant-subordinate relationships in zebrafish. *Behavioral Brain Research*, 167, 94-102.

47. Grimes, J.M., Ricci, L.A., and Melloni, R.H., Jr. (2006) Plasticity in anterior hypothalamic vasopressin correlates with aggression during anabolic/androgenic steroid withdrawal in hamsters. *Behavioral Neuroscience*, 120, 115-24.
46. Ricci, L.A., Rasakham, S., Grimes, J.M., and Melloni, R. H., Jr. (2006). Serotonin type-1A receptor activity and expression modulate adolescent anabolic/androgenic steroid-induced aggression in hamsters. *Pharmacology, Biochemistry and Behavior*, 85, 1-11.
45. Grimes, J.M. and Melloni, R.H., Jr. (2006) Prolonged alterations in the serotonin neural system following the cessation of anabolic/androgenic steroid exposure in hamsters (*Mesocricetus auratus*). *Behavioral Neuroscience*, 120, 1242-51.
44. Ricci, L.A., Knyshevski, I., and Melloni, R.H., Jr. (2005) Serotonin type-3 receptors stimulate offensive aggression in Syrian hamsters. *Behavioral Brain Research*, 156, 19-29.
43. Ricci, L.A., Grimes, J.M., Knyshevski, I., and Melloni, R.H., Jr. (2005) Repeated cocaine exposure during adolescence alters glutamic acid decarboxylase-65 (GAD65) immunoreactivity in hamster brain: Correlation with offensive aggression. *Brain Research*, 1035, 131-138.
42. Knyshevski, I., Connor, D.F., Ricci, L.A., and Melloni, R.H., Jr. (2005) Persistent activation of select forebrain regions in aggressive, adolescent cocaine-treated hamsters. *Behavioral Brain Research*, 159, 277-286.
41. Knyshevski, I., Ricci, L.A., McCann, T.E., and Melloni, R.H., Jr. (2005) Serotonin type-1A receptors modulate adolescent cocaine-induced offensive aggression in hamsters. *Physiology and Behavior*, 85, 167-176.
40. Jackson D., Burns, R., Trksak, G., Simeone, B., DeLeon, K.R., Harrison R.J., and Melloni, R.H., Jr. (2005) Anterior hypothalamic vasopressin modulates the aggression-stimulating effects of adolescent cocaine exposure in Syrian hamsters. *Neuroscience*, 133, 625-633.
39. Grimes, J.M. and Melloni, R.H., Jr. (2005) Serotonin type-1B receptor activity and expression modulate the aggression-stimulating effects of adolescent anabolic steroid exposure in hamsters. *Behavioral Neuroscience*, 119, 1184-94.
38. Connor D.F., Doerfler, L.A., Volungis, A.M., Steingard, R.J., and Melloni, R.H., Jr. (2004) Aggressive behavior in abused children, (J. King and C.F. Ferris, eds.) *Annals of the New York Academy of Sciences*, New York, New York, 1008, 79-90.
37. Wommack, J.C., Salinas, A. Melloni, R.H., Jr., and Delville (2004) Behavioral and neuroendocrine adaptations to repeated stress during puberty in male hamsters. *Journal of Neuroendocrinology*, 16, 767-775.
36. Connor D.F., Steingard R.J., Cunningham J.A., Anderson J.T., and Melloni, R.H., Jr. (2004) Proactive and reactive aggression in referred children and adolescents. *American Journal of Orthopsychiatry*, 74, 129-136.
35. Ricci, L.A., Grimes, J.M. and Melloni, R.H., Jr. (2004) Serotonin type-3 receptors modulate cocaine-induced offensive aggression. *Behavioral Neuroscience*, 118, 1097-1110
34. Cunningham, J.A., Connor, D.F., Miller, K.P., and Melloni, R.H., Jr. (2003) Staff survey results and characteristics that predict assault and injury to personnel working in mental health facilities. *Aggressive Behavior*, 29, 31-40.
33. Connor, D.F., Steingard, R.J., Anderson, J.T., and Melloni, R.H., Jr. (2003) Gender differences in reactive and proactive aggression. *Child Psychiatry and Human Development*, 33, 279-294.

32. Grimes, J.M., Ricci, L.A. and Melloni, R.H., Jr. (2003) Glutamic acid decarboxylase (GAD<sub>65</sub>) immunoreactivity in aggressive, adolescent anabolic steroid treated hamsters. *Hormones and Behavior*, 44, 271-80.
31. Connor, D.F., Boone R.T., Steingard R.J., Lopez I.D., and Melloni, R.H., Jr. (2003) Psychopharmacology and aggression. II. A meta-analysis of non-stimulant medication effects on overt aggression-related behaviors in youths with serious emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 11, 157-168.
30. Connor, D.F., Glatt, S.J., Lopez, I.D., Jackson, D., and Melloni, R.H., Jr. (2002) Psychopharmacology and aggression: I. A meta-analysis of stimulant effects on overt/covert aggression related behaviors in ADHD. *Journal of American Academy of Child and Adolescent Psychiatry*, 41, 253-261.
29. Todtenkopf, M.S., Carreiras, T., Melloni, R.H., Jr., and Stellar, J.R. (2002) The dorsomedial shell of the nucleus accumbens facilitates cocaine-induced locomotor activity during the induction of behavioral sensitization. *Behavioral Brain Research*, 131, 9-16.
28. DeLeon, K.R., Grimes, J.M., Connor, D.F. and Melloni, R.H., Jr. (2002) Adolescent cocaine exposure and offensive aggression: Involvement of serotonin neural signaling and innervation in male syrian hamsters. *Behavioural Brain Research*, 133, 211-220.
27. Trzcinska, M., Bergh, J., DeLeon, K.R., Stellar, J.R. and Melloni, R.H. Jr. (2002) Chronic social stress during adolescence alters the induction, but not the expression of behavioral sensitization in hamsters. *Physiology and Behavior*, 76, 457-463.
26. Grimes, J.M. and Melloni, R.H., Jr. (2002) Adolescent anabolic-androgenic steroid exposure and offensive aggression: Role of serotonin neural signaling and development in intact syrian hamsters. *Pharmacology, Biochemistry and Behavior*, 73, 713-721.
25. Todtenkopf M.S., Stellar J.R., and Melloni, R.H. Jr. (2002) Neither ibotenic acid nor volkensin lesions of the nucleus accumbens shell affect the expression of cocaine-sensitization. *European Journal of Neuroscience*, 16, 541-546.
24. DeLeon, K.R., Grimes, J.M., and Melloni, R.H., Jr. (2002) Repeated anabolic-androgenic steroid treatment during adolescence increases vasopressin V1A receptor binding in syrian hamsters. Correlation with offensive aggression. *Hormones and Behavior*, 42, 182-191.
23. Connor, D.F., Miller, K.P., Cunningham, J.A., and Melloni, R.H., Jr. (2002) What does getting better mean? Child improvement and measure of outcome in residential treatment. *American Journal of OrthoPsychiatry*, 72, 110-117.
22. Melloni, R.H., Jr., Connor, D.F., Todtenkopf, M.S., DeLeon, K.R., Sanyal, P. and Harrison, R.J. (2001) Repeated cocaine treatment induces spontaneous flank marking in adolescent female golden hamsters. *Physiology and Behavior*, 73, 561-570.
21. Harrison, R.J., Connor, D.F., Novak, C., Nash, K., and Melloni, R.H., Jr. (2000) Chronic anabolic-androgenic steroid treatment during adolescence on increases anterior hypothalamic vasopressin and aggression in intact hamsters. *Psychoneuroendocrinology*, 25, 317-338.
20. Harrison, R.J., Connor, D.F., Novak, C., and Melloni, R.H., Jr. (2000) Chronic low dose cocaine treatment during adolescence facilitates aggression in hamsters. *Physiology and Behavior*, 69, 555-562.
19. Delville, Y., Melloni, R.H., Jr., and Ferris, C.F. (1998) Behavioral and neurobiological consequences of social subjugation during puberty in golden hamsters. *Journal of Neuroscience*, 18, 2667-2672.
18. Connor, D.F., Harrison, R.J., and Melloni, R.H., Jr. (1998) Biogenic amines and the psychopharmacology of aggression. *Expert Opinion on Therapeutic Patents*, 8, 349-359.

17. Connor, D.F., Melloni, R.H., Jr., and Harrison, R.J. (1998) Overt categorical aggression in referred children and adolescents. *Journal of American Academy of Child and Adolescent Psychiatry*, 37, 66-73.
16. Connor, D.F., Ozbayrak, K.R., Harrison, R.J., and Melloni, R.H., Jr. (1998) Prevalence and patterns of psychotropic and anticonvulsant medication use in children and adolescents referred to residential treatment. *Journal of Child and Adolescent Psychopharmacology*, 8, 27-38
15. Connor, D.F., Ozbayrak, K.R., Kusiak, K.A., Caponi, A.B., and Melloni, R.H., Jr. (1997) Combined pharmacotherapy in children and adolescents in a residential treatment center. *Journal of American Academy of Child and Adolescent Psychiatry*, 36, 248-254.
14. Melloni, R.H., Jr., Connor, D.F., Hang, P.X.T., Harrison, R.J., and Ferris, C.F. (1997) Anabolic-androgenic steroid exposure during adolescence facilitates aggressive behavior in golden hamsters. *Physiology and Behavior*, 61, 359-364.
13. Melloni, R.H., Jr., Aronin, N., DeGennaro, L.J., Ferris, C.F., and Harrison, R.J. (1997) Dde-I restriction endonuclease fragmentation: A novel method of generating cDNA probes for in situ hybridization in brain. *Journal of Histochemistry and Cytochemistry*, 45, 755-763.
12. Ferris, C.F., Melloni, R.H., Jr., Koppel, Jr., G., Perry, K.W., Fuller R.W., and Delville, Y. (1997) Vasopressin/serotonin interactions in the anterior hypothalamus affect aggressive behavior in golden hamsters. *Journal of Neuroscience*, 17, 4331-4340.
11. Ferris, C.F., Delville, Y., Brewer, J.A., Mansour, K., Yules, B., and Melloni, R.H., Jr. (1996) Vasopressin and the developmental onset of flank marking behavior in the golden hamster. *Journal of Neurobiology*, 30, 192-204
10. Connor, D.F., Harrison, R.J., and Melloni, R.H., Jr. (1996) Aggression and psychopharmacology in clinically referred children and adolescents. *ADHD Reports*, 4, 3-7.
9. Melloni, R.H., Jr. and Ferris, C.F. (1996) Adolescent anabolic steroid use and aggressive behavior. In *Understanding Aggressive Behavior In Children*, (C.F. Ferris and T. Grisso, eds.) *Annals of the New York Academy of Sciences*, New York, New York, Vol. 794, pp. 372-376
8. Melloni, R.H., Jr., Tokito, M., and Holzbaur E.L. F. (1995) Expression of the p150<sup>glued</sup> component of the dynactin complex in developing and adult rat brain. *Journal of Comparative Neurology*, 357, 15-24.
7. Howland, D.S., Savage, M.J., Huntress, F.A., Wallace, R.E., Schwartz, D.A., Loh, T Melloni, R.H., Jr., DeGennaro, L.J., Greenberg, B.D., Siman, R., Swanson, M.E., and Scott, R.W. (1995) Neuronal expression of native and familial  $\beta$ -amyloid precursor proteins in transgenic mice. *Neurobiology of Aging*, 16, 685-699.
6. Melloni, R.H., Jr. and DeGennaro, L.J. (1994) Temporal onset of synapsin I gene expression coincides with neuronal differentiation in the developing rat CNS. *Journal of Comparative Neurology*, 342, 449-462.
5. Melloni, R.H., Jr., Apostolides, P.J., Hamos, J.E, and DeGennaro, L.J (1994) Dynamics of synapsin I gene expression during the establishment and restoration of functional synapses in the rat hippocampus. *Neuroscience*, 58, 683-703.
4. Melloni, R.H., Jr., Hemmendinger, L.M., Hamos, J.E., and DeGennaro L.J. (1993) Synapsin I gene expression in the adult rat brain with comparative analysis of mRNA and protein in the hippocampus. *Journal of Comparative Neurology*, 327, 507-520.
3. Melloni, R.H., Jr., Estes, P.S., Howland, D.S., and DeGennaro, L.J. (1992) A direct method for the measurement of mRNA in discrete regions of mammalian brain. *Analytical Biochemistry*, 200, 95-99.

2. Howland, D.S., Carroll, P.S., Hemmendinger, L.M., Estes, P.S., Melloni, R.H., Jr., and DeGennaro, L.J. (1991) Functional dissection of the rat synapsin I gene promoter in transfected neuronal and nonneuronal cell lines. *Molecular Brain Research*, 11, 345-353.
1. Alexander, M.J., Miller, M.A., Dorsa, D.M., Bullock, B.P., Melloni, R.H., Jr., Dobner, P.R., and Leeman, S.E. (1989) Distribution of neurotensin/neuromedin N mRNA in rat forebrain: Unexpected abundance in hippocampus and subiculum. *Proceedings of the National Academy of Sciences*, 86, 5202-5206.

## Book Chapters

4. Melloni, R.H., Jr., Morrison, T.R., and Ricci, L.A. (2016) The Neuropathology of Adolescent Anabolic/Androgenic Steroid Use: Altered Development of the Reciprocal Hypothalamic Neural Circuit Controlling Aggressive Behavior. In *The Neuropathology of Drug Addictions and Substance Misuse, Volume 2*, V. Preedy (ed.), Academic Press.
3. Morrison, T.R., and Melloni, R.H., Jr. (2014) The Role of Vasopressin, Serotonin, and Vasopressin/Serotonin Interactions in Aggressive Behavior. In *Current Topics in Behavioral Neurosciences: The Neuroscience of Aggression*, K.A. Miczek and A. Meyer-Lindenberg (eds.), Springer Press.
2. Ferris, C.F., Melloni, R.H., Jr., and Albers, H.E. (2013) Role of Vasopressin in Flank Marking and Aggression. In *Oxytocin, Vasopressin and Related Peptides in the Regulation of Behavior*, E. Choleris, D. Pfaff, and M. Kavaliers (eds.), Cambridge University Press.
1. Grimes, J.M, Ricci, L.A., Rasakham, S., and Melloni, R.H., Jr. (2005) Drugs of Abuse and Aggression. In *Biology of Aggression*, R.J. Nelson (ed.), Oxford Press.

## Scientific Proceedings and Conferences

16. Adolescent Exposure to Anabolic Steroids Modulates Anxiety Through Aggression Neural Circuitry (2017) Neuroscience Seminar Series, National Institute on Drug Abuse, Bethesda, Maryland.
15. Vasopressin, A Neurobiologic Trigger System for Aggressive Behavior? (2010) Annual Meeting of the Midwestern Psychological Association, Chicago, Illinois
14. A Neural Model of Offensive Aggression: Findings from Research using Pubertal Syrian Hamsters. (2010) *20<sup>th</sup> Meeting of the International Society for Research on Aggression*, Storrs, Connecticut.
13. Adolescent Anabolic Steroids and the Neurobiology of Aggression. (2009) Annual Meeting of the Midwestern Psychological Association, Chicago, Illinois.
12. Vasopressin: A Molecular Trigger for Aggression? (2008) *DARPA Workshop, NeuBAR: Neuroepidemiological Basis of Aggression and Reconciliation*, Stanford, California.
11. Adolescent Anabolic Steroids and the Neurobiology of Aggression. (2007) DBNBR Science Friday Seminar Series, National Institute on Drug Abuse, National Institutes of Health, Bethesda, Maryland.
10. Effect of Risperidone in an Animal Model of Maladaptive Aggression. (2006) *53<sup>rd</sup> Annual Meeting of the American Academy of Child and Adolescent Psychiatry*, San Diego, California.
9. Adolescent Anabolic Steroids: Neuro-Developmental Consequences for Aggression. (2006) *Workshop on Steroid Hormones and Brain Function. Neurobiology of Anabolic-Androgenic Steroid Abuse*. Breckenridge, Colorado.
8. Adolescent Drug Abuse, Vasopressin & Aggression: Divergent Drugs Yet Convergent Neural Paths to the Development of the Aggressive Phenotype. (2006) *16<sup>th</sup> Meeting of the International Society for Research on Aggression*, Minneapolis, Minnesota.



7. Serotonin Neural Signaling and Development Modulate the Generation of the Aggressive Phenotype in a Preclinical Model of Adolescent Anabolic Steroid Abuse. (2006) *16<sup>th</sup> Meeting of the International Society for Research on Aggression*, Minneapolis, Minnesota.
6. Adolescent anabolic/androgenic steroids: Neuro-behavioral consequences for aggression. (2005) *9<sup>th</sup> Meeting of the Society for Behavioral Neuroendocrinology*, University of Texas, Austin, Texas.
5. Conference Chairman: Neurobehavioral consequences of anabolic-androgenic steroid abuse. (2005) *9<sup>th</sup> Meeting of the Society for Behavioral Neuroendocrinology*, University of Texas, Austin, Texas.
4. Adolescent anabolic steroids: Neuro-developmental consequences for aggression. (2004) Cutting Edge in Science Seminar Series, National Institute on Drug Abuse, Bethesda, Maryland.
3. Prenatal cocaine exposure, vasopressin, and aggression in hamsters. (2002) *14<sup>th</sup> Meeting of the International Society for Research on Aggression*, McGill University, Montreal (Quebec).
2. Adolescent anabolic steroids activate the anterior hypothalamic vasopressin neural circuit controlling aggression in hamsters. (1998) *12<sup>th</sup> Meeting of the International Society for Research on Aggression*, Ramapo College, Ramapo, New Jersey.
1. Preclinical models of adolescent anabolic steroid abuse and aggression. (1996) *2<sup>nd</sup> International Colloquium on Aggression, Mental Illness and Psychiatric Intervention*, Philippe Pinel Research Center, Montreal, Canada

## University, Medical and Regional Education

25. The psychopathology of adolescent drug abuse. (2018) Neuroscience Seminar Series, Graduate School of Biomedical Sciences, University of Massachusetts Medical School, Worcester, Massachusetts
24. The neurobiology of aggression and anxiety: What Psychiatry can learn from preclinical animal research (2015) Psychiatry Resident Training Series, Brigham and Women's Hospital, Boston, Massachusetts
23. Anabolic steroids: Truths and dangers (2011) Athletes Night, Carver High School, Carver, Massachusetts
22. Adolescent anabolic steroids and the neurobiology of aggression. (2008) Behavioral Neuroscience Seminar Series, University of Massachusetts Amherst, Amherst, Massachusetts.
21. The truth about anabolic steroids. (2008) Sports Medicine Community Educational Outreach Series, The Jordan Hospital Systems, Plymouth, Massachusetts.
20. Adolescent drug abuse: Neuro-behavioral consequences for aggression. (2008) Psychology Department Seminar Series, University of Texas, Austin, Texas.
19. What animal models can teach us about the clinical management of aggression. (2006) Psychiatry Grand Rounds, Massachusetts Mental Health Hospital, Jamaica Plain, Massachusetts
18. Anabolic-androgenic steroids: Facts...not fiction. (2006) Northeastern University Athletics Program Lecturer, Northeastern University, Boston, Massachusetts.
17. Can animal models can teach us about the clinical management of aggression. (2006) Medical Grand Rounds, Southcoast Hospital Group, Wareham, Massachusetts.
16. Animal models and the clinical management of aggression. (2006) Psychiatry Resident Training Series, Brigham and Women's Hospital, Boston, Massachusetts
15. Adolescent Drug Abuse: Neuro-behavioral consequences for aggression. (2005) Center for Behavioral Neuroscience, Georgia State University, Atlanta, Georgia.
14. Anabolic/androgenic steroids: Neuro-developmental consequences for aggression. (2005) Biology Seminar Series, Northeastern University, Boston, Massachusetts.

13. The neurobiology of aggression: What Psychiatry can learn from hamsters & fish. (2005) Psychiatry Resident Training Series, Brigham and Women's Hospital, Boston, Massachusetts
12. Adolescent Drug Abuse: Neuro-developmental consequences for aggression. (2004) Neuroscience Seminar Series, University of Massachusetts Medical Center, Worcester, Massachusetts.
11. Steroids, Stimulants and Aggression: Divergent drugs yet convergent paths to the development of the aggressive phenotype. (2004) University of South Dakota, Vermillion, South Dakota.
10. How hamsters might pave the path to a treatment strategy for impulsive aggression. (2004) Medical Grand Rounds, Southcoast Hospital Group, Tobey Hospital, Wareham, Massachusetts.
9. Drug abuse and the neurobiology of aggression: What psychiatry can learn from hamsters. (2004) Psychiatry Resident Rounds, Brigham and Women's Hospital, Boston, Massachusetts
8. Adolescent drug exposure and the neurobiology of aggression: A tale of two transmitters. (2003) Neuroscience Seminar Series, McLean Hospital, Belmont, Massachusetts.
7. Drug abuse and aggression: Convergent paths to the aggressive phenotype. (2003) Psychiatry Grand Rounds, University of Massachusetts Medical Center, Worcester, Massachusetts.
6. Adolescent drug abuse and the neurobiology of aggression: A tale of two transmitters. (2002) Department of Psychology Seminar Series, University of Texas, Austin, Texas.
5. The biology of aggression. What animal models can tell us. (2001) Barnett Institute Research Retreat, The Barnett Institute, Northeastern University, Boston, Massachusetts.
4. Adolescent drug abuse and the neurobiology of aggression: A tale of two transmitters. (2001) Neuroscience Seminar Series, Northeastern University, Boston, Massachusetts.
3. Adolescent anabolic steroids and the neurobiology of aggression. (2001) Neuroscience Seminar Series, Northeastern University, Boston, Massachusetts
2. Animal models and the neurobiology of aggression. (1998) Psychiatry Grand Rounds, University of Massachusetts Medical Center, Worcester, Massachusetts.
1. The Devereux aggression project: Characterization and neurobiology of a clinical sample. (1997) The Deveraux Foundation, Rutland, Massachusetts.

## Research Grants

### *External*

- |           |   |
|-----------|---|
| 2011-2018 | National Institutes of Health (DA10547 13-17) - Principal Investigator<br>Adolescent Anabolic Steroids, Vasopressin and Aggression  |
| 2008-2010 | National Science Foundation (IOS-0909854) – Principal Investigator<br>Vasopressin-Glutamate Interactions in Anabolic Steroid-Treated Hamsters.                                    |
| 2003-2010 | National Institutes of Health (DA10547 07-12) - Principal Investigator<br>Adolescent Anabolic Steroids, Vasopressin and Aggression  |
| 2006-2008 | Janssen Pharmaceuticals – Principal Investigator<br>Pali-Peridone and the Behavioral Pharmacology of Aggression   |
| 2004-2008 | National Institutes of Health (DA10547) - Principal Investigator<br>Undergraduate Research with NIDA – Summer Supplements<br>Anabolic Steroids and the Neurobiology of Aggression |
| 2005-2007 | Janssen Pharmaceuticals – Principal Investigator<br>Risperidone and the Behavioral Pharmacology of Impulsive Aggression   |

- 2003-2006 National Institutes of Health (DA018033 01-03) – Principal Investigator  
Anabolic Steroids, GABA and Aggression
- 2004-2005 National Institutes of Health (DA015927 01-02) – Principal Investigator  
Adolescent Cocaine: Vasopressin/Serotonin on Aggression
- 2002-2005 National Institutes of Health (DA10547) – Principal Investigator  
Undergraduate Research with NIDA – Summer Supplements  
Adolescent Cocaine and the Neurobiology of Aggression
- 2002-2003 The Devereux Foundation – Co-Investigator with Dr. Daniel Connor  
Early Developmental Stress and Aggression in Psychiatrically-Referred Youth
- 2001-2002 National Institutes of Health (DA10547) – Principal Investigator  
Undergraduate Research with NIDA – Summer Supplement  
Adolescent Drug Abuse and the Neurobiology of Aggression
- 1996-2002 National Institutes of Health (DA10547 01-06) - Principal Investigator  
Adolescent Anabolic Steroids, Vasopressin and Aggression
- 1995-1996 The Harry Frank Guggenheim Foundation - Principal Investigator  
Neuronal Plasticity and the Control of Aggressive Behavior

### *Internal*

- 2004-2005 Northeastern University – Principal Investigator  
Research and Scholarship Development Fund Award  
Atypical Antipsychotics: Aggression Panacea or General Behavioral Suppressant
- 2002-2003 Northeastern University – Principal Investigator  
Faculty Undergraduate Research Institute Award  
Adolescent Cocaine and the Neurobiology of Aggression
- 2001-2002 Northeastern University – Principal Investigator  
Research and Scholarship Development Fund Award  
Aggression, Substance Abuse, and Biological Reactivity in Referred Youth
- 2001-2002 Northeastern University – Principal Investigator  
Undergraduate Research Fund Award  
Adolescent Cocaine and the Control of Flank Marking in Female Hamsters
- 2000-2001 Northeastern University – Co-Investigator with Dr. Denise Jackson  
Research and Scholarship Development Fund Award  
Prenatal Cocaine Exposure on Serotonergic Regulation of AVP Release

### **Service**

#### *Grant Review Panels*

- 2014 Cutting-Edge Basic Research Awards (CEBRA) (R21) Review Panel, *ad hoc* member,  
National Institutes of Health.
- 2013 Integrative Organismal Systems Review Panel, National Science Foundation.
- 2013 Fellowships Review Panel, Sigma Delta Epsilon, Graduate Women in Science.
- 2012-2013 Cutting-Edge Basic Research Awards (CEBRA) (R21) Review Panel, *ad hoc* member,  
National Institutes of Health.
- 2010-2012 Behavioral Neuroscience Review Panel, National Science Foundation.

2005-2009	BioBehavioral Regulation, Learning and Ethology Review Panel (BRLE), Charter Panel member, National Institutes of Health.
2006-2008	Cellular and Molecular Neurobiology Special Emphasis Review Panel (MDCN-G-02), <i>ad hoc</i> member, National Institutes of Health.
2005-2006	Grant Review Panel, <i>ad hoc</i> member, Guggenheim Foundation.
2004-2005	BioBehavioral Regulation, Learning and Ethology Review Panel (BRLE), <i>ad hoc</i> member, National Institutes of Health, Center For Scientific Review.
2003	Neurosciences Review Panel, The Wellcome Trust, London, England.
2002-2003	Biobehavioral and Behavioral Processes Special Emphasis Review Panel (BBBP-1) <i>ad hoc</i> member, National Institutes of Health.

*Peer-Review Journals*

Reviewer, *Steroids*, Elsevier Publishing  
 Reviewer, *Aggressive Behavior*, Springer Publishing  
 Reviewer, *Journal of Psychopharmacology*, New York Publishing  
 Reviewer, *Neuroscience*, Pergamon Publishing.  
 Reviewer, *Psychopharmacology*, Springer Publishing.  
 Reviewer, *Behavioral Neuroscience*, APA Publishing  
 Reviewer, *Behavioural Pharmacology*, Elsevier Publishing  
 Reviewer, *Pharmacology, Biochemistry and Behavior*, Elsevier Publishing  
 Reviewer, *Behavioural Brain Research*, Elsevier Publishing  
 Reviewer, *Hormones and Behavior*, Elsevier Publishing.

*Departmental Service - Northeastern University*

2020-present	Psychology Department Safety Officer
2013-present	Graduate Committee
2012-2013	Search Committee Chairman, Behavioral Neuroscience Faculty Hire
2012-2014	M.A. Thesis Committees, Colin Rey
2010-2013	Ph.D. Thesis Committee, Martha Caffery
2011-2012	Search Committee Chairman, Behavioral Neuroscience Faculty Hire
2010-2011	M.A. Thesis Committee, Ada Felix-Ortiz
2010-2011	Search Committee Chairman, Behavioral Neuroscience Faculty Hire
2007-2010	M.A. and Ph.D. Thesis Committee, Amanda Carey
2006-2008	M.A. and Ph.D. Thesis Committee, Kampeuseth Rasakham
2006-2007	Search Committee Chairman, Behavioral Neuroscience Faculty Hire
2003-2005	M.A. and Ph.D. Thesis Committees, Heather Brenhouse
2003-2004	Merit Review Committee
2003	Behavioral Neuroscience Senior Honors Committee, Siobhan Walsh, Danielle Zito
2002-2005	M.A. and Ph.D. Thesis Committees, Farzad Mortazavi
2001-2005	M.A. and Ph.D. Thesis Committees, George Tryksak
2001-2004	M.A. and Ph.D. Thesis Committees, James Akula, Nora Murphy
2001-2003	Senior Honors Committee, Andrew Voluse
2001-2002	Behavioral Neuroscience Senior Honors Committee, Lisa Keeler, Eric Oh
2000-2002	M.A. and Ph.D. Thesis Committees, Aurora Mendelson
2000-2001	M.A. and Ph.D. Thesis Committees, Steven Glatt
1999-2001	M.A. and Ph.D. Thesis Committees, Mark Todtenkopf
1999	Behavioral Neuroscience Senior Honors Committee, Jasmine Hasque

### *University Service - Northeastern University*

2019-present	Laboratory Safety Committee
2019-present	COS Full Professor Advisory Committee
2005-2021	Chairman, Institutional Animal Care and Use Committee
2003-present	Institutional Animal Care and Use Committee
2000-present	Behavioral Neuroscience Program Steering Committee
2010-2017	Director, Behavioral Neuroscience Program
2011-2012	College of Science Undergraduate Curriculum Committee
2006-2008	Director, Behavioral Neuroscience Program
1999-2007	Graduate Neuroscience Ph.D. Program Committee
2005-2006	Ph.D. Thesis Committee, William Dickerson, Pharmaceutical Sciences
2005-2006	Chairman, Graduate Neuroscience Ph.D. Program Committee
2003-2006	Assistant Director, Behavioral Neuroscience Program
1999-2003	Radiation Safety Committee

### *University of Massachusetts Medical School*

1996-1998	Graduate Council, Graduate School of Biomedical Sciences
1996-1997	Grant Review Committee, Joseph P. Healy Awards

### *Community Service*

2019-present	Selection Committee, Nye Scholarship Trust, West Hartford, CT
1997-2021	Founder and Chairman, Dick Melloni Youth Foundation, Wareham, MA
2008-2010	Board of Managers, Gleason Family and Southcoast YMCA Systems, Wareham, MA
2007-2008	Chairman, "Make-it-Happen" Scholarship and Hardship Campaign, Gleason Family and Southcoast YMCA Systems, Wareham, MA
2004-2006	President, The Wareham Community Associates, Wareham, MA
2002-2004	Vice President, The Wareham Community Associates, Wareham, MA
2002-2003	Major Gifts Committee and Charter Member, Wareham YMCA Development Project, Wareham, MA.
1997-2019	Member, The Wareham Community Associates, Wareham, MA

## Teaching and Advising

### *Graduate Teaching*

#### *Northeastern University – Psychology Department*

Clinical Neuroscience (Biology of Behavior) Proseminar  
Research Methods in Psychology, Team taught – 2 lectures/yr  
Ethics and Professional Issues, Team taught, - 1 lecture/year

### *Undergraduate Teaching*

#### *Northeastern University – Psychology Department*

Clinical Neuroanatomy  
Psychopharmacology  
Biological Psychology  
Biological Psychology Honors Thesis  
Biological Psychology Directed/Independent Study  
Biological Psychology Seminar  
Biology Junior/Senior Honors

*Educational Outreach*

*Northeastern University – Psychology Department*

Laboratory Host, NIDA Undergraduate Summer Research Program

*University of Massachusetts Medical School*

Laboratory Host, Howard Hughes Summer Fellowship, Office of Science Education

Laboratory Host, High School Health Careers Program, Office of Science Education

Lecturer, Frontiers in Science Program, Office of Science Education

Science Mentor, Office of Science Education and Worcester Foundation for Experimental Biology

Research Placement Coordinator, AHEC Frontiers in Science Minority Teacher Summer Fellowship

*Graduate Students Advised*

- 2011-2016 Thomas Morrison, Doctoral Dissertation in Psychology  
*Dopamine, vasopressin and anabolic steroid-induced aggression.*
- 2007-2011 Jared Schwartz, Doctoral Dissertation in Psychology  
*Dopamine/Vasopressin modulate anabolic steroid-induced aggression.*
- 2006-2010 Maria Carrillo, Doctoral Dissertation in Psychology  
*Glutamate/GABA modulate adolescent anabolic steroid-induced aggression.*
- 2006-2008 Glenn Coppersmith, Doctoral Dissertation in Psychology  
*Mediators and modulators of aggression subtype in referred-youth.*
- 2005-2007 Shannon Fischer, Master's Thesis in Psychology  
*Glutamate modulates adolescent anabolic steroid-induced aggression.*
- 2003-2005 Khampaseuth Rasakham, Masters Thesis in Psychology  
*Adolescent anabolic steroids, serotonin/vasopressin, and aggression.*
- 2001-2006 Jill Grimes, Doctoral Dissertation in Psychology  
*Serotonin/GABA modulate adolescent anabolic steroid-induced aggression.*
- 2001-2005 Lesley Ricci, Doctoral Dissertation in Psychology  
*Serotonin type-3 receptors modulate adolescent cocaine-induced aggression.*
- 1996-1997 Paula DeDiego, Masters Thesis in Biology  
Fitchburg State College, Fitchburg, MA  
*Developmental Effects of Haloperidol on Vasopressin in Hamsters.*
- 1994-1995 Mark Tiffany, Masters Thesis in Biology  
Clark University, Worcester, MA  
*Molecular Cloning of the Hamster Vasopressin VIA-Subtype Receptor.*
- 1993-1998 Yung Yin, Doctoral Dissertation in Biomedical Science (Co-Mentor)  
Worcester Polytechnic Institute, Worcester, MA  
*Generation and analysis of synaptophysin "knock-out" PC12 cells.*

*NIDA Undergraduate Summer Fellowship Program*

- 2005 Diana Joshua, University of the Virgin Islands, St. Thomas, Virgin Islands
- 2004 Jasmin Courtney, Spelman College, Atlanta, GA
- 2003-2004 Inzhili Ismail, Virginia Union University, Richmond, VA
- 2002 Yasmin A. Ahmedi, University of Washington, Seattle, WA
- 2001 Monique Bailey, Lincoln University, Lincoln University, PA

*Undergraduate Honors Thesis*

- 2007 Robin Ortiz, *Dopamine receptors in an animal model of Parkinson's Disease*
- 2003-2005 Thomas McCann, *Dopamine D2 receptors modulate cocaine-induced aggression.*
- 2002-2003 Irina Knyshevski, *Dopamine modulates adolescent cocaine-induced aggression.*
- 1999-2001 Julie Cunningham, *Psychosocial risk and aggression in referred youth.*
- 1999-2000 Christina DiTomasso, *Abuse history and aggression: A retrospective study.*
- 1999-2000 Jennifer Berg, *Developmental social stress and sensitization to cocaine.*
- 1997 Rajesh Nandwani, Worcester Polytechnic Institute, Worcester, MA, *Sequencing of the hamster serotonin 1B receptor*
- 1996 Nadeem Syed, Worcester Polytechnic Institute, Worcester, MA, *Cloning and sequencing of the hamster serotonin 1B receptor*
- 1995-1998 Cristine Novak, The College of the Holy Cross, Worcester, MA, *Animal models of substance abuse and aggression*
- 1993-1998 Marcel Roy, Clark University, Worcester, MA, *Sequencing and expression of the hamster vasopressin V1a receptor*