# CURRICULUM VITAE
# MATTHEW S. GOODWIN, Ph.D.

## EDUCATION

| | | |
|---|---|---|
| Postdoc | 2010 | Affective Computing Group, Media Lab, Massachusetts Institute of Technology, Cambridge, MA |
| Ph.D. | 2008 | Behavioral Science, Dept. of Psychology, University of Rhode Island, Kingston, RI |
| M.A. | 2005 | Experimental Psychology, Dept. of Psychology, University of Rhode Island, Kingston, RI |
| B.A. | 1998 | Psychology, Dept. of Psychology, Wheaton College, Norton, MA |
| Pre-Bachelor | 1994 | Psychology & Philosophy, St. Clare's, Oxford, UK |

## CURRENT ACADEMIC APPOINTMENTS

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|---|---|
| 2018 - | Visiting Associate Professor, Dept. of Biomedical Informatics, Harvard Medical School, Boston, MA |
| 2017- | Interdisciplinary Associate Professor (with tenure), Dept. of Health Sciences, Bouvé College of Health Sciences (75%), College of Computer & Information Science (25%), Northeastern University, Boston, MA |
| 2008- | Adjunct Associate Research Scientist, Dept. of Psychiatry & Human Behavior, Brown University, Providence, RI |

## PREVIOUS ACADEMIC APPOINTMENTS

| | |
|---|---|
| 2011-2017 | Visiting Assistant Professor, Media Lab, Massachusetts Institute of Technology, Cambridge, MA |
| 2011-2017 | Interdisciplinary Assistant Professor (tenure track), Dept. of Health Sciences, Bouvé College of Health Sciences (75%), College of Computer & Information Science (25%), Northeastern University, Boston, MA |
| 2008-2011 | Director of Clinical Research, Media Lab, Massachusetts Institute of Technology, Cambridge, MA |
| 1999-2007 | Research Associate, Dept. of Psychology, Brown University, Providence, RI |

## OTHER PROFESSIONAL EXPERIENCE

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|---|---|
| 2005-2011 | Associate Director of Research, The Groden Center, Inc., Providence, RI |
| 1997-1998 | Clinical Intern, Mind/Body Medical Institute, Harvard Medical School, Boston, MA |

## HONORS AND DISTINCTIONS

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|---|---|
| 2016 | Simons Investigator, Massachusetts Institute of Technology's Simons Center for the Social Brain |
| 2015 | Aspen Ideas Scholar, Aspen Institute |
| 2015 | Career Contribution Award, Princeton Autism Lecture Series |
| 2014 | Hariri Award for Transformative Computational Science, Hariri Institute for Computing and Computational\ Science & Engineering |
| 2013 | Nomination, Janet Taylor Spence Award for Early Career Contributions, Association for Psychological Science |
| 2012 | Nomination, Young Leader Award, Robert Wood Johnson Foundation |
| 2012 | Nomination, Rising Star, Association for Psychological Science |
| 2011 | Attendee, Mobile Health (mHealth) Institute, National Institutes of Health |
| 2010 | NIH Loan Repayment Award, Extramural, Pediatric Research (Renewed 2011, 2012) |
| 2009 | Best Paper Award, 11th International Conference on Ubiquitous Computing (Ubicomp), 1% award rate |
| 2008 | Peter Merenda Prize in Statistics and Research Methodology, Dept. of Psychology, University of Rhode Island |
| 2007 | Dissertation Award, Society of Multivariate Experimental Psychology |
| 1998 | Wheaton Scholar/Psi Chi, Wheaton College, Norton, MA |

## SCHOLARSHIP AND RESEARCH

Publications

Relevant Statistics: h-index: 24; i10-index: 43; Citations: 1,741 [source: scholar.google.com, 06/11/18]

Refereed Original Articles (*first or senior author; + lead author who is a student or advisee)

1. Palumbo, RV, Ahmed, AA, Wilder-Smith, O, Akcakaya, M, Malia, KA, Tugce, B, Velicer, WF, & **Goodwin, MS** (under review). Timescale decomposition: a novel strategy for visually assessing variability in time series data. Submitted to *Psychological Methods*. +/*
2. Wilder-Smith, O, Palumbo, RV, Sullivan, JC, & **Goodwin, MS** (under review). Time-varying dynamical systems modeling: a new method for tracking interpersonal synchrony. Submitted to *Multivariate Behavioral Research*. +/*
3. Amoss, TR, Leong, T, Evans, A, Ousley, O, Herrington, JD, Lecavalier, L, **Goodwin, MS**, Hofmann, SG, & Scahill, L (under review). A pilot study of cardiovascular reactivity in children with autism spectrum disorder. Submitted to the *Research in Autism Specrum Disorders*.
4. Manfredonia, J, Bangerter, A, Manyakov, NV, Ness, S, Lewin, D, Skalkin, A, **Goodwin, MS**, Dawson, G, Hendren, R, Leventhal, B, Shic, F, Pandina, G (under review). Automatic recognition of posed facial expression of emotion in individuals with autism spectrum disorder. Submitted to *Journal of Autism and Developmental Disorders*.
5. Abi Bangerter, A, Ness, S, Lewin, D, Aman, MG, Esbensen, AJ, **Goodwin, MS**, Dawson, G, Hendren, R, Leventhal, B, Shic, F, Ople, M, Ho, KF, Pandina, G (under review). Clinical validation of the Autism Behavior Inventory – parent-rated assessment of core and associated symptoms of autism spectrum. Submitted to *Autism: International Journal of Research and Practice*.
6. Hawley, K, Huang, J, **Goodwin, MS**, Diaz, D, Palumbo, RV, de Sa, VR, Birnie, KA, Chambers, CT, & Craig KD (in press). Youth and parent appraisals of participation in a study of spontaneous and instigated pediatric clinical pain. Submitted to *Ethics & Behavior*.
7. Baucom, BRW, Baucom, KJW, Hogan, JN, Crenshaw, AO, Bourne, SE, Crowell, SE, Georgiou, P & **Goodwin, MS** (in press). Cardiovascular reactivity to marital conflict in laboratory and naturalistic setting. *Family Process*. *
8. Heathers JA, Fayn K, Silvia PJ, Tiliopoulos N, & **Goodwin MS** (2018). The voluntary control of piloerection. PeerJ Preprints 6:e26594v1 https://doi.org/10.7287/peerj.preprints.26594v1. */+
9. Palumbo, R, Marraccini, M, Weyandt, L, Wilder-Smith, O, McGee, H, & **Goodwin, MS** (2017). Interpersonal autonomic physiology: A systematic review of the literature. *Personality and Social Psychology Review*, 21, 99-141. */+
10. Kleckner, IR, Jones, RM, Wilder-Smith, O, Wormwood, JB, Akcakaya, M, Quigley, KS, Lord, C, & **Goodwin, MS** (2017). Simple, transparent and flexible automated quality assessment procedures for ambulatory electrodermal activity. *IEEE Transactions on Biomedical Engineering*, 99, 1-8. *
11. Kelsey, M, Akcakaya, M, Kleckner, IR, Palumbo, RV, Barrett, LF, Quigley, K, & **Goodwin, MS** (2017). Applications of sparse recovery and dictionary learning to enhance analysis of electrodermal activity data. *Biomedical Signal Processing and Control*, 40, 58-70. *
12. Ness, S, Nikolay V. Manyakov, NV, Bangerter, A, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Dawson, G, Janvier, YM, **Goodwin, MS**, Hendren, R, Leventhal, B, Shic, F, Cioccia, W, & Pandina, G (2017). JAKE™ multimodal data capture system: Insights from an observational study of autism spectrum disorder. *Frontiers in Neuroinformatics*, 11, 1-15.
13. Bangerter A, Ness, S, Aman, M, Esbensen, A, **Goodwin MS**, Dawson, G, Hendren, R, Leventhal, B, Khan, A, Opler, M, Harris, A, & Pandina, G. (2017). Autism Behavior Inventory: A novel tool for assessing core and associated symptoms of autism spectrum disorder. *Journal of Child and Adolescent Psychopharmacology*, 27, 814-822.
14. Großekathöfer U, Manyakov NV, Mihajlović V, Pandina G, Skalkin A, Ness S, Bangerter A, & **Goodwin MS** (2017). Automated detection of stereotypical motor movements in autism spectrum disorder using recurrence quantification analysis. *Frontiers in Neuroinformatics*, 11:9. doi: 10.3389/fninf.2017.00009. *

15. Prince, EB, Kim, ES, Wall, CA, Gisin, E, **Goodwin, MS**, Schoen Simmons, E, Chawarska, K, & Shic, F (2017). The relationship between autism symptoms and arousal level in toddlers with ASD, as measured by electrodermal activity. *Autism Research*, 21, 504-508.
16. Chin, I, **Goodwin, MS**, Vosoughi, S, Roy, D & Naigles, L (2017). Dense home-based recordings reveal typical and atypical development of tense-aspect in a child with delayed language development. *Journal of Child Language*, 6, 1-34.
17. Bone, D, Bishop, S, Black, M, **Goodwin, MS**, Lord, C, & Narayanan, S (2016). Use of machine learning to improve autism screening and diagnostic instruments: Effectiveness, efficiency, and multi-instrument fusion. *Journal of Child Psychology and Psychiatry*, 57, 927-937.
18. Shic, F. & **Goodwin, MS** (2015). Introduction to technologies in the daily lives of individuals with autism. *Journal of Autism and Developmental Disorders*, 45, 3773-6. *
19. Shic, F, Smith, D, Horsburgh, B, Hollander, E, Rehg, JM, & **Goodwin, MS** (2015). Catalysts for change: The role of small business funders in the creation and dissemination of innovation. *Journal of Autism and Developmental Disorders*, 45, 3900-4. *
20. Sikka, K, Ahmed, A, Diaz, D, **Goodwin, MS**, Craig, KD, Bartlett, MS, & Huang, JS (2015). Automated assessment of children's post-operative pain using computer vision. *Pediatrics*, 136, 1-8.
21. Bone, D, **Goodwin, MS**, Black, M, Lee, C, Audhkhasi, K, & Narayanan, S (2015). Applying machine learning to facilitate autism diagnostics: Pitfalls and promises. *Journal of Autism and Developmental Disorders*, 45, 1121-36.
22. Lydon, S, Healy, O, Reed, P, Hughes, B, & **Goodwin, MS** (2014). A systematic review of physiological reactivity to stimuli in autism. *Developmental Neurorehabilitation*, 1-21. *
23. Woodard, CR, **Goodwin, MS**, Zelazo, PR, Aube, D, Scrimgeour, M, Ostholthoff, T, & Brickley, M (2012). A comparison of autonomic, behavioral, and parent-report measures of sensory sensitivity in young children with autism. *Research in Autism Spectrum Disorders*, 6, 1234-1246.
24. Chen, GM, Yoder, KJ, Ganzel, BL, **Goodwin, MS**, & Belmonte, MK (2012). Harnessing repetitive behaviours to engage attention and learning in a novel therapy for autism: An exploratory analysis. *Frontiers in Educational Psychology*, 3, 1-16.
25. Albinali, F, **Goodwin, MS**, & Intille, SS (2012). Detecting stereotypical motor movements in the classroom using accelerometry and pattern recognition algorithms. *Pervasive and Mobile Computing*, 8, 103-114.
26. Oberleitner, R, Reischl, U, Lacy, T, **Goodwin, MS**, & Spitalnick, JS (2011). Emerging use of behavior imaging for autism and beyond. *Future Visions on Biomedicine and Bioinformatics*, 1, 93-104.
27. **Goodwin, MS**, Intille, SS, Albinali, & Velicer, WF (2011). Automated detection of stereotypical motor movements. *Journal of Autism and Developmental Disorders*, 41, 770-782. *
28. Bolte, S, Golan, O, **Goodwin, MS**, & Zwaigenbaum, L (2010). What can innovative technologies do for autism spectrum disorders? *Autism*, 14, 155-159.
29. Fletcher, RR, Dobson, K, **Goodwin, MS**, Eydgahi, H, Wilder-Smith, O, Fernholz, D, Kuboyama, Y, Hedman, EB, Poh, M, & Picard, RW (2010). iCalm: Wearable sensor and network architecture for wirelessly communicating and logging autonomic activity. *IEEE Transactions on Information Technology in Biomedicine*, 14, 215-223.
30. Stroud, LR, Paster, RL, **Goodwin, MS**, Shenassa, E, Buka, S, Niaura, R, Rosenblith, JF, & Lipsitt, LP (2009). Maternal smoking during pregnancy and neonatal behavior: A representative community sample. *Pediatrics*, 123, 842-848.
31. Aloia, MS, **Goodwin, MS**, Velicer, WF, Arnedt, JT, Zimmerman, M, Skrekas, J, Harris, S, & Millman, RP (2008). Time series analysis of treatment adherence patterns in individuals with obstructive sleep apnea. *Annals of Behavioral Medicine*, 36, 44-53.
32. **Goodwin, MS** (2008). Enhancing and accelerating the pace of autism research and treatment: The promise of developing innovative technology. *Focus on Autism and Other Developmental Disabilities*, 23, 125-128. *
33. Höppner BB, **Goodwin, MS**, Velicer, WF, Mooney, ME, & Hatsukami, DK (2008). Detecting longitudinal patterns of daily smoking following drastic cigarette reduction. *Addictive Behavior*, 33, 623-639.

34. **Goodwin, MS**, Velicer, WF, & Intille, SS (2008). Telemetric monitoring in the behavior sciences. *Behavioral Research Methods*, 40, 328-341. *
35. Höppner BB, **Goodwin, MS**, Velicer, WF (2008). An applied example of pooled time series analysis: Cardiovascular reactivity to stressors in children with autism. *Multivariate Behavioral Research*, 42, 707-727.
36. **Goodwin, MS**, Groden, J, Velicer, WF, & Diller, A (2007). Brief report: Validating the stress survey schedule for persons with autism and other developmental disabilities. *Focus on Autism and Other Developmental Disabilities*, 22, 183-189. *
37. Woodard, C, Groden, J, **Goodwin, MS**, & Bodfish, J (2007). A placebo double-blind study of dextromethorphan for problematic behaviors in children with autism. *Autism*, 11, 29-41.
38. **Goodwin, MS**, Groden, J, Velicer, WF, Lipsitt, LP, Baron, MG, Hofmann, SG, & Groden, G (2006). Cardiovascular arousal in individuals with autism. *Focus on Autism and Other Developmental Disabilities*, 21, 100-123. *
39. Groden, J, **Goodwin, MS**, Lipsitt, LP, Hofmann, SG, Baron, MG, Groden, G, Velicer, WF, Plummer, B (2005). Assessing cardiovascular responses to stressors in individuals with autism spectrum disorders. *Focus on Autism and Other Developmental Disorde*r, 20, 244-252.
40. Woodard, C, Groden, J, **Goodwin, MS**, Shanower, C, & Bianco, A (2005). The treatment of the behavioral sequelae of autism with dextromethorphan: A case report. *Journal of Autism and Developmental Disorders*, 35, 515-518.
41. Friend, K, **Goodwin, MS**, & Lipsitt, LP (2004). Alcohol use and sudden infant death syndrome. *Developmental Review*, 24, 235-251.

Refereed Scientific Conference Papers

42. Xiaojing, X, Craig, K, Damaris, D, **Goodwin, MS**, Murat, A, Susam, BT, Huang, J, & de Sa, V (in press). Automated Pain detection in facial videos of children using human-assisted transfer learning. In *Proceedings of AIH18: Joint Workship on AI in Health*, July 13, Stockholm, Sweden.
43. Xiaojing, X, Susam, BT, Nezamfar, H, Craig, K, Diaz, D, Huang, J, **Goodwin, MS**, Akcakaya, M, & de Sa, V (in press). Automated pain detection in children using facial and electrodermal activity. In *Proceedings of AIH18: Joint Workship on AI in Health*, July 13, Stockholm, Sweden.
44. Susam, BT, Akcakaya, M, Nezamfar, H, Diaz, D, Xu, Cm de Sa, VR, Craig, KD, Huang, JS, & **Goodwin, MS** (2018). Automated pain assessment using electrodermal activity data and machine learning. In *Proceedings of Engineering in Medicine and Biology Society (EMBC),* 2018*,* 40th Annual Conference of the IEEE, July 17-21, Honolulu, HI, USA. */+*
45. **Goodwin, MS**, Ozdenizci, O, Tian, P, Cumpanasoiu, C, Guo, A, Stedman, A, Peura, C, Mazefsky, C, Siegel, M, Erdogmus, D, & Ioannidis, I (2018). Predicting proximal aggression onset in minimally-verbal youth with autism spectrum disorder using preceding physiological signals. In *Proceedings of PervasiveHealth '18*, 12th EAI International Conference on Pervasive Computing Technologies for Healthcare, May 21-24, 2018, ACM, New York, NY, USA. *
46. Ozdenizci, O Cumpanasoiu, C, Mazefsky, C, Siegel, M, Erdogmus, D, Ioannidis, I, & **Goodwin, MS** (2018). Time-series prediction of proximal aggression onset in minimally-verbal youth with autism spectrum disorder using physiological biosignals. In *Proceedings of Engineering in Medicine and Biology Society (EMBC),* 2018*,* 40th Annual Conference of the IEEE, July 17-21, Honolulu, HI, USA. */+
47. Kelsey, M, Akcakaya, M, Palumbo, R, Urbaneja, A, Huang, J, Kleckner, I, Feldman Barrett, L, Quigley, K, & **Goodwin, MS** (2017). Artifact detection in electrodermal activity using sparse recovery. In *Proceedings of SPIE Commercial Scientific Sensing and Imaging*, 2017. *
48. Ahmed, A & **Goodwin, MS** (2017). Automated detection of facial expressions during computer-assisted instruction in individuals on the autism spectrum. In *Proceedings of CHI 2017*. +/*
49. Malia, K, Dallal, A, Eldeeb, S, Akcakaya, M, Gerard, C, Kleckner, I, Quigley, K, & **Goodwin, MS** (2016). Dictionary learning and sparse recovery for EDA analysis and classification. In *Proceedings of SPIE International Society for Optics and Photonics*. *

50. Jeong, S, Logan, D, **Goodwin, MS**, Graca, S, O'Connell, B, Goodenough, H, Anderson, L, Stenquist, N, Fitzpatrick, K, Zisook, M, Plummer, L, Breazeal, C, & Weinstock, P (2015). A social robot to mitigate stress, anxiety, and pain in hospital pediatric care. In *Proceedings of the 10th ACM/IEEE International Conference on Human-Robot Interaction*.
51. Ciptadi, A, **Goodwin, MS**, & Rehg, JM (2014). Movement pattern histogram for action recognition and retrieval. In *Proceedings of the European Conference on Computer Vision 2014* (EECV 2014).
52. **Goodwin, MS**, Haghighi, M, Tang, Q, Akcakaya, M, Erdogmus, D, & Intille, S (2014). Moving towards a real-time system for automatically recognizing stereotypical motor movements in individuals on the autism spectrum using wireless accelerometry. In *Proceedings of the 2014 Pervasive and Ubiquitous Computing* (Ubicomp 2014). *
53. Chaspari, T, **Goodwin, MS**, Wilder-Smith, O, Gulsrud, A, Mucchetti, C, Kasari, C, & Narayanan, S (2014). A non-homogeneous poisson process model of skin conductance responses integrated with observed regulatory behaviors for autism intervention. In *Proceedings of the 39th International Conference on Acoustics, Speech and Signal Processing*.
54. Zisook, M, Hernandez, J, **Goodwin MS**, & Picard, RW (2013). Enabling visual exploration of long-term physiological data. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology*. +
55. Vosoughi, S, **Goodwin, MS**, Washabaugh, B, & Roy, D (2012). Speechome recorder for the study of child language development and disorders. In *Proceedings of the ACM International Conference on Multimodal Interaction.*
56. Sano, A, Hernandez, J, Deprey, J, Eckhardt, M, Picard, RW, & **Goodwin, MS** (2012). Multimodal annotation tool for challenging behaviors in people with autism spectrum disorders. In *Proceedings of the 14th ACM International Conference on Ubiquitous Computing*. *
57. Fletcher, R, Amemori, K, **Goodwin, MS**, & Graybiel, A (2012). A wearable wireless sensor platform for studying autonomic activity and social behavior in non-human primates. In *Proceedings of the International Conference of the IEEE Engineering in Medicine & Biology Society*.
58. Hedman, E, Miller, L, Schoen, S, Nielsen, D, **Goodwin, MS**, & Picard, RW (2012). Measuring autonomic arousal during therapy. In *Proceedings of the International Design and Emotion Conference*.
59. Madsen, M, El-Kaliouby, R, Eckhardt, M, **Goodwin, MS**, Hoque, ME, Picard, RW (2009). Interactive social emotional toolkit (iSET). In *Proceedings of the International Conference on Affective Computing & Intelligent Interaction*.
60. Albinali, F, **Goodwin, MS**, & Intille, SS (2009). Recognizing stereotypical motor movements in the laboratory and classroom: A case study with children on the autism spectrum. In *Proceedings of the 11th International Conference on Ubiquitous Computing*, New York: ACM Press. Best Paper award.
61. Hedman, E, Wilder-Smith, O, **Goodwin, MS**, Poh, M, Fletcher, R, Picard, RW (2009). iCalm: Measuring electrodermal activity in almost any setting. In *Proceedings of the International Conference on Affective Computing & Intelligent Interaction*.
62. Hoque, ME, Lane, JK, El-Kaliouby, R, **Goodwin, MS**, Picard, RW (2009). Exploring speech therapy games with children on the autism spectrum. In *Proceedings of the 10th Annual Conference of the International Speech Communication Association*.
63. Madsen, M, El Kaliouby, R, Eckhardt, M, Hoque, M, **Goodwin, MS**, & Picard, RW (2009). Lessons from participatory design with adolescents on the autism spectrum. In *Proceedings of the 27th International Conference on Human factors in Computing Systems*.
64. Masden, M, El-Kaliouby, R, **Goodwin, MS**, Picard, RW (2008). Technology for just-In-time in-situ learning of facial affect for persons with autism spectrum disorder. In *Proceedings of the 10th ACM Conference on Computers and accessibility*.
65. **Goodwin, MS**, Intille, SS, Velicer, WF, & Groden, J (2008). Sensor-enabled detection of stereotypical motor movements in persons with autism spectrum disorder. In *Proceedings of the 7th International Conference on Interaction Design & Children*. *
66. El-Kaliouby, R & **Goodwin, MS** (2008). iSET: interactive social-emotional toolkit for autism spectrum disorder. In *Proceedings of the 7th International Conference on Interaction Design & Children*. *

Refereed Scientific Conference Workshops

67. Jeong, S, Logan, D, **Goodwin, MS**, Graca, S, O'Connell, B, Anderson, L, Goodenough, H, Stenquist, N, Fitzpatrick, K, Ahmed, A, Smith-Freedman, D, Jamieson, K, Breazeal, C, Weinstock, P (2015). Challenges conducting child-robot interaction research in a pediatric inpatient care context. The First Workshop on Evaluating Child-Robot Interaction held in conjunction with the *7th International Conference on Social Robotics*.
68. Lee, CH, Morris, R, **Goodwin, MS**, Picard, RW (2008). Lessons Learned from a pilot study quantifying face contact and skin conductance in teens with asperger syndrome. *Work-In-Progress in CHI 2008*.

Refereed Published Abstracts

69. Cumpanasoiu, C, Mazefsky, C, Stedman, A, Peura, C, Tian, P, Guo, Y, Ioannidis, S, Erdogmus, D, Siegel, M, & **Goodwin, MS** (2017). Physiological biomarkers for prediction of imminent aggression in minimally verbal children with autism spectrum disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56, S256-257. */+
70. Ness, S, Manyakov, NV, Bangerter, A, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Dawson, G, **Goodwin, MS**, Hendren, RL, Leventhal, BL, Shic, F, Cioccia, W, & Pandina, GJ (2017). The Janssen Autism Knowledge Engine (Jake™): A set of tools and technologies to assess potential biomarkers for autism spectrum disorders. Journal of the American Academy of Child & Adolescent Psychiatry, 55, S110.
71. Pandina, G, Manyakov, NV, Bangerter, A, Lewin, D, Jagannatha, S, Boice, B, Skalkin, A, Dawson, G, **Goodwin, MS**, Hendren, R, Leventhal, B, Shic, F, & Ness, S. (2017). Prospective, observational cohort study of JAKE®, an autism knowledge engine: correlation of behavior ratings with eye tracking. Journal of the American Academy of Child & Adolescent Psychiatry, 56, S263 - S264.
72. Jagannatha, S, Sargsyan, D, Manyakov, NV, Skalkin, A, Bangerter, A, Ness, S, Lewin, D, Dawson, D, Shic, F, **Goodwin, MS**, Hendren, R, Leventhal, BL, & Pandina, G (2017). Building predictive models for autism spectrum disorder based on biosensor data. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56, S213.
73. **Goodwin, MS** (2016). Emerging technologies for multimodal assessment of autism spectrum disorder in laboratory and naturalistic settings: utility for biobehavioral phenotyping. Journal of the American Academy of Child & Adolescent Psychiatry, 55 S333 - S334. *
74. **Goodwin, MS** (2016). Laboratory and home-based assessment of electrodermal activity in individuals with autism spectrum disorders. Journal of the American Academy of Child & Adolescent Psychiatry, 55, S301-S302. *
75. Ness, S, Fai Ho, K, Aman, MG, Esbensen, A, **Goodwin, MS**, Dawson, G, Hendren, RL, Leventhal, BL, Opler, M, & Pandina, GJ (2016). The Autism Behavior Inventory: A novel tool for assessing change in core and associated symptoms of autism spectrum disorder. Journal of the American Academy of Child & Adolescent Psychiatry, 55, S109.
76. Huang, J, Craig, K, Diaz, D, Sikka, K, Ahmed, A, Terrones, A, Littlewort, J, **Goodwin, MS**, Bartlett, M (2014). Automated facial expression analysis can detect clinical pain in youth in the post-operative setting. *Journal of Pain*, 15(4) Supplement p. S3.
77. DiCorcia, JA, **Goodwin, MS**, Hedman, EB, Snidman, N (2012). A comparison of two measurement technologies to collect electrodermal activity in infants. *Psychophysiology*, 49, S107-S107.
78. Palumbo, R, Liu, S, **Goodwin, MS**, Velicer, WF, & Molenaar, PCM (2012). An idiographic approach to interpersonal physiological research. In *Proceedings of the International Journal of Behavioral Medicine*, 19 (Suppl 1), S222. +
79. Velicer, WF, Hoeppner, BB, **Goodwin, MS**, Mooney, ME, Dorothy K. Hatsukami, DK (2006). Longitudinal patterns of smoking for participants in a nicotine harm reduction intervention. In *Proceedings of the International Journal of Behavioral Medicine*, 13(S1).
80. Höppner, BB, **Goodwin, MS**, Velicer, WF, Mooney, ME, & Hatsukami, DK (2006). Identifying longitudinal patterns of daily smoking in a nicotine harm reduction intervention. In *Proceedings of the Annals of Behavioral Medicine*, 31(S149).

Scientific Books

*Author*

81. Kientz, J, **Goodwin, MS**, Hayes, G, & Abowd, G (2013). *Interactive Technologies for Autism*. Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies. Morgan & Claypool.

*Editor*

82. Boser, K, **Goodwin, MS**, & Wayland, S (Eds.) (2013). *Technology Tools for Students with Autism: Innovations that Enhance Independence and Learning*. Brookes.

Scientific Book Chapters

83. Miller, LJ, **Goodwin, MS**, & Sullivan, J (2015). The role of sensory processing challenges in autism spectrum disorders. In S. Edelson (Ed.) *Bernard Rimland's Infantile Autism: The book that changed autism*. (pp. 149-155) Jessica Kingsley, London.
84. Levine, T, Conradt, E, **Goodwin, MS**, & Sheinkopf, S, & Lester, B (2014). Psychophysiologic arousal to social stress in autism spectrum disorders. In VB Patel, VR Preedy, & C Martin (Eds.) *Comprehensive Guide to Autism. Vol. 3*. (pp. 1177-1194). Springer.
85. **Goodwin, MS** (2012). Passive telemetric monitoring: Novel methods for real-world behavioral assessment. In M. Mehl & T. Conner (Eds.) *Handbook of Research Methods for Studying Daily Life*. (pp. 251-266). Guilford. *
86. Cohen, IL, Yoo, HY, **Goodwin, MS**, Moskowitz (2011). Assessing challenging behaviors in autism spectrum disorders: Prevalence, rating scales, and autonomic indicators. In J. Matson & P. Sturmey (Eds.) *International Handbook of Autism and Pervasive Developmental Disorders*. (pp. 247-270). Springer.
87. Velicer, WF, Höppner BB, & **Goodwin, MS** (2010). Time series studies. In NJ Salkind, (Ed), *Encyclopedia of Research Design*. Thousand Oaks, CA: Sage Publications. *
88. Walls, TA, Höppner BB, & **Goodwin, MS** (2007). Statistical issues in intensive longitudinal data analysis. In A. Stone, S. Shiffman, A. Atienza, L. Nebelling (Eds.) *The Science of Real-time Data Capture*. (pp. 338-360). New York: Oxford University Press. *
89. Baron, MG, Lipsitt, LP, & **Goodwin, MS** (2006). Scientific foundations for research and practice. In Baron, Groden, Groden, & Lipsitt (Eds.) *Stress and Coping in Autism*. (pp. 53-92). New York: Oxford University Press. *

Conference Presentations (listing only since joining Northeastern in Fall 2011, out of 200+ total)

**Goodwin, MS**. Developing Innovative Technologies to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Presentation given 50+ times, exemplary venues include:

- Invited. NINDS Nonprofit Forum, Bethesda, MD, Sep 8, 2016.
- Plenary. National Autistic Society Conference on Autism & Technology, London, UK, Feb 2, 2016.
- Keynote. Autech 2015, Manchester, UK, Oct 1, 2015.
- Keynote. 48th Annual Gatlinburg Conference, New Orleans, LA, Apr 1-3, 2015.
- Keynote. 21st Annual Princeton Lecture Series, Princeton, NJ, Mar 20, 2015.
- Invited. NSF Workshop on Computationally Intensive Modeling of Social Interaction, Tucson, AZ, Nov 6-7, 2014.
- Keynote. 2nd Annual Innovative Technology for Autism Spectrum Disorders (ITASD), Intsitut Pasteur, Paris, France, Oct 3-4, 2014.
- Plenary. Cognitive Development Society, Memphis, TN, Oct 17, 2013.

International

1. Saunders Wilder, O, Sullivan, J, Johnson, KT, Palumbo, RV, Cumpanasiou, C, Picard, RW, & **Goodwin, MS** (2018). Dyadic Physiological Interdependence and Social Reciprocity in ASD. Poster presented at the *International Society for Autism Research (INSAR) 2018 Annual Meeting*, Rotterdam, Netherlands, May 9-12. */+
2. **Goodwin, MS,** Cumpanasoiu, C, Stedman, A, Peura, C, Ozdenizci, O, Tian, P, Guo, Y, Ioannidis, I, Erdogmus, D, Mazefsky, CS, & Siegel, M (2018). Poster presented at the *International Society for Autism Research (INSAR) 2018 Annual Meeting*, Rotterdam, Netherlands, May 9-12. *
3. Boccanfuso, L, Shic, F, Macari, S, DiNicola, L, Milgramm, A, Hilton, E, Kane-Grade, FE, Heymann, P, **Goodwin, MS**, Vernetti, A, & Chawarska, K (2018). Decreased Fear Response in Toddlers with ASD Is Linked with Attenuated Changes in Physiological Arousal. Paper presented in the panel session "How Does It Feel? Emotional Lives of Toddlers with ASD" at the *International Society for Autism Research (INSAR) 2018 Annual Meeting*, Rotterdam, Netherlands, May 9-12.
4. Tralie, C, **Goodwin, MS,** & Sapiro, G (2018). Automated Detection of Stereotypical Motor Movements in Children with Autism Spectrum Disorder Using Geometric Feature Fusion. Poster presented at the *International Society for Autism Research (INSAR) 2018 Annual Meeting*, Rotterdam, Netherlands, May 9-12.
5. Bangerter, A, Manyakov, NV, Lewin, D, Jagannatha, S Boice, M. Skalkin, A, Cioccia, W, Dawson, G. **Goodwin, MS**, Hendren, R, Leventhal, B, Shic, F, Pandina, G, & Ness, S (2017). Novel Approaches to Parent-Reporting of Behaviors in Autism Spectrum Disorder. Poster presented at the *International Meeting for Autism Research*, San Francisco, CA, May 10-13.
6. Pandina, G, Ness, S, Bangerter, A, Manyakov, NV, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Cioccia, W, Dawson, G, **Goodwin, MS**, Hendren, R, Leventhal, B, & Shic, F (2017). Eye-Tracking Features as Diagnostic Markers of Autism Spectrum Disorder, Symptom Severity, and Change over Time. Poster presented at the *International Meeting for Autism Research*, San Francisco, CA, May 10-13.
7. Manyakov, NV, Pandina, G, Ness, S, Bangerter, A, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Cioccia, W, **Goodwin, MS**, Hendren, R, Leventhal, B, Shic, F, & Dawson, G (2017). Identifying EEG Biomarkers as Potential Change Indicators in Autism Spectrum Disorder Clinical Studies. Poster presented at the *International Meeting for Autism Research*, San Francisco, CA, May 10-13.
8. **Goodwin, MS**, Ness, S, Bangerter, A, Manyakov, NV, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Cioccia, W, Dawson, G, Hendren, R, Leventhal, B, Shic, F, & Pandina, G (2017). Cardiovascular Indices as Outcome Measures in Autism Spectrum Disorder Clinical Trials. Poster presented at the *International Meeting for Autism Research*, San Francisco, CA, May 10-13. *
9. **Goodwin, MS** (2017). Wearable Sensor-Based Physiological and Physical Activity Biomarkers for Use in Laboratory and Naturalistic Environments to Assess Arousal and Repetitive Motor Movements in Individuals with Autism Spectrum Disorder. Presentation given in panel session on Developing Clinically Practicable Biomarkers for Autism Spectrum Disorder at the *International Meeting for Autism Research*, San Francisco, CA, May 10-13. *
10. Baker, J, Fenning, R, Baucom, B, & **Goodwin, MS** (2016). Physiological Reactivity and Individual Differences in Autism Spectrum Disorder. Symposium at the Annual Convention of the *American Psychological Association*, Denver, CO, Aug 4-7. *
11. **Goodwin, MS** & Boyd, R (2016). The Theory and Practice of Machine Learning in Psychology: The What, Why, and How of a Powerful Statistical Technique. Workshop at the Annual Convention of the *Association for Psychological Science*, Chicago, IL, May 26-29. *
12. Hawley K, Diaz D, Craig K, **Goodwin MS**, Bartlett M, Huang J (2016). Acceptability to children and their parents of participating in an investigation of ongoing and instigated pain during post-operative recovery. Poster at the Annual Convention of the *Association for Psychological Science*, May 26 -29.
13. Soja, N, **Goodwin, MS**, & Naigles, L (2016). Neologisms and How They May Help: A Case Study of a Girl with Autism Spectrum Disorder. Poster at the *International Conference on Infant Studies*, New Orleans, May 25-26. +

14. Jones, R, Carberry, C, Hamo, A, Hrishikesh, R, Gupta, U, Albin, A, Pawar, R, Klechner, I, Wilder-Smith, O, Clements, M, Lord, C, & **Goodwin, MS** (2016). Improving Autism Outcome Measures: An Integrated Home and Clinic Protocol with Novel Technologies. Poster at the *International Meeting for Autism Research*, Baltimore, MD, May 11-14. *
15. Wilder-Smith, O & **Goodwin, MS** (2016). Quantitative Assessment of Socio-Affective Dynamics in Autism Using Interpersonal Physiology. Paper at the *International Meeting for Autism Research*, Baltimore, MD, May 11-14. +/*
16. **Goodwin, MS** & McGee, H (2016). Typology of Temporal Patterns: Identifying Subgroups of Individuals with ASD. Poster at the *International Meeting for Autism Research*, Baltimore, MD, May 11-14. *
17. Riobo, I, Wilder-Smith, O, Sullivan, J, Kim, C, Liu, Y, Abowd, G, Rehg, J, & **Goodwin, MS** (2016). InHOME: A Multimodal Bio-Behavioral Data Capture System for Autism Research. Poster at the *International Meeting for Autism Research*, Baltimore, MD, May 11-14. *
18. Soja, N, Naigles, L, & **Goodwin, MS** (2016). Neologisms: A Case Study. Poster at the *International Meeting for Autism Research*, Baltimore, MD, May 11-14. +/*
19. **Goodwin, MS** (2016). A Sampling of Innovative Technologies to Enhance Research and Better Support Individuals on the Autism Spectrum. Invited address at University College of London, *Centre for Research in Autism and Education*, London, UK, Feb 1. *
20. **Goodwin, MS** (2015). Information Technologies Applied to the Diagnosis of and Quality of Life for People with ASD. Invited address at the *Neuvas Tecnologias y Trastornos del Espectro Autists* (TEA) conference, Barcelona, Spain, Jul 6-7. *
21. **Goodwin, MS** (2015). Automated Detection of Stereotypical Motor Movements in Individuals with Autism Spectrum Disorder Using Wireless 3-Axis Accelerometers and Computerized Pattern Recognition Algorithms. Paper at the Annual *International Meeting for Autism Research*, Salt Lake City, UT, May 13-16. *
22. Wilder-Smith, O & **Goodwin, MS** (2015). Web-Based Toolkit for Multimodal Data Analysis in ASD Research. Poster at the Annual *International Meeting for Autism Research*, Salt Lake City, UT, May 13-16. +/*
23. Bone, DK, **Goodwin, MS**, Black, MP, Lee, CC, Audhkhasi, K, & Narayanan, S (2015). Machine Learning and Autism Diagnostics: Promises and Potential Pitfalls. Poster at the Annual *International Meeting for Autism Research*, Salt Lake City, UT, May 13-16.
24. **Goodwin, MS** (2014). Naturalistic Assessment of Physiological and Motor Responses in Sensory Related Disorders: A Computational Behavioral Science Approach. Plenary address at the Annual *International Sensory Processing Disorder Foundation Symposium*, Tempe, AZ, Nov 6-7. *
25. **Goodwin, MS** (2014). Technology Tools for Students with Autism: Book Precis. Plenary address at the *Annual Innovative Technology for Autism Spectrum Disorders* (ITASD), Paris, France, Oct 3-4. *
26. **Goodwin, MS** (2014). Innovative Technologies for Autism: A Survey of the Literature. Panel at the Annual *Convention of the Association for Behavior Analysis International* (ABAI), Chicago, IL, May 23-27. *
27. **Goodwin, MS** (2013). Wireless Physiological & Physical Activity Sensing to Enhance & Accelerate Research & Practice in Individuals with Autism. Invited address at the *International Symposium on Computational Behavioral Science*, Japan, Sep 26-28. *
28. Eckhardt, M, **Goodwin, MS**, Picard, RW (2013). Storyscape: A Social Illustrated Primer. Poster at the Annual *International Meeting for Autism Research*, San Sebastian, Spain, May 2-4.
29. Chin, I, Vosoughi, S, **Goodwin, MS**, Roy, DK, Naigles, L (2013). Dense Data Collection Through the Speechome Recorder Better Reveals Developmental Trajectories. Poster at the Annual *International Meeting for Autism Research*, San Sebastian, Spain, May 2-4.
30. Hernandez, J, Sano, A, Zisook, M, Deprey, J, **Goodwin, MS**, Picard, RW (2013). Analysis and Visualization of Longitudinal Physiological Data of Children with ASD. Poster at the Annual *International Meeting for Autism Research*, San Sebastian, Spain, May 2-4.

31. Velicer, WF, Babbin, SF, Aloia, M, & **Goodwin, MS** (2012). Identifying Longitudinal Patterns of Adherence to Treatment for Sleep Apnea. Paper at the *International Congress of Behavioral Medicine*, Budapest, Aug 29-September 1. *
32. Chin, I, Rubin, D, Tovar, A, Vosoughi, S, Cheng, M, Potrzeba, E, **Goodwin, MS**, Roy, D, & Naigles, L (2012). Dense Recording of Naturalistic Interactions Reveal Both Typical and Atypical Speech in One Child with ASD. Poster at the Annual *International Meeting for Autism Research*, Toronto, CA, May 17-19.
33. Eckhardt, M, **Goodwin, MS**, Picard, R (2012). Influencing Gaze Behavior and Expression Recognition. Poster at the Annual *International Meeting for Autism Research*, Toronto, CA, May 17-19.
34. Hernandez, J, Sano, A, **Goodwin, MS**, Picard, R (2012). AMA, a Tool for Annotation, Monitoring, and Analysis of Behavioral Activity. Poster at the Annual *International Meeting for Autism Research*, Toronto, CA, May 17-19.
35. Aube, D, **Goodwin, MS**, & Velicer, W (2012). Cardiovascular Arousal in Individuals with Autism: An Idiographic Analysis. Poster at the Annual *Association for Behavior Analysis International*, Seattle, WA, May 25-29.
36. Liu, S, Molenaar, PCM, Rovine, M, & **Goodwin, MS** (2011). Modeling the Dynamics in Physiological Arousal Between Children with Sensory Processing Disorder and Therapists During Psychotherapy. Invited symposium at the *International Meeting of the Psychometric Society*, Hong Kong, Jul 19-22. *
37. Lee, JC, **Goodwin, MS**, Picard, RW (2011). Externalization and Interpretation of Autonomic Arousal in Teenagers Diagnosed with Autism In a Relaxation Experiment. Poster at the Annual *International Meeting for Autism Research*, San Diego, CA, May 12-14.
38. **Goodwin, MS**, Albinali, F, Aube, D, Intille, SS (2011). Comparing Stereotypical Motor Movement Pattern Recognition Performance Using Mobile Phone Annotations From Experts and Non-Experts. Poster at the Annual *International Meeting for Autism Research*, San Diego, CA, May 12-14. *

National

39. Wilder, OS, Sullivan, J, Palumbo, R, & **Goodwin, MS** (2018). Quantitative Assessment of Socio-Affective Dynamics in Autistic Children Using Interpersonal Physiology. Presentation given in Physiological Synchrony and Interpersonal Processes: How Shared Physiology Shapes Interactions Symposium at the Annual *Society for Personality and Social Psychology* Meeting, Atlanta, GA, March 1-3. +/*
40. **Goodwin, MS** (2017). Automated Detection of Stereotypical Motor Movements in Individuals with Autism Spectrum Disorder Using Wireless 3-Axis Accelerometers and Computerized Pattern Recognition Algorithms. Invited address at the *NIMH Biometrics & Beyond Workshop*, Bethesda, MD, March 27-28.
41. Ness, S, Fai Ho, K, Aman, MG, Esbensen, A, **Goodwin, MS**, Dawson, G, Hendren, RL, Leventhal, BL, Opler, M, & Pandina, GJ (2016). The Autism Behavior Inventory: A Novel Tool for Assessing Change in Core and Associated Symptoms of Autism Spectrum Disorder. Poster presented at the *American Academy of Child & Adolescent Psychiatry Annual Meeting*, New York, NY, Oct 24-29.
42. Ness, S, Manyakov, NV, Bangerter, A, Lewin, D, Jagannatha, S, Boice, M, Skalkin, A, Dawson, G, **Goodwin, MS**, Hendren, RL, Leventhal, BL, Shic, F, Cioccia, W, & Pandina, GJ (2016). The Janssen Autism Knowledge Engine (JAKE): A Set of Tools and Technologies to Assess Potential Biomarkers for Autism Spectrum Disorders. Poster presented at the *American Academy of Child & Adolescent Psychiatry Annual Meeting*, New York, NY, Oct 24-29.
43. **Goodwin, MS**, Kleckner, I, Jones, R, & Lord, C. (2016). Laboratory and Home-Based Assessment of Electrodermal Activity in Individuals with Autism Spectrum Disorders. Symposium presentation at the *American Academy of Child & Adolescent Psychiatry Annual Meeting*, New York, NY, Oct 24-29. *
44. **Goodwin, MS** (2016). Emerging Technologies for Multimodal Assessment of Autism Spectrum Disorder in Laboratory and Naturalistic Settings: Utility for Biobehavioral Phenotyping. Symposium presentation at the *American Academy of Child & Adolescent Psychiatry Annual Meeting*, New York, NY, Oct 24-29. *

45. **Goodwin, MS**, Palumbo, R, Moghadamfalahi, M, Sikka, K, Diaz, D, Bartlett, M, Craig, K, & Huang, J (2016). Electrodermal Activity Correlates with Self-Reported Acute Pain Scores in Youth Following Surgery. Paper at the *Annual Pediatric Academic Society Convention*, Baltimore, MD, Apr30-May 3. *
46. Wilder-Smith, O, Palumbo, R, Sullivan, J. & **Goodwin, MS** (2016). Quantitative Assessment of Interpersonal Autonomic Synchrony Using Dynamical Systems Models. Paper at the *Society for Affective Science Annual Convention*, Chicago, IL, Mar 17-19. +/*
47. Baucom, BR, Baucom, K.JW, Hogan, JN, Crenshaw, AO, Bourne, SE, Moore, L, Crowell, S, Georgiou, PG, & **Goodwin, MS** (2015). Resting High-Frequency Heart Rate Variability Predicts Behavioral Roles in Demand/Withdraw Behavior. Symposium at the Annual *Convention of the Association for Psychological Science*, New York, NY, May 21-24. *
48. Craig K, Bartlett M, **Goodwin, MS** (Palumbo R), Huang, JS (2015). Improving Assessment of Clinical Pain Using Technology. Paper at the *American Pain Society Annual Convention*, Palm Springs, CA, May 13-16.
49. Bickmore, T, **Goodwin, MS**, Jimison, H, Pavel, M, Zhou, S, Zhang, Z, Wilder-Smith, O, & Zisook, M (2015). Training Researchers in Behavioral Technology and Personal Health Informatics. Panel at the Annual Meeting of the *Society of Behavioral Medicine*, San Antonio, TX, Apr 22-25.
50. Baucom, BR, Baucom, KJW, Hogan, JN, Crenshaw, AO, Bourne, SE, Moore, L, Crowell, S, Georgiou, PG, & **Goodwin, MS** (2014). Comparability of cardiovascular reactivity to marital conflict in laboratory and naturalistic settings. Symposium at the Annual Convention of the *Association for Behavioral and Cognitive Therapies*, Philadelphia, PA, Nov 20-23. *
51. **Goodwin, MS** (2014). Understanding Affect and Supporting Behavior Regulation in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Invited address at the Inaugural Conference of the *Society for Affective Science*, Washington, D.C., Apr 24-26. *
52. Rehg, J, Sclaroff, S, Dey, A, Picard, R, **Goodwin, MS**, Forsyth, D, & Narayanan, S (2013). Computational Behavioral Science: Modeling, Analysis, and Visualization of Social and Communicative Behavior. Invited presentation at *NSF Expeditions in Computing PI Meeting*, Washington D.C., May 14-16.
53. Chin, I, S, Potrzeba, E, **Goodwin, MS**, & Naigles, L (2013). Verb Use in a Child Previously Diagnosed with ASD: Dense Recordings Reveal Typical and Atypical Development. Poster at *Society for Research in Child Development* 2013 Biennial Meeting, Seattle, WA, Apr 18-20.
54. **Goodwin, MS** (2013). Assistive Technology and Individuals with Autism Spectrum Disorder. Invited address at the *Autism Speaks Autism Investment Conference*, New York, NY, Feb 21. *
55. **Goodwin, MS** (2013). Developing Wireless Physical Activity & Physiological Sensors to Enhance and Accelerate Science and Practice in Individuals with ASD. Invited address at *Simons Foundation Online Phenotype Workshop*, New York, NY, Feb 14. *
56. **Goodwin, MS**, McGhee, H, & Palumbo, R (2012). Understanding Autism Spectrum Disorders: A Case Study in the Necessity of Conducting Idiographic Analyses. Presentation at the Annual Meeting of the *Society of Behavioral Medicine*, New Orleans, LA, Apr 11-14. *
57. DiCorcia, J, **Goodwin, MS**, & Snidman, N (2012). A Comparison of Two Measurement Technologies to Collect Electrodermal Activity in Infants. Paper presented at the *Society for Research in Child Development* Themed Meeting: Developmental Methodology, Tampa, FL, Feb 9-11.
58. Liu, S, Molenaar, P, Rovine, M, & **Goodwin, MS** (2012). Time-Frequency Analysis for Modeling Physiological Dynamics in Dyadic Interactions. Paper presented at the *Society for Research in Child Development* Themed Meeting: Developmental Methodology, Tampa, FL, Feb 9-11. *
59. **Goodwin, MS** (2011). Understanding Autism Spectrum Disorders: A Case Study in the Necessity of Conducting Idiographic Analyses. Paper at the Annual Meeting of the *Society for Prevention Research*, Washington, D.C., May 29- June 1. *
60. **Goodwin, MS** (2011). Wireless Sensing of Physiological & Physical Activity in Individuals with Autism Spectrum Disorder. Invited address at the *Association for the Advancement of Artificial Intelligence* Spring Symposia on Computational Physiology, Stanford University, Palo Alto, CA, Mar 21-23. *

Regional/Local

61. **Goodwin, MS** (2017). Use of Technology to Support those with Autism Spectrum Disorder: A Computational Behavioral Science Approach. Invited address at the *University of Massachusetts*, Lowell, MA, Nov 6. *
62. **Goodwin, MS** (2017). Developing Innovative Technologies to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Invited address at the *Yale Child Study Center*, New Haven, CT, May 5. *
63. **Goodwin, MS** (2017). Developing Innovative Technologies to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Invited address at the 7th Annual *Sanford Rare Disease Symposium*, Sanford Center, Sioux Falls, SD, Feb 24. *
64. **Goodwin, MS** (2017). Developing Innovative Technologies to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Invited address at *Pennsylvania State University,* Department of Human Development and Family Studies, State College, PA, Sep 6. *
65. **Goodwin, MS** (2017). Understanding and Assessing Anxiety in Autism. Invited address at the *Asperger's Association of New England* Webinar, May 16. *
66. **Goodwin, MS** (2017). Understanding and Assessing Anxiety in Autism. Invited address at the *Asperger's Association of New England* Daniel W. Rosen Connections Conference, Bentley University, Waltham, MA, Dec 2. *
67. **Goodwin, MS** (2017). New Technologies for Identifying and Understanding More Impactful Interventions for those on the Autism Spectrum. Invited address at *Families at the Forefront of Technology*, Aspen, CO, May 2-3. *
68. **Goodwin, MS** (2016). Developing Innovative Technology to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Keynote address in the John D. Wiley Seminar Series at the *University of Wisconsin-Madison*, Waisman Center, Madison, WI, February 16. *
69. **Goodwin, MS** (2016). Developing Innovative Technologies to Enhance Research and Practice in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Keynote address in the Kennedy Center Lectures on Development and Developmental Disabilities at the *Vanderbilt Kennedy Center*, Nashville, TN, November 7. *
70. Ciptadi, A, Northrup, M, Abowd, G, Rehg, J, & **Goodwin, MS** (2014). Automatic Retrieval of Videos of Stereotyped and Repetitive Behavior. Poster presented at the *NSF Expeditions in Computing Meeting*, Georgia Institute of Technology, Atlanta, GA, Nov10-11. *
71. Wilder-Smith, O, & **Goodwin, MS** (2014). Exploring the Promise of Computational Supported Diagnostic & Clinical Assessment of Autism Spectrum Disorder. Poster at the *NSF Expeditions in Computing Meeting*, Georgia Institute of Technology, Atlanta, GA, Nov 10-11. +
72. Bargal, S, **Goodwin, MS**, & Sclaroff, S (2014). A Study of Spatial Exploration Patterns of Children. Poster at the *NSF Expeditions in Computing Meeting*, Georgia Institute of Technology, Atlanta, GA, Nov 10-11.
73. Bone, D, **Goodwin, MS**, Black, M, Lee, C, Audhkhasi, K, & Narayanan, S (2014). Applying Machine Learning to Facilitate Autism Diagnostics: Pitfalls and Promises. Poster at the *NSF Expeditions in Computing Meeting*, Georgia Institute of Technology, Atlanta, GA, Nov10-11.
74. **Goodwin, MS** (2014). Moving Towards a Real-Time System for Automatically Recognizing Stereotypical motor Movements in Individuals on the Autism Spectrum Using Wireless Accelerometery. Invited address at the *NSF Expeditions in Computing Meeting*, Georgia Institute of Technology, Atlanta, GA, Nov 10-11. *
75. Bargal, SA, **Goodwin, MS**, Sclaroff, S (2014). A Study of Spatial Exploration Patterns of Children. Poster at the *Boston University Scholars Day*, Boston, MA, April 15. Hariri Award for Transformative Computational Science.
76. **Goodwin, MS** (2014). Understanding Affect and Supporting Behavior Regulation in Individuals on the Autism Spectrum: A Computational Behavioral Science Approach. Invited address at the *Northeastern University Conference New Vistas in Emotion and Technology*, Boston, MA, Jan 31. *

77. **Goodwin, MS** (2013). Measurement and Analysis of Stereotypical Movements in Individuals with Autism. Invited address at the *Northeastern University Boston Action Club Speaker Series*, Boston, MA. *
78. **Goodwin, MS** (2013). Innovative Technology for Recording Behavior in Natural Settings. Plenary address at *Simons Foundation 2nd Annual Variations in Individuals Project Meeting*, Orlando, FL, Jul 19-21. *
79. **Goodwin, MS** (2012). Innovative Technologies for the Study of Autism Spectrum Disorders: Research and Applications. Invited address at the *University of Massachusetts Department of Computer Science*, Amherst, MA, Nov 2. *
80. **Goodwin, MS** (2012). Innovative Technologies for the Study of Autism Spectrum Disorders: Research and Applications. Invited address at the *University of Connecticut Department of Psychology*, Storrs, CT, Oct 5. *
81. **Goodwin, MS**, Kumar, S, & Shetty, V (2012). Principles of mHealth Design–III: Methods–Optimizing Multimodal Mobile Assessment. Invited address at the 2012 *mHealth Summer Training Institute*, Northeastern, Boston, Jul 29-Aug 3. *
82. **Goodwin, MS** (2012). Innovative Technologies for Measuring, Communicating, and Understanding Physiological Features of Anxiety. Invited address at the *Asperger's Association of New England*-Sponsored Current Research: Implications for the Asperger Community, Boston, MA, Mar 16. *
83. **Goodwin, MS** (2011). Technology Platforms to Assist Persons with Autism Spectrum Disorders. Demonstration session at the Annual *Autism Consortium Meeting*, Boston, MA, Oct 25. *
84. **Goodwin, MS** (2011). Innovative Technologies for Quantifying Behavioral Phenotypes in Individuals with Autism. Invited address at the *Simons Foundation Biomarkers Workshop*, Stonybrook, NY, Jul 23-24. *
85. **Goodwin, MS** (2011). Emerging Technologies for Measuring and Tracking Biological and Interpersonal Dynamics. Invited Address at the Annual *International Trauma Conference*, Boston, MA, May 18-21. *
86. **Goodwin, MS** (2011). Understanding the Role of Stress and Anxiety in Social Competence. Invited address at the *Youthcare/MGH Annual conference*, Boston, MA, Apr 9. *
87. **Goodwin, MS** (2010). School Design for Children & Youth with ASD: The Role Innovative Technology Can Play. Paper presented at *Build Boston 2010*, Boston, Nov 17-19. *

Conference/Symposium Organizer

88. **Goodwin, MS**, & Shic, F (2016, 2017). Symposium Organizer, Innovative Technology for Autism Demonstration Session at the *International Meeting for Autism Research*. *
89. **Goodwin, MS** (2011, 2012, 2013, 2014, 2015). Symposium Organizer, Innovative Technology for Autism Demonstration Session at the *International Meeting for Autism Research*. *
90. **Goodwin, MS** (2013). Symposium Organizer, Emerging Technologies for Behavioral Assessment in Natural Environments, *Society for Ambulatory Assessment* Annual Conference, Amsterdam, Jun 21. *
91. Naryanan, S, Rehg, J, **Goodwin, MS**, Abowd, G, & Rozga, A (2012). Co-Organizer, NSF Expeditions Open Workshop on Computational Methods for Quantifying Social and Communicative Behavior in Autism. *USC, Virterbi School of Engineering*, Sep 28.
92. Rehg, J, Abowd, G, & **Goodwin, MS** (2012). Co-Organizer, NSF Expeditions Summer School. *Center for Discovery*, NY, Jun 5-8. *
93. Jekel, D, McLeod, S, **Goodwin, MS**, et al. (2012). Co-Organizer, *Asperger's Association of New England*-Sponsored Current Research: Implications for the Asperger Community, Boston, Mar16.
94. Rehg, J, Abowd, G, & **Goodwin, MS** (2011). Co-organizer, *NSF Expeditions* Open Workshop on Technology and Autism Research: Towards a Computational Science of Behavior. MIT Media Lab, Sep 27. *
95. Colamarino, S, Wallace, S, **Goodwin, MS**, Boser, K (2011). *Core 77/Autism Speaks*-Sponsored Autism Connects International Student Design Competition.

GRANT FUNDING

Active External Grants

1. "Predicting Situational Onset of Aggression in Minimally Verbal Youth with Autism Using Biosensor Data & Machine Learning Algorithms." Department of Defense, Autism Research Program, Idea Development Award. **Goodwin PI**. Sep 2018 – Aug 2021. 1.4 aca mo. Total over study period: $460,733.
2. "Developing Novel Analytics for Ambulatory Electrodermal Activity Data." Simons Foundation for Autism Research Initiative. **Goodwin PI**. Dec 2017 – Nov 2018. 0.65 sum mo. Total over study period: $62,593.
3. "Development and Evaluation of a Simulated Prototype to Dynamically Adjust Ambient Environments to Promote Affective Regulation in Individuals with Autism Spectrum Disorder." ACL National Institute on Disability, Independent Living, and Rehabilitation Research, SBIR Phase I. **Goodwin Subcontract PI**, Spacefactory PI. Jul 2017- Dec 2017. 1 ca. mo. NU direct: $20,973. Total over study period: $100,000.
4. "Developing and Implementing a Framework for Evidence-Based Practice for Technology Relevant for Autism." FIRAH, Foundation Orange, UEFA Foundation for children (project #: APa2016_026). Grynszpan PI, Université Pierre et Marie Curie, M. Brosnan PI, University of Bath, **Goodwin Co-PI**, Northeastern University, Fletcher-Watson Co-PI, University of Edinburgh, Hererra Co-PI, University of Valencia. May 2017 – Apr 2019. Total over study period: amount: $120,000.

Consulting on Active Grants

5. "Attentional, temperamental, and physiological process underlying anxiety in preschoolers with ASD." NICHD (1RO1MH111652-01). Chawarska PI, Yale University. Mar 2017 – Jan 2022.
6. "UCLA Center for Translational Research in Neurodevelopment: UC-TRaN." NICHD (1 U54 HD087101-01). Bookheimer PI, University of California Los Angeles. Nov 2015 – May 2020.
7. "Biomarkers of Emotion Regulation, Social Response & Social Attention in ASD." Clinical Research Associates/Simons Foundation for Autism Research Initiative. Sheinkopf PI, Brown University. Sep 2015 - Sep 2018.
8. "Clinical and Behavioral Phenotyping of Autism and Related Disorders." NIMH (1ZIAMH002868-09). Swedo PI, National Institute of Mental Health. Sep 2015 – Aug 2020.
9. "Change-Sensitive Measurement of Emotion Dysregulation in ASD." NICHD (R01-HD079512). Mazefsky PI, University of Pittsburgh. Sep 2014 – May 2019.
10. "The Autism Inpatient Collection: Developing a Unique, Severely Affected Cohort to Accelerate Discovery and Targeted Treatment of Autism Subtypes." Simons Foundation and Nancy Lurie Marks Family Foundation. Siegel PI, Maine Medical Center. Oct 2013 – Sep 2018.
11. "Toward Outcome Measurement of Anxiety in Youth with Autism Spectrum Disorders." NIMH (5R01MH099021-04). Scahill PI, Emory. Sep 2013 – Nov 2017.
12. "Components of Emotional Processing in Toddlers with ASD." NIMH (5R01MH100182-03). Chawarska PI, Yale. Sep 2013 – May 2018.

Pending External Grants

13. "Mediators and Moderators of Immediate and Long-Term Therapeutic Horseback Riding Intervention Effects in a Psychiatric Population of Youth with ASD." NICHD. **Goodwin Subcontract PI**. Gabriels PI, University of Colorado. Dec 2018 – Nov 2023. 0.6 sum mo. Total NU direct over study period: $115,757. Total over study period: $664,448.
14. "Collaborative Research: An Opensource Multimodal Data Fusion Framework for the Analysis of Peripheral Physiological and Contextual Data". NSF. Goodwin, PI. Oct 2018 – Sep 2023. 1 sum mo. Total over study period: $2,547,416.
15. "The Autism Inpatient Collection: Phase 3: Shifting the Paradigm for Understanding and Treating Aggression in Autism." Simons Foundation for Autism Research Initiative/Nancy Lurie Marks Family Foundation. **Goodwin Subcontract PI**. Siegel

PI, Maine Medical Center. Dec 2018 – Sep 2021. 1.4 aca mo. Total NU direct over study period: $421,860. Total over study period: $2,192,134.

Completed External Funded Grants

16. "Telemetric Assessment of Movement Stereotypy in Children with Autism Spectrum Disorder." Autism Speaks. **Goodwin Co-PI**. Groden PI, The Groden Center. Sep 2006 – Aug 2008. Total over study period: $118,000.
17. "Autism Spectrum Disorder: Recent Advances in Infantile Origins, Early Childhood Detection, and Intervention." American Psychological Association and Autism Speaks. **Goodwin Co-PI**. Lipsitt PI, Brown University. Jul 2007. Total over study period: $20,000.
18. "HCC: Collaborative Research: Social Emotional Technologies for Autism Spectrum Disorders." NSF (0705647). **Goodwin Subcontract PI**. Picard PI, Massachusetts Institute of Technology. Sep 2007 – Aug 2011. Total over study period: $900,000.
19. "Computerized Interventions to Promote Verbal Expressions in Individuals with Autism Spectrum Disorders." Nancy Lurie Marks Family Foundation. **Goodwin Co-PI**. Picard PI, Massachusetts Institute of Technology. Sep 2008 – Aug 2009. Total over study period: $97,258.
20. "Developing New Methods for Supporting the Innovative Technology for Autism Initiative Community." Autism Speaks. **Goodwin PI**. Aug 2008 – Jul 2009. Total over study period: $20,000.
21. "Assessing and Communicating Movement Stereotypy and Arousal Telemetrically in Individuals with Autism Spectrum Disorder." Nancy Lurie Marks Family Foundation. **Goodwin PI**. Sep 2008 – Aug 2011. Total over study period: $158,000.
22. "A Prospective Multi-System Evaluation of Infants at Risk for Autism." DOD (AS073092). **Goodwin Co-I**. Herbert PI, Harvard Medical School. Sep 2008 – Aug 2010. Total over study period: $850,000.
23. "Assessing Information Processing and Capacity for Understanding Language in Non-Verbal Children with Autism Spectrum Disorder." Autism Speaks. **Goodwin Co-I**. Benaisch PI, Rutgers University. Jul 2008 – Jun 2011. Total over study period: $250,000.
24. "Wearable Wireless Toolkit for Measurement and Communication of Autonomic Nervous System Activity in Autism." Nancy Lurie Marks Family Foundation. **Goodwin Co-PI**. Picard PI, Massachusetts Institute of Technology. Sep 2009 – Aug 2011. Total over study period: $750,000.
25. "Collaborative Research Supplement and Infrastructure and Research Equipment for Advancement of Science to Language Development and Outcome in Children with Autism." NIDCD (3RO1DC007428-04S1). **Goodwin Co-I**. Naigels PI, University of Connecticut. Aug 2009 – Jul 2011. Total over study period: $100,000.
26. NIH Loan Repayment, Extramural, Pediatric Research. 2010.
27. "Development of a Wireless, Wearable Sensor for Measuring Autonomic Nervous System Functioning in Primates." Jane Botsford Johnson Foundation. **Goodwin PI**. Jul 2010 – Aug 2011. Total over study period: $85,000.
28. "ASD and Design: Defining the Future of Autism Spectrum Disorder Related Design and its Relationship to Advanced Technology." NEA. (11-4200-7005). **Goodwin PI**. Jul 2010 – Jun 2011. Total over study period: $25,000.
29. "Innovative Assessments of Top-down Processing in Persons with Autism Across a Range of Functioning Levels." Simons Foundation. **Goodwin Co-I**. Sinha PI, Massachusetts Institute of Technology. Sep 2010 – Aug 2011. Total over study period: $50,000.
30. "Career Development Award." Nancy Lurie Marks Family Foundation. **Goodwin PI**. Sep 2010 – Aug 2012. Total over study period: $200,000.
31. NIH Loan Repayment Renewal, Extramural, Pediatric Research. 2011.
32. NIH Loan Repayment Renewal, Extramural, Pediatric Research. 2012.
33. "Project MENTIS: Rapid Pilot Research Deployment and Evaluation." Janssen Pharmaceuticals Research & Development. **Goodwin PI**. Nov 2013 – Oct 2014. 1 aca mo. Annual NU direct: $288,745. Total NU direct over study period: $294, 910. Total over study period: $314,647.

34. "Multi-modal Computational Behavior Analysis." NSF, Expeditions (1029585). **Goodwin Subcontract PI, Associate Project Director**. Rehg PI, Georgia Institute of Technology. Sep 2010 – Aug 2015. 2 sum mo. Annual NU direct: $44,985. Total NU direct over study period: $174,715. Total over study period $9,999,246.
35. "A Study to Preliminarily Assess the Janssen Autism Knowledge Engine in Children and Adults with Autism Spectrum Disorder." Janssen Pharmaceuticals Research & Development. **Goodwin PI**. Jan 2015 – Dec 2016. 1 aca mo. Annual NU direct: $78,147. Total NU direct over study period: $120,737.
36. "Development of a Home-Based System for Biobehavioral Recording of Individuals with Autism." Simons Foundation. **Goodwin PI**. Jul 2013 – Jun 2016. 2 sum mo. Annual NU direct: $428,754. Total NU direct over study period: $1,008,065. Total over study period: $1,085,829.
37. "Examining Interpersonal Biobehavioral Synchrony as a Measure of Social Reciprocity and Emotion Regulation in Parent-Child Dyads with and without Autism using an Interactive Smart Toy Platform." Foundation for Autism Research MIT Simons for the Center of the Social Brain. **Goodwin PI**. Picard Co-PI, Massachusetts Institute of Technology. Jan 2016 - Dec 2016. 1 cal mo. Annual NU direct: $117,547. Total over study period: $179,664.
38. "Robotic Huggable Project." Boston Children's Hospital. **Goodwin Subcontract PI**. Weinstock PI, Boston Children's Hospital. June 2014 – June 2017. 1.33 cal mo. Annual NU direct: $65,000. Total over study period: $129,747.
39. "Minimally Verbal Children with ASD: From Basic Mechanisms to Innovative Interventions." NIDCD, P50 Autism Center of Excellence (5P50DC013027-04). **Goodwin Subcontract PI**. Tager-Flusberg PI, Boston University. Sep 2013 – Aug 2017. 1.2 aca, .48 sum mo. Annual NU direct: $96,193. Total NU direct over study period: $424,719. Total over study period: $10,000,000.
40. "Development of a New Technology for Assessing Pediatric Pain (NTAP)." NINR, R01. **Goodwin Subcontract PI**. Huang PI, University of California San Diego. Sep 2013 – Aug 2017. 1 cal mo. Annual NU direct: $61,489. Total NU direct over study period: $187,235. Total over study period: $3,246,414.
41. "I-Corps: Visualizing Physiological Synchrony." National Science Foundation. **Goodwin PI**. Jul 2017-Dec 2017. Total over study period: $50,000.

Completed Internal Funded Grants

42. "Visualizing Physiological Arousal in Real-Time to Enhance Communication, Self-Regulation, and Learning in Autism Spectrum Disorders." Tier I. **Goodwin PI**. Sep 2011 – Aug 2013. Total over study period: $50,000.
43. "Exploring the Use of Innovative Technologies in Behavioral Health." Tier I. **Goodwin Co-PI**. Lincoln PI, Northeastern University. Sep 2011 – Aug 2013. Total over study period: $50,000.

Completed Consulting on External Grants

44. "Emergence and Stability of Autism in Fragile X Syndrome." NIMH (3RO1MH090194-05S1). Roberts PI, University of South Carolina. May 2011 – Aug 2016.
45. "Atypical Effects of Reinforcement Procedures in ASD." NICHD (5R21HD075009-02). McIlvane PI, UMass Medical Center. Sep 2013 – Aug 2016.

Not Funded External Grants

46. "Collaborative Research: Creating New Experimental and Analytical Tools for Understanding the Development of Emotion Perception." National Science Foundation. **Goodwin Co-I**. Ostadabbas PI, Northeastern University. Sep 2018 – Aug 2021. 0.5 sum mo. Total NU direct over study period: $304,826.
47. "Repurposing of everyday technologies to provide just-in-time visual supports for minimally verbal children with Autism" HRSA. **Goodwin Co-PI**. Schlosser PI, Northeastern University. Sep 2017 – Aug 2020. 1.5 sum mo. Annual NU direct: $240,592. Total NU direct over study period: $721,421. Total over study period: $899,241.

48. "Towards Dyadic Models of Prevention: Elucidating the Role of Physiological Synchrony in Pediatric Obesity" NICHD R21. **Goodwin Co-I**. Rodgers PI, Northeastern University. Jul 2017 – Jun 2019. 0.8 sum mo. Total NU direct over study period: $275,000. Total over study period: $431,750.
49. "Transforming the Approach to Aggression in Autism (TAAG) Network: Predicting Developmental and Situational Onset in the Minimally Verbal." NIH Autism Centers of Excellence: Networks (RO1). **Goodwin Subcontract PI**. Siegel (Maine Medical) & Mazefsky (Univ. of Pittsburgh) PIs. Jul 2017 – Jun 2022. 1.4 ca. mo. Annual NU direct: $239,028. Total NU direct over study period: $1,195,140.
50. "Breathing to the beat: Evaluating a biobehavioral synchrony intervention to enhance breastfeeding in mother-infant dyads." HRSA. **Goodwin Co-PI**. Zimmerman PI, Northeastern University. Apr 2017 – Mar 2020. 1 sum mo. Annual NU direct: $191,051. Total NU direct over study period: $572,976. Total over study period: $898,413.
51. "Collaborative Research: A Multimodal Evaluation Testbed to Study Emotion Perception Decoding." NSF. **Goodwin Co-PI**. Ostadabbas PI, Northeastern University. Mar 2017 – Feb 2020. 0.5 sum mo. Annual NU direct: $99,112. Total NU direct over study period: $270,584. Total over study period: $408,878.
52. "Biobehavioral Analyses of Model Assessment and Intervention Procedures in ASD." NIH, R21. **Goodwin Co-PI**. Frazier, PI, UMass Medical Center. Apr 2017 – Mar 2019. 0.8 aca, 0.32 sum mo. Annual NU direct: $59,627. Total NU direct over study period: $107,823. Total over study period: $458,917.
53. "Multidimensional Pain Assessment in Children with Limited Ability to Self-report Pain." NINR, RO1. **Goodwin Co-PI**. Huang PI, University of California San Diego. Apr 2017 – Mar 2022. 2 aca, 1 sum mo. Annual NU direct: $105,026. Total NU direct over study period: $571,766. Total over study period: $2,828,668.
54. "Automated Detection of Stereotypical Motor Movements in Individuals with ASD." NIH, R21. **Goodwin PI**. Apr 2017 – Mar 2019. Total over study period: $414,919.
55. "Development of a Technology-Assisted Responsive Sensory Environment for Autistic Individuals to Promote and Maintain Affective and Behavioral Regulation." NSF SBIR Phase I. **Goodwin Co-PI**. Malott PI, SpaceFactory. Jan 2017 – Dec 2017. 0.5 sum mo. Annual NU direct: $27,808. Total over study period: $225,000.
56. Scaling Citizen Science for Population Health: The PMI Participant Technology Center." NIH. **Goodwin Co-I**. Intille PI, Northeastern University. Jun 2016 – May 2021. Total over study period: $44,312,904.
57. "Development of Opensource Tools Enabling Large-Scale Biosensor Data Acquisition and Analyses in Autism Research and Beyond." NIH DP2. **Goodwin PI**. Sep 2016 – Jun 2012. Total over study period: $1,500,000.
58. "A Paradigm Shift in the Science of Subjective Experience: Applications to the Understanding of Human Stress." NIH, Transformative RO1. **Goodwin Co-PI**. Feldman Barrett PI, Northeastern University. Aug 2016 – July 2022. Total over study period: $9,802,850.
59. "RAP: Revolutionizing Assessment of Pain using Mobile and Emerging Technologies." NIIH, Transformative RO1. **Goodwin Co-PI**. Huang PI, University of Southern California San Diego. Aug 2016 – Jul 2022.Total over study period: $9,657,540.
60. "Modeling and Detecting Habits to Support Real-Time Health Interventions." NSF, SCH. **Goodwin Co-PI**. Intille PI, Northeastern University. May 2016 – Apr 2019. Total over study period: $486,647.
61. "Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control." NCI, RO1. **Goodwin Co-I**. Desteno PI, Northeastern University. Sep 2015 – Aug 2019. Total over study period: $1,851,092.
62. "NRT-DESE: Behavioral Informatics to Support Health and Wellness." NSF, NRT. **Goodwin Co-PI**. Intille PI, Northeastern University. Sep 2015 – Aug 2020. Total over study period $2,999,971.
63. "Biobehavioral Analyses of Response to Model Assessment and Intervention Procedures in ASD." NICHD, U54. **Goodwin Subcontract PI**. McIlvane, PI, UMass Medical Center. Sep 2015 – Aug 2020. Total over study period $6,500,000.
64. "Integrative Behavior Assessment, Modeling, and Intervention (IBAMI)." NSF Expeditions. **Goodwin, Co-I**. Pavel PI, Northeastern University. Nov 2015 – Sep 2020. Total over study period $10,166,974.

65. Automated Detection of Stereotypical Motor Movements." Simons Foundation. **Goodwin, PI**. Sep 2015 – Aug 2017. Total over study period: $499,511.
66. "Integrated School Based Care for Youth with Autism Spectrum Disorder." PCORI. **Goodwin, Co-PI**. Hendren PI, University of California San Francisco. Jul 2015 – Jun 2018. Total over study period $2,004,339.
67. "A Paradigm Shift in the Science of Subjective Experience: Applications to the Understanding of Human Stress." NIH, Transformative RO1. **Goodwin Co-I**. Feldman Barrett PI, Northeastern University. Jul 2014 – Jun 2019. Total over study period: $9,018,501.
68. "NRT-DESE: Behavioral Computation: Real-time Scientific Exploration and Discovery to Support Personal Health." NSF, NRT. Goodwin, Co-PI. Intille PI, Northeastern University. Jan 2015 – Dec 2020. Total over study period: $2,650,533.
69. "Measuring and Motivating Dietary Habit Formation Using Mathematical Modeling of Behavior and Social Network Analysis. NSF, SCH. **Goodwin Co-PI**. Intille PI, Northeastern University. Sep 2014 – Aug 2016. Total over study period: $2,108,648.
70. "Air Pollution, Neighborhoods, and Autism Prevalence in the US." NIH, R21. **Goodwin Co-I**. Suh PI, Northeastern University. Sep 2014 – Aug 2016. Total over study period: $438,532.
71. "Personal Health Informatics: Technological Innovation Transforming Health and Wellness." NSF, IGERT. **Goodwin Co-PI**. Intille PI, Northeastern University. Jul 2012 – June 2017. Total over study period: $3,000,000.
72. "Developing Scalable Measures and Automated Analysis of Stereotypical Motor Movements." Autism Speaks, SBIR. **Goodwin Co-PI**. Albinali PI, Everyfit, Inc. Oct 2012 – Sep 2014. Total over study period: $100,000.
73. "Multi-method Assessment of Abnormal Sensory Responses in Nonverbal Children with Autism Spectrum Disorders." Autism Speaks. **Goodwin Co-PI**. PI Ben-Sasson, Hafia University. Jun 2012 – Mar 2014. Total over study period: $120,000.
74. "Developing a Low-cost, Easy-to-use, and Accurate System for Automatically Recognizing and Monitoring Stereotypical Motor Movements. Charles H. Hood Foundation. **Goodwin PI**. Mar 2012 – Feb 2014. Total over study period: $150,000.

TEACHING & ADVISING

Classroom Teaching (at Northeastern)

Lead Instructor, Adapted existing syllabus. Health Care Research (PHTH5240). Undergraduate. Taught Fall 2015 (19 students) and Fall 2014 (25 students).

Lead Instructor, Course Developer. Theoretical Foundations in Personal Health Informatics (HINF5200). Graduate. Taught Fall 2015 (13 students), Spring 2014 (6 students), Fall 2013 (6 students), and Fall 2012 (5 students).

Lead Instructor, Course Developer. Evaluating Scientific Evidence (PHTH5240). Graduate. Taught Spring 2014 (2 students).

Lead Instructor. Adapted existing syllabus. College: An Introduction (HSCI100). Undergraduate. Taught Spring 2014 (17 Students) and Fall 2013 (18 students).

Lead Instructor, Course Developer. Critical Appraisal of the Scientific Research Literature (PHTH5240). Graduate. Taught Summer 2013 (5 students) and Summer 2012 (8 students).

Advising and Mentoring Activities

Research Scientists

- Murat Akcakaya, Ph.D., College of Electrical and Computer Engineering. Advised 2012-2014. Funded.
- Ian Kleckner, Ph.D., Dept. of Psychology. Advised 2013-2015. Funded.
- Nancy Soja, Ph.D., Dept. of Health Sciences. Visiting appointment. Advised 2015-2018. Unfunded.

Postdoctoral Fellows

- James Heathers, Ph.D., Dept. of Health Sciences. Current. Funded.
- Rick Palumbo, Ph.D., Dept. of Health Sciences. Advised 2015-2018. Funded.
- Jillian Sullivan, Ph.D., Dept. of Health Sciences. Advised 2015-2017. Funded.

Doctoral Students

Primary Mentor

- Oliver Wilder-Smith, Ph.D. candidate, Personal Health Informatics, Dept. of Health Sciences. Funded. Graduated June 2017. Currently Post-doctoral fellow at the MIT Simons Center for the Social Brain.
- Alex Ahmed, Ph.D. candidate, Personal Health Informatics, Dept. of Health Sciences. Funded. Expected graduation June 2019. NSF Graduate Fellowship Recipient. NIH F31 Predoctoral Fellowship to Promote Diversity in Health-Related Research Recipient. 2018 Huntington 100 Recipient.
- Catalina Cumpanasoiu, Ph.D. candidate, Personal Health Informatics, Dept. of Health Sciences. Funded. Expected graduation June 2020.

Committee Member

- Rick Palumbo, Ph.D., Dept. of Psychology, University of Rhode Island, 2015.
- Heather McGhee, Ph.D., Dept. of Psychology, University of Rhode Island, 2015.
- Micah Eckhardt, Ph.D., Media Arts & Sciences, Media Lab, Massachusetts Institute of Technology, 2015.
- Siwei Liu, Ph.D., Developmental Quantitative Methods, College of Health and Human Development, Pennsylvania State University, 2012.
- Daniel Schulman, Ph.D., College of Computer and Information Science, 2012.
- Jackie Lee, Ph.D., Media Arts & Sciences, Media Lab, Massachusetts Institute of Technology, 2011.

Masters of Science

Committee Member

- Kelsey Thompson, Dept. of Communication Sciences & Disorders, 2015.
- Iris Chin, M.A., Dept. of Psychology, University of Connecticut, 2013.
- Steve Babbin, M.A., Dept. of Psychology, University of Rhode Island, 2012.
- Daniella Aube, M.A., Dept. of Psychology, University of Rhode Island, 2011.
- Sophia Yuditskaya, M.S., Media Arts & Sciences, Media Lab, Massachusetts Institute of Technology, 2010.

Undergraduate Capstone

- Alex DiNoto, B.A., Dept. of Health Sciences, Northeastern University, 2014.
- Hilary Andreff, M.A., Health Informatics, College of Computer and Information Science, 2014.
- Ashnee Patel, B.A., Dept. of Health Sciences, Northeastern University, 2016.

SERVICE

Northeastern University

Department

- Member, Masters of Public Health Admission Committee, Dept. of Health Sciences, 2014 – present.
- Member, Masters of Public Health Curriculum Committee, Dept. of Health Sciences, 2012 – present.
- Merit Review Committee, Dept. of Health Sciences, Fall 2011 – 2014 (Member), 2015 – 2017 (Chair).
- Member, Environmental & Occupational Health Faculty Search Committee, Health Sciences Dept., Fall 2011.

College

- Co-founding and key faculty member, Personal Health Informatics Doctoral Program, Dept. of Health Sciences, Bouvé College of Health Sciences & College of Computer and Information Science, Northeastern University, 2011 – present.
- Personal Health Informatics Open house, Fall 2012, 2013, 2014, 2015, 2016.
- Member, Faculty Hiring Committee, College of Computer and Information Science, 2015.
- Member, Dept. of Health Sciences Chair Search Committee, Bouvé College of Health Sciences, March 2013 –2015.

Professional Service

Discipline and Profession

- Executive Program Committee Member, Gatlinburg Conference, 2015 – present.
- Scientific Advisory Board Member, Autism Speaks, 2014 –2017.
- Faculty, National Institutes of Health, Office of Behavioral and Social Science Research, Mobile Health (mHealth) Training Institute, 2012 – present.
- External Advisor, Interagency Autism Coordinating Committee, Dept. of Health & Human Services, 2012.
- Executive Committee Member, Society for Ambulatory Assessment, 2011 – 2017.
- Executive Committee Member (Student Liaison, Web Committee, Nominations Committee, Conference Program Committee), International Society for Autism Research, 2008 – present.

Journal Reviewer

- Guest Editor, Special Issue on "Technologies in the Daily Lives of Individuals with Autism," Journal of Autism and Developmental Disorders, November 2015.
- Editorial Board Member, Autism: International Journal of Research and Practice, 2012 – present.
- Guest Editor, Special Issue on "Autism & Technology," Autism: International Journal of Research and Practice, January 2010.
- Editorial Board Member, Focus on Autism and Other Developmental Disorders, 2007–2015.

Regular reviewer for numerous professional journals including: American Journal of Intellectual and Developmental Disabilities, Autism: International Journal of Research and Practice, Autism Research, CHI, Computers in Biology & Medicine, Emotion, Focus on Autism and Other Developmental Disorders, IEEE Transactions on Accessible Computing, IEEE Transactions on Affective Computing, IEEE Transactions on Learning, Infant Mental Health, Interactive Mobile Wearable and Ubiquitous Technologies, International Journal of Child-Computer Interaction, International Journal of Human Computer Interaction, International Symposium on Wearable Computers, Journal of Autism and Developmental Disorders, Journal of Child Psychology and Psychiatry, Journal of Intellectual Disability Research, Journal of Neurodevelopmental Disorders, Methods of Information in Medicine, Molecular Autism, Nature Digital Medicine, Pediatrics, Pervasive, Psychological Science, Psychophysiology, Transactions on Accessible Computing, Translational Psychiatry, Ubicomp.

Grant Reviewer

Regular reviewer for National Science Foundation (CAREER, INSPIRE, CRI-IIS-HCC, Smart and Connected Health), National Institutes of Health (CPDD, AdopTech), Autism Speaks, Center for Integration of Medicine and Innovative Technology, EU Marie-Curie 'ASSISTD' Programme.