

**CURRICULUM VITAE****ANNA Y. KLINTSOVA, PH.D.**

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 Department of Psychological and Brain Sciences  
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**CURRENT APPOINTMENT:**

**September 2018** PROFESSOR, Department of Psychological and Brain Sciences,  
**University of Delaware**

**EDUCATION:**

Ph.D. (Candidate of Science)	Feb. 1992	Department of Medicine <b>Moscow State University of Friendship between Nations Moscow, Russia</b>	Neuroscience, Neuroanatomy
B.S.	June 1980	Biology Department, <b>Moscow State University Moscow, Russia</b>	Physiology, Histology & Cytology
B.S.	June 1989	<b>Moscow State Institute of Foreign Languages, Moscow, Russia</b>	English

**PROFESSIONAL EMPLOYMENT AND EXPERIENCE:**

<b>September 2018 - Present</b>	PROFESSOR, Department of Psychological and Brain Sciences, <b>University of Delaware</b>
<b>September 2010 – August 2018</b>	ASSOCIATE PROFESSOR, Department of Psychological and Brain Sciences <b>University of Delaware</b>
<b>September 2004 August 2010</b>	ASSISTANT PROFESSOR, Psychology Department, <b>University of Delaware</b>
<b>September 2002 – August 2004</b>	ASSISTANT PROFESSOR, Department of Psychology, <b>SUNY - Binghamton University</b>
<b>January 1995 – August 2002</b>	RESEARCH ASSISTANT PROFESSOR, Associate Director of the Fetal Alcohol Study Group, Laboratory of Dr. W.T. Greenough, <b>University of Illinois at Urbana-Champaign, Beckman Institute</b>
<b>August 1993 - December 1994</b>	RESEARCH ASSOCIATE IN NEUROBIOLOGY Laboratory of Dr. Peter C. Brunjes, Department of Psychology, <b>University of Virginia</b>
<b>January 1993 - August 1993</b>	POSTDOCTORAL RESEARCH FELLOW ( <b>International Brain Research Organization Fellowship</b> )  Lab. Dr. William B Levy & Dr. Nancy L Desmond Department of Neurosurgery, <b>University of Virginia</b>
<b>March 1985 -</b>	RESEARCH ASSOCIATE

February 2021  
January 1993

CV

Anna Y. Klintsova, Ph.D.

Laboratory of Clinical Neuromorphology, **National Research Center of Mental Health, Russian Academy of Medical Sciences**, Moscow  
Completed thesis "Synaptic Plasticity in the Dopaminergic Brain Areas under the Chronic Effect of Amphetamine and Haloperidol" and received PhD degree

1980-1985

RESEARCH ASSOCIATE  
Neuroscience Lab, MIRA, Russian Academy of Sciences, Moscow, Russia

**RESEARCH INTERESTS:**

- Brain plasticity (neuronal, synaptic and glia) in normal and damaged state
- Developmental alcohol exposure and potential therapeutic approaches: animal models
- Quantitative neuroanatomy and morphology

**FELLOWSHIPS AND AWARDS**

- 1993 International Brain Research Organization, Postdoctoral Research Training Fellowship
- 1993 Women in Neuroscience Travel Award
- 1997 Neurobehavioral Teratology Society, Award for Excellence in Research
- 1997 Winter Conference for Brain Research, Fellowship Award
- 2004 ISBRA Travel Award, to present a paper at 12<sup>th</sup> World Congress on Biological Alcohol Research
- 2006 William Evans Visiting Fellow, annual award from the University of Otago, Dunedin, New Zealand, to visit and work in the University for 2 months
- 2007 Grant from the Faculty of Arts Endowment Fund, University of Manitoba, to give a lecture in Psychology Department and at the Manitoba Institute of Child Health
- 2018 Delaware's 2018 Neuroscientist of the Year
- 2020 Fulbright Scholar Award
- 2020 NIH Center for Scientific Review, AA 4 Study Section, Member (2020-2024)
- 2021 Stage 2/Editorial Board reviewer for the [NIH Director's New Innovator Award \(DP2\) Program](#).

**MEMBERSHIP IN PROFESSIONAL SOCIETIES**

- Society for Neuroscience
- International Brain Research Organization
- Neurobehavioral Teratology Society
- Research Society on Alcoholism
- FASDSG (Fetal Alcohol Spectrum Disorders Study Group)
- Electron Microscopy Society of America
- Women in Neuroscience
- Faculty for Undergraduate Neuroscience

**CURRENT SUPPORT**

1. Project Title: "**Hippocampal-thalamo-prefrontal circuitry damage in an animal model of FASD**"  
Type: R21 -- R21AA026613                      Role: PI  
Source of Support: NIH/NIAAA                      Dates: 09/28/2018 – 08/31/2020 (no cost extension till 08/31/2021)  
Total Award Amount: \$250,000
2. Project/Proposal Title: "**Hippocampal-thalamo-prefrontal circuitry damage and therapeutic intervention in a model of FASD**"  
Type: R01 -- R01AA027269                      Role: PI  
Source of Support: NIH/NIAAA                      Dates: 09/01/2019 - 08/31/2024  
Total Award Amount: \$1,988,814

**PUBLISHED SCHOLARLY WORK**

**I. PUBLICATIONS IN PEER REVIEWED JOURNALS (H-index = 30 per Google Scholar)**

1. Milbocker KA, **Klintsova AY** (2020) Examination of cortically projecting cholinergic neurons following exercise and environmental intervention in a rodent model of fetal alcohol spectrum disorders. *Birth Defects Res.* Nov 10. doi: 10.1002/bdr2.1839. Online ahead of print. PMID: 33174398 [Impact Factor 2.15](#)
2. Savage LM, Nunes PT, Gursky ZH, Milbocker KA, **Klintsova AY** (2020) Midline Thalamic Damage Associated with Alcohol-Use Disorders: Disruption of Distinct Thalamocortical Pathways and Function. *Neuropsychol Rev.* Aug 12. doi: 10.1007/s11065-020-09450-8. Online ahead of print. PMID: 32789537. [Impact Factor 4.89](#)
3. Gursky ZH, Johansson JR, **Klintsova AY** (2020) Postnatal alcohol exposure and adolescent exercise have opposite effects on cerebellar microglia in rat. *Int J Dev Neurosci.* Jul 18. doi: 10.1002/jdn.10051. Online ahead of print. PMID: 32681672. [Impact Factor 2.03](#)
4. Gursky ZH, Spillman EC, **Klintsova AY** (2020) Single-day Postnatal Alcohol Exposure Induces Apoptotic Cell Death and Causes long-term Neuron Loss in Rodent Thalamic Nucleus Reuniens. *Neuroscience*, 435:124-134. [Impact Factor 3.25](#) doi: 10.1016/j.neuroscience.2020.03.046. Epub 2020 Apr 3. PMID: 32251710.
5. Gursky ZH, Savage LM, **Klintsova AY** (2019) Nucleus reuniens of the midline thalamus of a rat is specifically damaged after early postnatal alcohol exposure. *Neuroreport*, Jul 3; 30(10): 748-752. PMID: 31095109. [Article is featured on the journal's cover.](#)
6. **Klintsova AY**, Hamilton DA, Mooney SM, Petrenko CLM (2019) Proceedings of the 2018 Annual Meeting of the Fetal Alcohol Spectrum Disorders Study Group. *Alcohol*, Jun; 69:47-55. doi: 10.1016/j.alcohol.2019.05.005.PMID: 31173861. [Impact Factor 2.78](#)
7. Wozniak JR, **Klintsova AY**, Hamilton DA, Mooney SM (2018) Proceedings of the 2017 Annual Meeting of the Fetal Alcohol Spectrum Disorders Study Group. *Alcohol*, Dec; 81:7-14. doi: 10.1016/j.alcohol.2017.10.007. Review.PMID: 29550584. [Impact Factor 2.78](#)
8. Boschen KE, Keller SM, Roth TL, **Klintsova AY** (2018) Epigenetic mechanisms in alcohol- and adversity-induced developmental origins of neurobehavioral functioning. *Neurotoxicol Teratol.*, 66: 63-79. PMID: 29305195, PMCID: PMC5856624. [Impact Factor 2.76](#)
9. Ruggiero MJ, Boschen KE, Roth TL, **Klintsova AY** (2018) Sex differences in early microglial colonization of the developing rat hippocampus following a single-day alcohol exposure. *J Neuroimmune Pharmacol.*, 13:189-203. <https://doi.org/10.1007/s11481-017-9774-1> PMID: 29274031 [Impact Factor 4.11](#)
10. Medina AE, Wozniak JR, **Klintsova AY**, Hamilton DA (2017) Proceedings of the 2016 annual meeting of the Fetal Alcohol Spectrum Disorders Study Group. *Alcohol*, 65, 19-24. PMID: 29084625 [Impact Factor 2.78](#)
11. Boschen KE, **Klintsova AY** (2017) Disruptions to Hippocampal Adult Neurogenesis in Rodent Models of FASD. *Neurogenesis*, 4: 1, e1324259, DOI: 10.1080/23262133.2017.1324259.
12. Gursky ZH, **Klintsova AY** (2017) Wheel Running and Environmental Complexity as a Therapeutic Intervention in an Animal Model of FASD. *Journal of Visual Experiments*, e54947, DOI:10.3791/54947 PMID: 28190057 [Impact Factor 1.67](#)
13. Boschen KE, McKeown SE, Roth TL, **Klintsova AY** (2017) Impact of exercise and a complex environment on hippocampal morphology, Bdnf gene expression and DNA methylation in male rat pups neonatally exposed to alcohol. *Dev Neurobiology*, 77(6): 708-725 DOI: 10.1002/dneu.22448. [Epub 2016]. [Impact Factor 4.42](#)
14. Boschen KE, Ruggiero MJ, **Klintsova AY** (2016) Neonatal binge alcohol exposure increases microglia activation in the developing rat hippocampus. *Neuroscience*, 324:355-366. PMID: 26996510 [Impact Factor 3.32](#)
15. Valenzuela CF, Medina AE, Wozniak JR, **Klintsova AY** (2016) Proceedings of the 2015 Annual Meeting of the Fetal Alcohol Spectrum Disorders Study Group. *Alcohol*, 50, 37-42. PMID: 26695590 [Impact Factor 2.06](#)
16. Hamilton GF, Criss K, **Klintsova AY** (2015) Voluntary Exercise Partially Reverses Neonatal Alcohol-Induced Deficits in mPFC Layer II/III Dendritic Morphology of Male Adolescent Rats. *Synapse*, 69(8), 405-415. PMID: 25967699 [Impact Factor 2.95](#)
17. Boschen KE, Criss KJ, Palamarchouk V, Roth TL, **Klintsova AY** (2015) Effects of developmental alcohol exposure vs. intubation stress on BDNF and TrkB expression in the hippocampus and prefrontal cortex of neonatal rats. *International Journal of Developmental Neuroscience*, 43: 16-24. PMID: 25805052 [Impact Factor 3.16](#)
18. Boschen KE, Hamilton GF, Delorme JE, **Klintsova AY** (2014) Activity and Social Behavior in a Complex Environment in Rats Neonatally Exposed to Alcohol. *Alcohol*, 48(6):533-41. PMID: 25150044 [Impact Factor 2.06](#)
19. Hamilton GF, Jablonski SA, Schuffino FL, St Cyr SA, Stanton ME, **Klintsova AY** (2014) Exercise and environment as an intervention for neonatal alcohol effects on hippocampal adult neurogenesis and learning. *Neuroscience*, 265; 274-290. PMCID: PMC4005875 [Impact Factor 3.32](#)
20. Wagner JL, **Klintsova AY**, Greenough WT, Goodlett CR (2013) Rehabilitation training using complex motor learning rescues deficits in eyeblink classical conditioning in female rats induced by binge-like neonatal alcohol exposure. *Alcohol Clin Exp Res.* 37(9):1561-70. PMID: 23647404 [Impact Factor 3.39](#)
21. **Klintsova, AY**, Hamilton, GF, Boschen, KE (2013) Long-Term consequences of Developmental Alcohol Exposure on Brain Structure and Function: Therapeutic Benefits of Physical Activity. *Brain Sci.* 3, 1-38; doi:10.3390/brainsci3010001 [Impact Factor 2.8](#)
22. Schreiber, W.B., St. Cyr, S.A. Jablonski, S.A., Hunt, P.S., **Klintsova, A.Y.**, Stanton, M.E. (2013) Effects of Exercise and Environmental Complexity on Deficits in Trace and Contextual Fear Conditioning Produced by Neonatal Alcohol Exposure in Rats. *Developmental Psychobiology* 55(5):483-95. PMID:22644967 [Impact Factor 3.2](#)
23. Murawski, N.J., **Klintsova, A.Y.**, Stanton, M.E. (2012) Neonatal alcohol exposure and the hippocampus in developing male rats: effects of behaviorally induced CA1 c-Fos expression, CA1 pyramidal cell number and contextual fear conditioning, *Neuroscience*, 206:89-99. [Impact Factor 3.32](#)
24. Hamilton GF, Boschen KE, Goodlett CR, Greenough WT, **Klintsova AY** (2012) Housing in Environmental Complexity Following Wheel Running Augments Survival of Newly-Generated Hippocampal Neurons in a Rat Model of Binge Alcohol Exposure during the Third Trimester Equivalent. *Alcohol Clin Exp Res* 36(7):1196-2042. PMCID: PMC4543282 [Impact Factor 3.39](#)
25. Hamilton GF, Murawski NJ, St. Cyr SA, Jablonski SA, Schifflino FL, Stanton ME, **Klintsova AY.** (2011) Neonatal alcohol exposure disrupts hippocampal neurogenesis and contextual fear conditioning in adult rats. *Brain Research*, 1412: 88-101. [Impact Factor 3.96](#)
26. Vetreno RP, **Klintsova AY** and Savage LM (2011) Stage-dependent alterations of progenitor cell proliferation and neurogenesis in an animal model of Wernicke-Korsakoff syndrome. *Brain Research*, 1391:132-46. [Impact Factor 3.96](#)
27. Hamilton GF, Whitcher LT and **Klintsova AY** (2010) Postnatal binge-like alcohol exposure decreases dendritic complexity while increasing the density of mature spines in mPFC layer III pyramidal neurons. *Synapse*, 64:127-135. [Impact Factor 2.95](#)
28. Helfer, JL, Goodlett, CR, Greenough, WT, **Klintsova, AY.** (2009) The Effects of Exercise on Adolescent Hippocampal Neurogenesis in a Rats Model of Binge Alcohol Exposure During the Brain Growth Spurt. *Brain Research*, 1294: 1-11.

29. Helfer JL, Calizo LH, Dong WK, Goodlett CR, Greenough WT, **Klintsova AY** (2009) Binge-like Postnatal Alcohol Exposure Triggers Cortical Gliogenesis in Adolescent Rats. *Journal of Comparative Neurology*, 514(3): 259-271.
30. Whitcher LT, **Klintsova AY**. (2008) Postnatal binge-like alcohol exposure reduces spine density without affecting dendritic morphology in rat mPFC. *Synapse*, 62(8):566-73.
31. **Klintsova AY**; Helfer JL; Calizo LH; Dong WK; Goodlett CR; Greenough WT. (2007) Persistent impairment of hippocampal neurogenesis in young adult rats following early postnatal alcohol exposure. *Alcohol Clin Exp Res*, 31(12): 2073-2082.
32. **Klintsova AY**, Helfer JL, Goodlett CR, Greenough WT (2007) Neurogenesis in adult hippocampus: Postnatal alcohol and adult exercise effects. In: Structural, functional, neurochemical and immunochemical aspects of brain plasticity and asymmetry. Ed: Illarionov SN. Ikar, Moscow, pp. 300-304
33. Uranova NA, Vikhrevva OV, Zimina IS, Rakhmanova VI, **Klintsova AY**, Black J, Greenough WT, Orlovskaya DD (2007) Abnormal patterns of cortical synaptic connectivity in schizophrenia. *Vestn Ross Akad Med Nauk*. 3:8-14 (in Russian).
34. Savage LM, Roland J, **Klintsova A**. (2007) Selective septohippocampal – but not forebrain amygdalar – cholinergic dysfunction in diencephalic amnesia. *Brain Research*, 1139:210-219.
35. Roegge CS, Morris JR, Villareal S, Wang VC, Powers BE, **Klintsova AY**, Greenough WT, Pessah IN, Schantz SL. (2006) Purkinje cell and cerebellar effects following developmental exposure to PCBs and/or MeHg. *Neurotoxicol Teratol*. 28(10), 74-85.
36. Guerri C, Pascual M, Garcia-Minguillan MC, Charness ME, Wilkemeyer MF, **Klintsova AY**, Goodlett CR, Greenough WT, Sakata-Haga H, Dominguez HD, Thomas JD (2005) Fetal Alcohol Effects: Potential Treatments from Basic Science. *Alcoholism: Clinical and Experimental Research*, 29(6): 1074-1079.
37. **Klintsova AY**, Dickson E, Yoshida R, Greenough WT (2004) Altered expression of BDNF and its high-affinity receptor TrkB in response to complex motor learning and moderate exercise. *Brain Research*, 1028(1):92-104.
38. Briones TL, **Klintsova AY**, Greenough WT (2004) Stability of synaptic plasticity in the adult rat visual cortex induced by complex environmental exposure. *Brain Research*, 1018: 130-135.
39. Weiler IJ, Spangler CC, **Klintsova AY**, Grossman AW, Kim SH, Bertaina-Anglade V, Khaliq H, de Vries FE, Lambers FA, Hatia F, Base CK, Greenough WT (2004) Fragile X mental retardation protein is necessary for neurotransmitter-activated protein translation at synapses. *Proc Natl Acad Sci U S A*, 101 (50):17504-9.
40. Black J, Kodish IM, Grossman AW, **Klintsova AY**, Orlovskaya DD, Vostrikov V, Uranova N, Greenough WT. (2004) Quantitative Pathology of Layer V Pyramidal Neurons in Schizophrenic Prefrontal Cortex. *Am J of Psychiatry*, 161(4):742-4.
41. Roegge CS, Wang VC, Powers BE, **Klintsova AY**, Villareal S, Greenough WT, Schantz SL. (2004) Motor Impairment in Rats Exposed to PCBs and Methylmercury During Early Development. *Toxicol Sci*, 77(2):315-24.
42. F. Angenstein, R.E. Settlage, J.E. Kacharina, S.T. Moran, S.-C. Ling, **A. Klintsova**, J. Eberwine, D.F. Hunt, W.T. Greenough. RACK1, a receptor for activated C kinase, links metabotropic glutamate receptor activation with dendritic translational control. (2002) *J Neurosci*, 22(20):8827-37.
43. **Klintsova AY**, Scamra C., Hoffman M., Goodlett CR., Napper RMA and WT. Greenough. Therapeutic effect of complex motor skill learning on binge-like postnatal alcohol-induced motor performance deficits: II. Quantitative Study of Synaptic Plasticity Using Unbiased Stereology.(2002) *Brain Research*, 937, p. 83-93.
44. J.D.Churchill, A.W.Grossman, S.A.Irwin, R.Galvez, **A.Y.Klintsova**, I.J.Weiler, W.T.Greenough. (2002) A Converging-Methods Approach to Fragile X Syndrome. *Dev. Psychobiol*, 40:323-338.
45. Greenough, W.T., **Klintsova, A.Y.**, Irwin, S.A., Galvez, R., Bates, K.E., and Weiler, I.J. (2001) Synaptic regulation of protein synthesis and the fragile X protein. *PNAS*, 98: 7101-7106.
46. E.P.Riley, J.D.Thomas, C.R.Goodlett, **A.Y.Klintsova**, W.T.Greenough, B.L.Hungund, F.Zhou, Y.Sari, T.Powrozek, T.-K.Li. (2001) Fetal Alcohol Effects: Mechanisms and Treatment. *Alcoholism: Clinical and Experimental Research*, v.25, 5, 110S-116S.
47. Magin RL, Lee JK, **Klintsova A**, Carnes KI, Dunn F. Biological effects of long-duration, high-field (4 T) MRI on growth and development in the mouse. *J Magn Reson Imaging*. 2000 Jul;12(1):140-9. doi: 10.1002/1522-2586(200007)12:1 PMID: 10931573
48. **A.Y.Klintsova**, C.R.Goodlett, W.T.Greenough. (1999) Therapeutic motor training ameliorates cerebellar effects of postnatal binge alcohol. *Neurotoxicology and Teratology*, 22, 125-132.
49. **A.Y.Klintsova**, W.T.Greenough. (1999) Synaptic plasticity in cortical systems. *Current Opinions in Neurobiology*, v.9, p.203-208. PMID: 10322189
50. T.A. Jones, N. Hawrylak, **A.Y. Klintsova**, W.T. Greenough. (1998) Brain Damage, Behavior, Rehabilitation, Recovery, and Brain Plasticity. *Mental Retardation and Developmental Disabilities Research Reviews*, 4, 231-237.
51. **A.Y. Klintsova**, R.M. Cowell, R.A. Swain, R.M.A. Napper, C.R. Goodlett, W.T.Greenough. (1998) Therapeutic effect of complex motor skill learning on binge-like postnatal alcohol-induced motor performance deficits: I. Behavioral results. *Brain Research*, 800(1), p. 48-61.
52. N.S.Waters, **A.Y.Klintsova**, T.C.Foster. (1997) Insensitivity of the hippocampus to environmental stimulation during postnatal development. *J. Neuroscience*, 17(20), p. 7967-7973.
53. **A.Y.Klintsova**, J.T.Matthews, C.R.Goodlett, R.M.A.Napper, W.T.Greenough. (1997) Therapeutic motor training increases parallel fiber synapse number per Purkinje neuron in cerebellar cortex of rats given postnatal binge alcohol exposure: Preliminary report. *Alcoholism: Clinical and Experimental Research*, v.21, No. 7, 1257-1263.
54. I.J.Weiler, S.A.Irwin, **A.Y.Klintsova**, C.M.Spencer, A.D.Brazelton, K.Miyashiro, T.A.Comery, B.Patel, J.Eberwine, W.T. Greenough. (1997) Fragile X mental retardation protein is translated near synapses in response to neurotransmitter activation. *Proc. Natl. Acad. Sci. USA*, 94, p.5395-5400.
55. T.A.Jones, **A.Y.Klintsova**, V.L.Kilman, A.M.Sirevaag, W.T.Greenough. (1997) Induction of multiple synapses by experience in the visual cortex of adult rats. *Neurobiology of Learning and Memory*, 68, p.13-20.
56. **Klintsova A.Y.**, Levy W.B., Desmond N.L. (1995) Astrocytic volume fluctuates in the hippocampal CA1 region across the estrous cycle. *Brain Research*, 690, p. 269-274.
57. **Klintsova A.Y.**, Philpot B.D., Brunjes P.C. (1995) Expression of c-fos in pre- and postnatal development of the rat olfactory bulb. *Dev. Brain Research*, v.86, pp.114-122.
58. Philpot B.D., **Klintsova A.Y.**, Brunjes P.C. (1995) Oligodendrocyte/Myelin-Immunoreactivity in the developing olfactory system. *Neuroscience*, v.67, 4, pp.1009-1019.
59. Uranova, N.A., Orlovskaya, D.D., Apel, K., **Klintsova, A.Yu.**, Haselhorst, U., Schenk, H. (1991) Morphometric study of synaptic patterns in the rat caudate nucleus and hippocampus under haloperidol treatment. *Synapse*, v.7, pp.253-259.
60. Burbueva, G.S., Androsova, L.V., **Klintsova, A.Yu.** (1988) The influence of Psychotropic Drugs on the Brain Tubulin. *J.of Neuropath. & Psychiat.*, v.88, 5 (in Russ.).

61. **Klintsova, A.Yu.**, Uranova, N.A., Schenk, H. and Haselhorst U. (1990) Synaptic Plasticity in Rat's Medial Prefrontal Cortex under Chronic Haloperidol Treatment Produced Behavioral Sensitization. *J. Hirnforsch.*, v.31, 2 (in Engl.), 175-179.
62. Uranova, N.A., **Klintsova, A.Yu.**, Schenk, H. and Haselhorst U. (1989) The effects of Amphetamine on Synaptic Plasticity in Rat's Medial Prefrontal Cortex. *J. Hirnforsch.*, v.30, 1 (in Engl.),45-50.
63. **Klintsova, A.Yu.**, Uranova, N.A., Schenk, H., Haselhorst, U. and Istomin, V.V. (1989) The effects of Haloperidol on Synaptic Plasticity in Rat's Medial Prefrontal Cortex. *J.Hirnforsch.*, v.30, 1 (in Engl.), 51-57.
64. **Klintsova, A.Yu.**, Uranova, N.A. (1987) The effects of Haloperidol on the Ultrastructure of some structures of Dopaminergic system of the brain. *J. of Neuropath. & Psychiat.*, v.87, 7 (in Russ.).
65. **Klintsova, A.Yu.**, Uranova, N.A., Schenk, H. and Haselhorst U. (1986) Ultrastructure of the synapses in Tuberculum olfactorium under the haloperidol treatment. In: *Scientific publications of the Institute of Brain, Acad. Med. Sci. USSR*, (in Russ.).
66. Uranova, N.A., and **Klintsova, A.Yu.** (1986) Ultrastructure of the synapses of Helix pomatia ganglions. *Arch. anat., histol. and embryol.*, v.5 (in Russ.)

## II. BOOK CHAPTERS:

1. Z.H. Gursky and **A.Y. Klintsova**. Frontal Lobe Dysfunction after Developmental Alcohol Exposure - Implications from Animal Models. Chapter 15, pp 139-148. In: R.R. Watson and S.Zibadi "Addictive Substances and Neurological Disease", Academic Press, Elsevier, Inc., 2017.
2. K.E.Boschen and **A.Y.Klintsova**. Neurotrophins in the Brain: Interaction with Alcohol Exposure during Development. In: G. Litwack, Ed., "Vitamins and Hormones", v. 104 "Neurotrophins", pp 197-242. Academic Press/Elsevier, 2017. PMID: 28215296
3. W.T. Greenough, J.E. Black, **A.Y. Klintsova**, K.E. Bates, I.J. Weiler. Experience and Plasticity in Brain Structure: Possible Implications of Basic Research Findings for Developmental Disorders. In: S.H. Broman and J. M. Fletcher, Eds., "Neurobehavioral Consequences of Early Brain Disorders", Oxford University Press, 1999.

## III. SUBMITTED (UNDER REVIEW):

1. Z.H. Gursky, L.M. Savage and **A.Y.Klintsova** (2021) Executive functioning-specific behavioral impairments in a rat model of human third trimester binge drinking implicate prefrontal-thalamo-hippocampal circuitry in Fetal Alcohol Spectrum Disorders. *Behavioral Brain Research*, (accepted)
2. Z.H. Gursky and **A.Y.Klintsova** (2021) Changes in representation of thalamic projection neurons within prefrontal-thalamic-hippocampal circuitry in a rat model of third trimester binge drinking *Brain Sciences*, (accepted with minor revisions)

## ABSTRACTS PRESENTED AND PUBLISHED FROM KLINTSOVA LAB IN 2020-2021

### \* - undergraduate student

1. KA Milbocker; EK Brengel\*; GL LeBlanc\*; SK Hekmatyar; AY Klintsova. Alcohol Exposure During the Brain Growth Spurt Delays Myelination of the Corpus Callosum in Adolescent Rats: A Multimodal Longitudinal Study. Abstract submitted to be presented at the annual Research Society on Alcoholism meeting, June 2021 (virtual).
2. S. Kim, A.Y. Klintsova, A.L. Griffin. Delay-dependent spatial working memory deficits in a rodent model of third trimester alcohol exposure. Abstract submitted to be presented at the annual Research Society on Alcoholism meeting, June 2021 (virtual).
3. K.A. Milbocker, G.L. LeBlanc\*, E.K. Brengel\*, K. Hekmatyar, A.Y. Klintsova. Detecting myelin-dependent plasticity: therapeutic effect of an aerobic exercise intervention on corpus callosum myelination in a rodent model of Fetal Alcohol Spectrum Disorders. Poster presented at the Annual Society for Neuroscience Meeting, January 2021 (virtual).
4. S. Kim, A.Y. Klintsova, A.L. Griffin. Investigating spatial working memory deficits in a rodent model of Fetal Alcohol Spectrum Disorder. Poster presented at the Annual Society for Neuroscience Meeting, January 2021 (virtual).
5. K.A. Milbocker; M.M. Callahan\*; K. Hekmatyar, A.Y. Klintsova. Structural Integrity of Corpus Callosum in Adolescent Rats is Altered by Alcohol Exposure on PD4-9: A diffusion Tensor Imaging (DTI) Study. Abstract presented at the annual Research Society on Alcoholism meeting, June 2020 (virtual).

## INVITED PRESENTATIONS AND LECTURES (SINCE JOINING THE UNIVERSITY OF DELAWARE)

1. 2004 12<sup>th</sup> ISBRA Congress, Mannheim, Germany (symposium speaker)
2. 2005 Department of Neurobiologie des Processus Adaptatifs, Universite Paris VI Pierre et Marie Curie (invited lecture)
3. 2005 Biomechanics and Movement Science Program seminar, University of Delaware, invited speaker, November 4<sup>th</sup>
4. 2006 Resilience in Children, New York Academy of Sciences Meeting, February, Arlington, VA
5. 2006 International Society for Biomedical Research on Alcoholism (ISBRA), World Congress, September, (symposium – invited speaker)
6. 2006 Department of Anatomy, University of Otago, Dunedin, New Zealand, November
7. 2007 American Physical Therapy Association Meeting, Pediatric Section, Boston, MA, February 14
8. 2007 International conference "Structural and functional bases of brain plasticity", Russian Academy of Medical Sciences, Moscow, Russia. October 24, 2007.
9. 2008 University of Manitoba, Winnipeg, Canada. Invited lecture in the Department of Psychology. February 27.
10. 2008 Manitoba Institute of Child Health, University of Manitoba Medical School, Winnipeg, Canada. Invited lecture, February 28.
11. 2009 Delaware State University, Invited Talk, November 14<sup>th</sup>, 2009.
12. 2009 Indy Society for Neuroscience Annual Meeting, Invited Talk, October 30<sup>th</sup>, 2009
13. 2010 Children's Hospital of Philadelphia, University of Pennsylvania, Invited Talk, February 5<sup>th</sup>, 2010.
14. 2013 Department of Neurobiologie des Processus Adaptatifs, Universite Paris VI Pierre et Marie Curie (invited lecture), January 2013
15. 2013 Research Society on Alcoholism Annual Meeting, Orlando, FL, Symposium talk, June 2013.

16.	2013	14 <sup>th</sup> ESBRA Congress, Warsaw, Poland (symposium speaker), September 8 <sup>th</sup>
17.	2013	FENS Regional Meeting, Prague, Czech Republic (symposium speaker), September 12 <sup>th</sup>
18.	2013	SUNY-Binghamton, Invited Talk, October 11 <sup>th</sup> , 2013.
19.	2013	Invited talk at the Florey Institute, University of Melbourne, Australia, November 12 <sup>th</sup>
20.	2013	Invited talk at the University of Otago, Dunedin, New Zealand, November 22 <sup>nd</sup>
21.	2014	Keynote speaker, Midwest Regional Fetal Alcohol Spectrum Disorder Training Center Summit, Kansas City, MO, March 21 <sup>st</sup>
22.	2014	Symposium speaker, Research Society on Alcoholism Annual Meeting, Seattle, WA, June 2014
23.	2014	Symposium presenter, Federation of European Neuroscience Societies Meeting, Milan, Italy, July 2014
24.	2015	Session Speaker, Winter Conference on Brain Research, Big Sky, Montana, January 2015
25.	2016	Southern Illinois University, Invited Talk, March 7 <sup>th</sup>
26.	2016	National Aging Institute, Baltimore, Invited Talk, May 23 <sup>rd</sup>
27.	2016	SUNY-Stony Brook, Invited Talk, October 13 <sup>th</sup>
28.	2016	UD Cognitive Science Get-Together, Invited Talk, November 28 <sup>th</sup>
29.	2017	Session Speaker, 50 <sup>th</sup> Winter Conference on Brain Research, Big Sky, Montana, January 2017
30.	2017	Session Speaker, Research Society on Alcoholism Annual Meeting, Denver, CO, June 25 <sup>th</sup>
31.	2017	Invited talks at the Universite Nice Sophia Antipolis, Nice, France, July 14 <sup>th</sup> and 17 <sup>th</sup>
32.	2017	Invited lecture at the Annual Summer Symposium "Neurobiology of Addiction", St. Petersburg, Russia, July 25 <sup>th</sup>
33.	2017	Invited seminar at the National Mental Health Research Center, Moscow, Russia, July 21 <sup>st</sup>
34.	2018	Invited seminar, Washington University – St. Louis, March 9, 2018
35.	2018	Invited symposium speaker, INS (International Neuropsychological Society) Meeting – Prague, Czech Republic, July 19, 2018

## PROFESSIONAL ACTIVITIES – ORGANIZED SYMPOSIA:

2019	First UD Neuroscience Symposium, co-organized and co-chair, February 2019
2017	Research Society on Alcoholism Annual Meeting, FASDSG symposium, Organizer, Denver, CO, June 2017 Chair, Panel session "Brain Plasticity: Little Things that Matter". 50 <sup>th</sup> Annual Winter Conference on Brain Research, Big Sky, Montana, January 28-February 2, 2017
2016	The 39 <sup>th</sup> Research Society on Alcoholism Annual Meeting, FASDSG symposium, Organizer, New Orleans, LA, June 2016
2015	The 38 <sup>th</sup> Research Society on Alcoholism Annual Meeting, FASDSG symposium, Organizer, San Antonio, TX, June 2015 Chair, "Experience-related plasticity in the mammalian brain: A tribute to William Greenough", 48 <sup>th</sup> Annual Winter Conference on Brain Research, Big Sky, Montana, January 24-30, 2015
2013	The Delaware Society for Neuroscience Research Symposium and Retreat, Organizer and Presenter, Nemours Children Hospital, DE, May 2013 Co-Chair, "Restoring the Alcohol-Damaged Brain", Symposium at RSoA, Orlando, FL, June 2013
2010	Chair, "Rehabilitation vs Neuroprotection: Use of Exercise, Environmental and Dietary Therapies to Reduce Brain Damage", 43 <sup>rd</sup> Annual Winter Conference on Brain Research, Breckenridge, Colorado, January 23-30, 2010
2006	Chair, "Fetal Alcohol and Intervention: To Live and To Die For?", International Society for Biomedical Research on Alcoholism (ISBRA), World Congress, (symposium)
2000	Symposium organizer and Chair, "Neuroplasticity after Developmental Exposure to Alcohol", Research Society on Alcoholism (RSoA), 23 <sup>rd</sup> Annual Meeting, Denver, Colorado
1999	Chair, "From Jogging to High Wire Acrobatics: Brain Adaptation in Response to Exercise and Motor Skill Learning" (panel), Winter Conference on Brain Research (WCBR), Snowmass Village, Colorado

## TEACHING:

### University of Delaware:

Spring 2021	<b>Sabbatical Leave</b>
Spring 2016-2020:	Introduction to Neuroscience Honors (NSCI320-080)
Spring 2016, 2020:	Seminar <b>Neuroplasticity</b> (NSCI633)
Fall 2016, Spring 2019:	Advanced Neuroanatomy (NSCI626)
Fall 2015:	Introduction to Neuroscience (NSCI320-010); Integrative Neuroscience I (NSCI629)
Spring 2015:	Advanced Research in Neuroscience (NSCI368)
Fall 2014:	Advanced Neuroanatomy ( <b>new course development</b> ) (NSCI626-010 and NSCI626-011); Research in Neuroscience (NSCI368)
Spring 2014:	Introduction to Neuroscience Honors (NSCI320-080); Brain and Behavior (PSYC314)
Fall 2013:	<b>Sabbatical leave</b>
Spring 2013:	Introduction to Neuroscience (PSYC320)
Fall 2012:	Brain and Behavior (PSYC314); Integrative Neuroscience I (PSYC667)
Spring 2012:	Seminar <b>Neuroplasticity</b> (PSYC 467/667)
Fall 2011:	Brain and Behavior (PSYC314)
Spring 2011:	Brain and Behavior (PSYC314); Introduction to Neuroscience (PSYC320)
Fall 2010:	Brain and Behavior (PSYC314); Integrative Neuroscience I (PSYC667)
Spring 2010:	Seminar <b>Neuroplasticity</b> (PSYC 467/667) – <b>new seminar</b>

<b>Fall 2009:</b>	Physiological Psychology (PSYC318);
<b>Summer 2009:</b>	Developmental Neurobiology (course taught in the University of Otago, New Zealand)
<b>Spring 2009:</b>	Introduction to Neuroscience (PSYC320, honors section)
<b>Fall 2008:</b>	Physiological Psychology (PSYC318); Integrative Neuroscience I (PSYC667)
<b>Spring 2008:</b>	Physiological Psychology (PSYC318)
<b>Fall 2007:</b>	Biological Bases of Behavior (PSYC316)
<b>Spring 2007:</b>	Biological Bases of Behavior (PSYC316)
<b>Fall 2006:</b>	<i>no teaching (research sabbatical)</i>
<b>Spring 2006:</b>	Biological Bases of Behavior (PSYC316)
<b>Fall 2005:</b>	Integrative Neuroscience I (PSYC667/867) – <i>new course development</i>
<b>Spring 2005:</b>	Biological Bases of Behavior (PSYC367)

## RESEARCH SUPERVISION:

Graduate students (6), undergraduate students (30), Senior Thesis research (12)

### Graduate students:

Jennifer Helfer (MS)  
 Lee Whitcher (MS)  
 Kerry Criss (MS, 2015)  
 Michael Ruggiero (MS, 2016)  
 Gillian Hamilton (2007-2012) defended her PhD on October 8, 2012  
 Karen Boschen (2010-2016) defended her PhD on April 8, 2016  
 Zachary Gursky (2014 – 2020) defended his PhD on October 13, 2020  
 Katrina Milbocker (2017 – current)  
 SuHyeong Kim (2019 – current)  
 Ian Smith (2020-current)

### Senior Thesis students (since 2010):

Alejandro Morales (2011-2012) - Neuroscience Undergraduate Senior Thesis: "Effects of neonatal alcohol exposure on synaptic integration of newly born granule cells in the adult dentate gyrus"  
 Mia Castiglione (2012-2013) - Neuroscience Undergraduate Senior Thesis: "Effect of voluntary exercise on c-fos expression in the hippocampus of rats exposed to alcohol neonatally"  
 James Delorme (2012-2013) - Neuroscience Undergraduate Senior Thesis: "Behavior in a complex environment following voluntary exercise in rats exposed neonatally to alcohol"  
 Samuel Modlin (2013-2014) - Neuroscience Undergraduate Senior Thesis: "Effect of neonatal alcohol exposure on c-Fos expression in hippocampal CA3 following exploration of novel context in adolescence"  
 Michael Ruggiero (2014-2015) - Neuroscience Undergraduate Senior Thesis: "Effect of PD4-9 alcohol exposure on hippocampal microglial activation in the developing rat brain"  
 Sarah McKeown (2014-2015) - Neuroscience Undergraduate Senior Thesis: "Number and morphology of immature neurons in the adult rat dentate gyrus following developmental alcohol exposure"  
 Shaqran Shareek (2015-2016) – Neuroscience Undergraduate Senior Thesis: "Apoptosis in the Prefrontal Cortex Following a One Day Binge Ethanol Exposure"  
 Zubin Hussain (2015-2016) – Neuroscience Undergraduate Senior Thesis: "Effects of Postnatal Day 4 Binge Ethanol Exposure on Hippocampal Cell Proliferation Rate During Early Development"  
 Julia Johansson (2016-2018) – UD Science&Engineer Scholar, Neuroscience Senior Thesis defended in Spring, 2018  
 Emma Spillman (2016 – 2018) - UD Science&Engineer Scholar, Neuroscience Senior Thesis defended in Spring, 2018  
 Natalie Ginn (2016 – 2019) - UD Science&Engineer Scholar, Senior Thesis defended May 14, 2019  
 Eric Brengel (2017 – current)  
 Gillian LeBlanc (2017 – current)

## SYNERGISTIC ACTIVITIES:

### Institutional Service

- Interdisciplinary Neuroscience PhD Program, Co-Chair of the Development Committee (September 2018 – current)
- IACUC, Chair (September 2016 - August 2017)
- IACUC, Member (September 2010 – August 2020)
- Health Science Advisory and Evaluation Committee, Member, 2004 -2014
- International Travel Award Committee, member – Spring 2005
- UD Senior Thesis Program, Member of the Board of Senior Thesis Readers (2010-current)
- Ph.D. thesis committee, Elena Kokkoni (Dept. of Physical Therapy)

### Departmental Service

- Behavioral Neuroscience Area director (December 2016 – current)
- Mentor of a tenure-track Assistant Professor, Dr. Jackie Schwarz, 2013 – 2019
- Chair of the faculty (tenure-track) search committee (2011)
- Faculty Search Committee for Behavioral Neuroscience position (2006, 2008, 2009, 2018)
- Member of the Department Chair search committee, Psychology department (2010, 2013)

Service to the Scientific Community outside the University of Delaware

- President of the Fetal Alcohol Spectrum Disorders Study Group (FASDSG), 2017-2018, Vice-President 2016-2017, Secretary 2014-2015, Treasurer 2015-2016
- NIH 2020/01 ZRG1 F02A Fellowships: Behavioral Neuroscience/Scientific Review Group (October 2019, February 2020)
- NSF ad-hoc grant reviewer (2007, 2010, 2013, 2015)
- NIH Behavioral Neuroscience Fellowship Study Section (F02A) – October 2019
- NIH (NIAAA) Alcohol Research Centers (ARC) Review, Special Panel (reviewer) – May 2018
- NIH (NIAAA) AA-4 1 Neuroscience Review Subcommittee (ad hoc reviewer) (2010, 2011, 2013, 2014, 2015, 2016)
- NIH (NIMH) ZMH1 ERB-L Review panel (ad hoc reviewer) (2010)
- NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants Program Reviewer (2016)
- The Royal Society (Great Britain), Reviewer for the Dorothy Hodgkin Fellowships 2018 (March 2018)
- The King's Health Partners R&D Challenge Fund, invited reviewer (June 2018)
- Grants and Fellowships F.R.S.-FNRS (Belgium) – invited reviewer (March 2018; March 2020)
- National Academy of Sciences (Poland) - invited reviewer (March 2017, 2019, 2020)
- Reviewer for the Netherlands Organization for Scientific Research (NOW) (Earth and Life Sciences) (2008)
- Peer reviewer for *Acta Neurobiologicae Experimentalis*, *Alcohol*, *Alcoholism: Clinical and Experimental Research(ACER)*, *Behavioral Neuroscience*, *Biological Psychiatry*, *Brain*, *Brain Research*, *European Journal of Neuroscience*, *Frontiers in Behavioral Neuroscience*, *Glia*, *International Journal of Developmental Neuroscience*, *International Journal of Neuropsychopharmacology*, *Neurological Sciences*, *Neuropsychologia*, *Neuroscience*, *Neurobiology of Aging*, *NeuroReport*, *PLOS One*, *Proceedings of the National Academy of Science (PNAS)*, *Synapse*