VITA **VALERIE K. OTERO**

School of Education
University of Colorado
Boulder, CO 80309-0249
Home Address 3877 Bosque Ct, Boulder, CO, 80301

Phone: 720.272.1315
Fax: 303.492.7090
e-mail: Valerie.Otero@Colorado.edu

PROFESSIONAL PREPARATION

University of New Mexico	Physics	B.S. 1991
University of California, San Diego	Geophysics	M.A. 1995
University of California, San Diego & San Diego State University	Mathematics & Science Education—Physics Education Research	Ph.D. 2001

APPOINTMENTS

2014-Present	Professor of STEM Education, University of Colorado Boulder
2010-Present	Executive Director, Colorado Learning Assistant Program and International Learning Assistant Alliance
2013-Present	Faculty Director, Physics through Evidence, Empowerment through Reasoning (PEER Physics)
2010-2017	Chair, Department of Math and Science, School of Education
2013-Present	Co-Director/Co-Founder, Center for STEM Learning
2003-2010	Director/Co-Founder, Colorado Learning Assistant Program
2008-2014	Associate Professor of Science Education, University of Colorado Boulder
2001-2008	Assistant Professor of Science Education, University of Colorado Boulder

PUBLICATIONS

Refereed Articles (current/former graduate students/post-docs in **bold**, K-12 teachers in ***bold-italics***)

Suárez, E. & Otero, V. (2023). *Ting, Tang, Tong*: Emergent bilingual students investigating and constructing evidence-based explanations about sound production, submitted to the *J. Res. Sci. Teach*, 2023; 1-33. DOI: 10.1002/tea.21868.

Lindsay, W. & Otero, V. (2023). Leveraging purposes and values to motivate and negotiate reform, *Science Education,* 2023; 1-30. DOI: 10.1002/sce.21815

Martins, J., Belleau, S., & Otero, V. (2021). PEER Physics: An evidence-based framework for inclusive physics curricula, *The Physics Teacher* **59**, 730 (2021); https://doi.org/10.1119/10.0007417

Harlow, D. Otero, V., Goldberg, F., Leak, A. Robinson, S., Price, E. (2020). Learning about teaching and learning while learning physics: An analysis of 15 years of responsive curriculum development, *Physical Review Physics Education Research* 16(2), DOI: 10.1103/PhysRevPhysEducRes.16.020155

Alzen, J. Langdon, L., & Otero, V. (2018). A logistic investigation of the relationship between the learning assistant model and failure rates in introductory STEM courses, *International Journal of STEM Education*, **5** (56), https://doi.org/10.1186/s40594-018-0152-1.

Top, L., Schoonraad, S., & Otero, V. (2018). Development of pedagogical knowledge among learning assistants, *International Journal of STEM Education*, **5** (1), https://doi.org/10.1186/s40594-017-0097-9.

Otero, V. & Meltzer, D. (2017). The past and future of physics education reform, *Physics Today,* **70** (5), 50-56, http://dx.doi.org/10.1063/PT.3.3555.

Otero, V. & Meltzer, D. (2017). A discipline-specific approach to the history of U.S. science education, *Journal of College Science Teaching,* 46(3), 34-39.

Gray, K., Webb, D., & Otero, V. (2016). Effects of the Learning Assistant Model on Teacher Practice, Phys. Rev. Phys. Educ. Res. 12, 020126.

Otero, V. & Meltzer, D. (2016). 100 years of attempts to transform physics education, *The Physics Teacher,* 54, 523, DOI: 10.1119/1.4967888.

Otero, V. (2015). Nationally scaled model for leveraging course transformation with physics teacher preparation, in C. Sandifer and E. Brewe (Eds.), *Recruiting and Educating Future Physics Teachers: Case studies and Effective Practices,* American Physical Society, College Park, MD., 107, ISBN: 978-0-9848110-5-2.

Meltzer, D. & Otero, V. (2015). A brief history of physics education in the U.S., *American Journal of Physics,* 83 (5), 447-458, DOI: 10.1119/1.4902397.

Meltzer, D. & Otero, V. (2015). Scholarly norms for writing history: response to John Rudolph, *American Journal of Physics,* 83 (11), 912.

Meltzer, D. & Otero, V. (2014). Transforming the preparation of physics teachers, *American Journal of Physics, 82* (7), 633-637.

Harlow, D., Swanson, L., Otero, V. (2014). Prospective elementary teachers' analysis of children's science talk in an undergraduate physics course. *Journal of Science Teacher Education, 25* (1), 97-117, DOI: 10.1007/s10972-012-9319-7.

Otero, V., Pollock, S., & Finkelstein, N. (2010). A Physics Department's Role in Preparing Physics Teachers: The Colorado Learning Assistant Model. *American J. of Physics,* 78(11), 1218-1224

Goldberg, F. Otero, V., & Robinson, S. (2010). Design principles for effective physics instruction: A case from Physics and Everyday Thinking. *Am. J. of Physics,* 78(12), 1265-1277.

Otero, V. & **Gray, K.** (2008). Attitudinal gains across multiple universities using the Physics and Everyday Thinking curriculum. *Physics Review Special Topics, Physics Education Research*, 4, 020104-020107, https://doi.org/10.1103/PhysRevSTPER.4.020104..

Otero, V., & Nathan, M. (2008). Pre-service elementary teachers' conceptions of their students' prior knowledge. *Journal of Research in Science Teaching*, *45* (4), 497-523.

Otero, V. (2006). Moving beyond the "get it or don't" conception of formative assessment. *Journal of Teacher Education*, *57*(3), 247-255, https://doi.org/10.1177/0022487105285963.

Otero, V., Finkelstein, N., McCray, R., & Pollock, S. (2006). Who is responsible for preparing science teachers? *Science, 313*(5786), 445-446.

Harlow, D., & Otero, V. (2005) Collaboration physics: Elementary teachers and university researchers join forces to help students construct understandings of friction—and discover something of the nature of science in the process. *Science and Children*, *42*(5), 31-35.

Otero, V., Peressini, D., Anderson, K., Ford, P., **Garvin, T**., **Harlow, D**., Mears, C., **Reidel, M**., & **Waite, B**. (2005). Integrating technology into teacher education: A critical framework for implementing reform. *Journal of Teacher Education*, *56*(1), 8-23.

Otero, V., Johnson, A., & Goldberg, F. (1999). How does the computer facilitate the development of physics knowledge among prospective elementary teachers? *Journal of Education*, *181*(2), 57-89.

Book Chapters

Otero, V. & Alicea-Muñoz, E. (2023). Research on the development of faculty, graduate research assistants, and undergraduate learning assistants. In *International Handbook of Physics Education Research: Teaching Physics,* edited by M. E. Taşar and P. Heron *(*AIP Publishing, Melville, New York, 2023), pp. 16.1-16.20.

Otero, V., **Harlow, D**. & Meltzer, D. (2023). Qualitative methods in physics education research, In *International Handbook of Physics Education Research: Teaching Physics,* edited by M. E. Taşar and P. Heron *(*AIP Publishing, Melville, New York, 2023), pp 25.1-25-32.

Sorge, S., Otero, V., & Lavonen, L. (2023). Pre-service physics teacher education, In *International Handbook of Physics Education Research: Teaching Physics,* edited by M. E. Taşar and P. Heron *(*AIP Publishing, Melville, New York, 2023), pp 14.1-14.20

Otero, V. (2023). The Learning Assistant Model for Engaging Students, in *Effective Practices in Physics Education,* IOP Publishing, United Kingdom.

Otero, V. (2021). When you stop learning how to teach, you stop teaching people how to learn*,* In Grimes, A., Schrode, N., Stober, R. & Wachowski, S. (2021). *Honoring Teachers As Professionals: Stories and pathways for growth in your Classroom and career*, AIP Publishing, Melville: NY.

Otero, V., Pollock, S., & Finkelstein, N. (2011). A Physics Department's Role in Preparing Physics Teachers: The Colorado Learning Assistant Model. Teacher Education in Physics, in D. Meltzer and P. Shaffer (Eds.) Teacher Education in Physics: Research, Curriculum, and Practice, American Physical Society, College Park, MD, 84-90.

Goldberg, F. Otero, V., & Robinson, S. (2011). Design principles for effective physics instruction: A case from Physics and Everyday Thinking. In D. Meltzer and P. Shaffer (Eds.) Teacher Education in Physics: Research, Curriculum, and Practice, American Physical Society, College Park, MD, 33-45.

Otero, V. & **Harlow, D**. (2009). Getting Started in Qualitative Physics Education Research. In C. Henderson and K. Harper (Eds.), Review of Physics Education Research, 1 (2).

Works in Progress

Top, L. and Otero, V. (in preparation). Beyond pedagogical content knowledge: Learning Assistants facilitate social and academic integration. To be submitted to *Science Education.*

Otero, V., **Nissen, J., and Van Dusen, B.** (in preparation). Tools for evaluating student success and affect for practitioners and researchers: LASSO. *To be submitted to the International Journal of STEM Education.*

Lindsay, W. and Otero, V. (resubmitted). "Students really benefited from that hybridization": Facilitated sensemaking in a no-excuses charter network, resubmitted to *Science Education.*

Peer-Reviewed Conference Proceedings

Mitchell-Polka, K., Lindsay, W., Martins, J. and Otero, V. (2020). The physics classroom as a space for empowerment, in S. Wolf, M. Bennet, B. Frank (Eds.) *2020 Physics Education Research Conference Proceedings,* 340-345, https://doi.org/10.1119/perc.2020.pr.Mitchell-Polka

Lindsay, W.E., & Otero, V.K. (2020). The possibilities and limitations of infrastructuring with a no-excuses charter network*. Proceedings of the 14th International Conference of the Learning Sciences* [Virtual Conference, June 19-24, 2020], edited by M. Gresalfi and I.S. Horn.

Lindsay, W.E. & Otero, V.K. (2019, April) *Institutional Tensions Surfaced by Pedagogical Reform: NGSS Implementation in a "No-Excuses" Context.* Paper presented at the annual meeting of the American Educational Research Association, Toronto, CA.

Lindsay, W.E. & Otero, V.K. (2019, April) *The Influence of Institutional Elements in Reforming.* Paper presented at the annual meeting of the National Association of Research on Science Teaching, Baltimore, MD.

Lindsay, W., Belleau, S., & Otero, V. (2018). PEER Suite: A holistic approach to supporting inductive pedagogy implementation, in L. Ding, A. Traxler, and Y. Cao (Eds.), *2018 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY http://dx.doi.org/10.1119/perc.2018.pr.Lindsay

Alzen, J., Langdon, L., & Otero, V. (2018). The Learning Assistant Model and DWF rates in introductory physics, in L. Ding, A. Traxler, and Y. Cao (Eds.), *2017 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY, 36. http://dx.doi.org/10.1119/perc.2017.pr.004

Van Dusen, B., Langdon, L. & Otero, V**.** (2016). Learning Assistant Supported Student Outcomes (LASSO) study initial findings, in A. Churukian, D. Jones, and L. Ding (Eds), 2015 PERC Proceedings, AIP Press: Melville, NY, 343.

Ross, M., Van Dusen, B., & Otero, V. (2014). Becoming Agents of Change through Participation in a Teacher-Driven Professional Research Community, in Proceedings for the 2014 International Conference of the Learning Sciences, Boulder, CO, June 22-27.

Suarez, E. & Otero, V. (2014). Leveraging the Cultural Practices of Science for Making Discourse Accessible to Emerging Bilingual Students, in Proceedings for the 2014 International Conference of the Learning Sciences, Boulder, CO, June 22-27.

Belleau, S. & Otero, V. (2013). Scientific Practices: Equalizing Opportuities for Linguistically Diverse Students, in P. Engelhardt, A. Churukian, D.L. Jones (Eds.), *2013 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Grimes*,* A. & Otero, V. (2013). The Effects of Flexibility on Homework Completion and Student Performance, in P. Engelhardt, A. Churukian, D.L. Jones (Eds.), *2013 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Nicholson-Dykstra, S., **Van Dusen, B**. & Otero, V. (2013). Teaching to Learn: iPads as Tools for Transforming Physics Students' Roles, in P. Engelhardt, A. Churukian, D.L. Jones (Eds.), *2013 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Suarez, E. & Otero, V. (2013). Physics as a Mechanism for Including ELLs in Classroom Discourse, *2013 Physics Education Research Conference Proceedings.* Melville, NY.

Ross, M. & Otero, V. (2012). Challenging Traditional Assumptions of Secondary Science through the PET Curriculum, in S. Rebello, P. Engelhardt, & A. Churukian (Eds.), *2012 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Suarez, E. & Otero, V. (2012). "Because it hibernates faster": 3rd grade English Language Learners making sense of sound, in S. Rebello, P. Engelhardt, & A. Churukian (Eds.), *2012 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Van Dusen, B. & Otero, V. (2012). Influencing high school students' relationships with physics through culturally appropriate tools, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2012 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Belleau, S. & Otero, V. (2012). Critical Classroom Structures for Empowering Students to Participate in Scientific Discourse, in S. Rebello, P. Engelhardt, & A. Churukian (Eds.), *2012 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Barr, S., Ross, M., & Otero, V. (2012). Using Artifact Methodology to Compare Learning Assistants' and Colleagues' Classroom Practice, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2011 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press, 119-122.

Belleau, S.**, Ross,** M., & Otero, V. (2012). Implementation of Physics and Everyday Thinking in a High School Classroom: Concepts and Argumentation, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2011 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Gray, K., Webb, D., & Otero, V. (2012) Effects of the Learning Assistant Experience on In-Service Teachers' Practices, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2011 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press, pp.199-202.

Ross, M. Van Dusen, B., ***Sherman, S.*** & Otero, V. (2012). Teacher-Driven Professional Development and the Pursuit of a Sophisticated Understanding of Inquiry, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2011 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Van Dusen, B. & Otero, V. (2012). Changing Roles and Identities in a Teacher-Driven Professional Development Community, in S. Rabelo, C. Singh, & P. Engelhardt (Eds.) *2011 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Otero, V. (2010). Science Learning as the Objectification of Discourse, *International Conference of the Learning Sciences,* June 28-July 2, 2010, Chicago, IL.

Gray, K., Webb, D. & Otero, V. (2010). Are Learning Assistants Better K-12 Science Teachers? In C. Henderson, M. Sabella, & C. Singh (Eds.) *2009 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Otero, V. (2009). Evolution of Theoretical Perspectives in my Research. In C. Henderson, M. Sebella, & C. Singh (Eds.) *2009 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Gray, K. & Otero, V. (2009). Analysis of former Learning Assistants' Views on Cooperative Learning. In C. Henderson, M. Sabella, & C. Singh (Eds.) *2009 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Gray, K. & Otero, V. (2008). Analysis of Learning Assistant's Views of Teaching and Learning. McCullough, L. Hsu & P. Heron, (Eds.) *2008 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press.

Otero, V., & **Gray, K.** (2007). Learning to think like scientists with the PET curriculum. In L. McCullough, L. Hsu & P. Heron, (Eds.), *2007 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press,160-163.

Finkelstein, N., Turpen, C., Pollock, S., Dubson, M., Iona, S., Keller, C., & Otero, V. (2006). Evaluating a model of research-based practices for teacher preparation in a physics department: Colorado PhysTEC. In P. Heron, L. McCullough, & J. Marx (Eds.), *2005 Physics Education Research Conference Proceedings.* Melville NY: AIP Press, 3-6.

Harlow, D. & Otero, V. (2007). Beyond Concepts: Transfer from inquiry-based physics to elementary classrooms., In L. McCullough, L. Hsu, and P. Heron (Eds.), *2006 Physics Education Research Conference Proceedings.* Melville NY: AIP Press, 73-76.

Harlow, D., & Otero, V (2006). Talking to learn physics and learning to talk physics. In P. Heron, L. McCullough, & J. Marx (Eds.), *2005 Physics Education Research Conference Proceedings.* Melville NY: AIP Press, 53-56.

Harlow, D., & Otero, V. (2005). Learning physics by listening to children. In J. Marx, P. Heron, & S. Franklin (Eds.), *2004 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press, 105-108.

Otero, V. (2004). Cognitive processes and the learning of physics, Part I: The evolution of knowledge from a Vygotskian perspective. In E. F. Redish & M. Vicentini (Eds.), *Proceedings of the International School of Physics "Enrico Fermi" Course CLVI*, *Italian Physical Society* (pp. 409-445). Amsterdam: IOS Press.

Otero,V. (2004). Cognitive processes and the learning of physics. Part II: Mediated action. In E. F. Redish & M. Vicentini (Eds.), *Proceedings of the International School of Physics "Enrico Fermi" Course CLVI*, *Italian Physical Society* (pp. 446-471). Amsterdam: IOS Press.

Goldberg, F., & Otero, V. (2001). The roles of laboratory and computer simulator experiments in helping students develop a conceptual model of static electricity. In D. Psillos, P. Kariotoglou, V. Tselfes, G. Bisdikian, G. Fassoulopoulos, E. Hatzikraniotis, & M. Kallery (Eds.), *Proceedings of the Third International Conference on Science Education Research in the Knowledge-Based Society* (pp. 29-31). Thessaloniki: Art of Text.

Niedderer, H., Fischer, H., Goldberg, F., Jorde, D., Hucke, L., Otero, V., Sander, F., Slotta, J., Strømme, A., Tiberghien, A., & Vince, J. (2003). Research about the use of information technology in science education. In D. Psillos et al. (Eds.), *Science education research in the knowledge-based society* (pp. 309-322). Dordrecht: The Netherlands: Kluwer.

Harlow, D., & Otero, V (2004). An examination of children's scientific argumentation. In J. Marx, S. Franklin, & K. Cummings (Eds.), *2003 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press, 145-148.

Otero, V. & Nathan, M. (2004). "After I gave students their prior knowledge…" Pre-service teachers' conceptions of students' prior knowledge. In J. Marx, S. Franklin, & K. Cummings (Eds.), *2003 Physics Education Research Conference Proceedings.* Melville, NY: AIP Press, 141-144.

Otero, V., & Nathan, M. (2003). Elementary pre-service teachers' conceptions of students' prior knowledge. In K. Cummings, J. Marx, & S. Franklin (Eds.), *2002 Physics Education Research Conference Proceedings*. Melville, NY: AIP Press, 123-128.

GRANTS Submitted Pending

2023-2028 Principal Investigator: Valerie Otero, Title: Diversifying educational leadership through innovation and facilitation. **$2,999,014 Total Request**

GRANTS Submitted Declined

2023-2028 Principal Investigator: Valerie Otero, Title: "Diversifying Educational Leadership Through Alignment (DELTA)" **$1,987,310 Total Request**

GRANTS AND GIFTS (Awarded)

2023-2028 Principal Investigator: Valerie Otero, Title: "Building inclusive classrooms: Diversifying instructional teams with Learning Assistants," IMPACT Grant awarded by the Office of the Senior Vice Chancellor for Diversity, Equity, and Inclusion. **$426,297 Total Award**

2022-2026 Principal Investigator: William Lindsay, Co-PI: Ian Her Many Horses, Valerie Otero, Ambika Kamath, Title: "Community Centered Pathways for Equity and Justice in STEM Education." NSF-DUE-2243353, **$1,198,594 Total Award**

2022-2023 Principal Investigator: V. Otero, Co-PIs: John Keller, Shelly Belleau, Emily Quinty. Project Title: Elementary STEM Collaborative, CU Boulder SEED Grant **$47,047 Total Award**

2022-2023 Principal Investigator: V. Otero. Co-PI: Shelly Belleau and Emily Quinty: Project Title: "Timmerhaus Expansion Project: High School and University Collaboration" CU Boulder **$49,987 Total Award**

2022-2024 Principal Investigator: V. Otero. Project Title: Leveraging the Learning Assistant Infrastructure to disseminate technologically rich educational environments across three campuses." CU Next Award for collaborative work among 3 campuses. **$300,000 Total Award**

2020-2022 Principal Investigator: V. Otero: Project Title: "Collaborative Research: Scaling Undergraduate STEM Transformation And Institutional Networks for Engaged Dissemination (SUSTAINED)." NSF-DUE-1525338 Supp. **$379,348 Total Award**

2015-2022 Principal Investigator: V. Otero: Project Title: "Collaborative Research: Scaling Undergraduate STEM Transformation And Institutional Networks for Engaged Dissemination (SUSTAINED)." NSF-DUE-1525338 **$2,519,97 Total Award**

Collaborating universities received an additional $480,000 as a part of this grant

2015-2022 Principal Investigator, V. Otero: Project Title: "Collaborative Research: Teacher Research Teams II: Expanding Pathways," NSF-Noyce Partnership with Front Range Community College **$924,230 Total Award**

2018-2021 Principal Investigator: V. Otero: Project Title: "Collaborative Research: Investigating the Persistence and Trajectories of Noyce Master Teaching Fellows" NSF-DUE 1758462 **$ 98,654 Total Award**

2013-2021 Principal Investigator, V. Otero with Co-Is L. Langdon and S. Pollock: NSF DUE-1340083, Project Title: "Streamline to Mastery Phase II: Teacher-Led Professional Partnerships" **$1,800,000 Total Award**

2015-2019 Principal Investigator, V. Otero: Project Title: "Grand Challenge: Education for Global Issues," University of Colorado Boulder Internal Competition, **$389,200 Total Award**

2012-2019 Principal Investigator, V. Otero: NSF DUE-1240073, Project Title, “STEM Colorado Teaching to Learn Program” **$799,998 Total Award**

2014-2016 Principal Investigator, V. Otero: Halliburton Foundation Gift with collaborators University of Colorado Denver. Learning Assistants to Prepare STEM Workforce **$60,000 Total**

2014-2015 Principal Investigator, V. Otero: Gill Foundation, Project Title: Professional Development for Enacting the NGSS through the PET Curriculum, **$40,000 Total**

2013-2015 Principal Investigator, V. Otero with Co-I L. Langdon: NSF-DRL-1317059, Project Title: “From STEM major to Enacting the NGSS (FUSE)” **$99,944 Total Award**

2013-2014 Principal Investigator, V. Otero: Gill Foundation, Project Title: Physics and Everyday Thinking Curriculum Development and Professional Development Project, $35,000

2013-2016 Principal Investigator, N. Finkelstein, Co-Investigator V. Otero, AAU-1550774, Project Title: “Undergraduate STEM Education” **$500,000 Total Award**

2012-2013 Principal Investigator, V. Otero: Ball Aerospace, Project Title: “Ball Scholars Program” **$24,000 Total Award**

2010-2015 Principal Investigator, Tom Cech with V. Otero: Howard Hughes Medical Institute, “Studying and Scaling the Learning Assistant Program of Teacher Education and Institutional Change” **$300,000 Total Award**

2009-2015 Principal Investigator, V. Otero with Co-Is L. Langdon and N. Finkelstein: NSF DUE-0934921, Project Title: “Streamline to Mastery Phase I” **$1,499,569 Total Award**

2009-2014 Principal Investigator V. Otero with Co-Is M. Klymkowsky, S. Pollock, & D. Briggs: Division of Undergraduate Education, National Science Foundation: NSF DUE-0554615, Project Title, “Learning Assistant Model for Teacher Education in Science and Technology (LA-TEST).” **$2,493,149 Total Award**

2009-2012 Principal Investigator, V. Otero with M. Klymkowsky, D. Webb, S. Pollock, N. Finkelstein: NSF DUE-0833258, Project Title, “STEM/Noyce Fellowship Program Phase II.” **$500,000 Total Award**

2009-2013 Senior Personnel/Co-author: PI: Phil DiStefano, NSF I-3, *Towards a Center for Science Technology Engineering & Math Education* **$998,600 Total Award**

2008-2011 Principal Investigator V. Otero with Co-I M. Klymkowsky: National Mathematics and Science Initiative (Exxon/Mobile Funding). Project Title, “The CU-Teach Replication Program.” **$2,397,133 Total Award**

2008-2011 Principal Investigator F. Goldberg with Co-Is V. Otero, E. Price, S. Robinson, & R. Kruse: Division of Undergraduate Education-Course, Curriculum and Laboratory Improvement. Project Title, “Developing a Large-Enrollment Physical Science Curriculum.” **$499,946 Total Award**

2004-2008 Principal Investigator V. Otero with Co-Is R. McCray, J. Curry, & W. Wood: DUE, National Science Foundation DUE-0434144. Project Title, “Colorado STEM/Noyce Fellowship Program.” **$500,000 Total Award**

2004-2007 Co-Principal Investigator: American Physical Society #1540955. Project Title, “Colorado PhysTEC.” **$424,576 Total Award**

2003-2006 Principal Investigator R. McCray with Co-Is V. Otero, J. Curry, C. Wieman, & W. Wood: Education & Human Resources/Division of Undergraduate Education, National Science Foundation NSF-0203022, EHR/DUE. Project Title, "Transforming Science & Mathematics Teacher Preparation." **$932,847 Total Award**

2001-2008 Principal Investigator: F. Goldberg with Co-Is V.Otero & S. Robinson: National Science Foundation ESI-0096856, Project Title, "Professional Development Materials for Constructing Physics Understanding Among Prospective and Practicing Elementary Teachers." **$2,021,747 Total Award**

INVITED PRESENTATIONS, PLENARYS, AND KEY NOTE PRESENTATIONS

International

Otero, V. & Finkelstein, N. (2024). Svend Pedersen Award Lecture: Institutional Change and the LA Model, Stockholm, Sweden, January, 2024.

Otero, V. (July 2023). The Learning Assistant Program in the Egyptian Context, 6-day workshop for professors from five Egyptian universities who are implementing the LA model, Cairo, Egypt, July 6-14, 2023.

Otero, V., McIntosh, B., Landgon, L., Close, E. (2022, June). First Nordic Regional Workshop: The Learning Assistant Model, 3-Day workshop invited by the University of Oslo, Oslo, Norway, June 7-10, 2022.

Quinty, E., Belleau, S. and Otero, V. (2022, August). 3-Day workshop for over 20 physics teachers in Latvia, August 8-10.

Otero, V. (2021). The Learning Assistant Model and Its Impacts, Presented at the Annual Meeting of the Research Institute for Higher Education, Hiroshima, Japan. Attended by scholars from 27 Japanese and Chinese universities, March 12, 2021.

Otero, V. (2020, November 14). The pandemic presents rare opportunities for paradigm shifts in education, International Learning Assistant Conference, November 14-17, 2020.

Otero, V. (2018, November 3-5). Managing Growth, Taking on New Roles, and Assisting Faculty in the Change Process, *Presented at the International Learning Assistant Conference (representatives from 5 countries attending),* November 3-5.

Otero, V. (2013, September). Learning as a Social Practice: A lens for establishing equity and access across multiple populations and contexts in Science, Math and Engineering, Key Note at the *International Realistic Mathematics Conference,* Boulder, CO, Sept. 27-29.

Otero, V. (2012). Participatory model for STEM faculty change, presented at the University of Copenhagen, November 23, 2012.

Otero, V. (2011, January). Future Directions in Science Education and Science Teacher Preparation, *The First Annual Conference on Teaching and Learning in Higher Education as a Tool for Progress,* January 13-18, 2011, Ryiadh, Saudi Arabia.

Otero, V. (2009, October). Moving Education Outside the Classroom: 21st century model for science education and teacher preparation, October 30, 2009, Ewah Woman's University, Seoul, Korea.

Otero, V. (2009, October). New Directions for Teacher Preparation. October 31, 2009, Ewah Woman's University, Seoul, Korea.

Otero, V. & **Ross, M**. (2009, September). Authentic Science Activities In The Primary Level Classroom: Investigating the Effects of a Data Collection and Analysis Interface on Primary Level Students' Scientific Literacy. Paper presented at the Multimedia in Physics Teaching and Learning**,** 23-25 September 2009 University of Udine, Italy.

Otero, V. (2003, July). *Qualitative research on student conceptual development: The need for a theoretical framework*. Paper presented at the Enrico Fermi Summer School in Physics Education Research, Varenna, Italy.

National: University and University Systems Invited Keynote and Colloquia

Otero, V. and Meltzer, D. (2023). Lillian McDermott: Physicist, Educator, Activist, Presented at a special session at the University of Washington Seattle, honoring Lillian McDermott, January 18, 2023.

Otero, V. (2021, April). Beyond College and Workforce Preparation—Integration of the whole person, presented at University of Massachusetts Amherst, April 6, 2021.

Otero, V. (2021, March), How do students find love for themselves through physics? Presented at Tufts University, March 5, 2021.

Otero, V. (2021). Learning Assistant Program and Its Impacts: Beyond pedagogical content knowledge, presented at the California State University System Peer Learning Series, January, 8, 2021 (series ran from January 8 through March, 2021).

Otero, V. (2019, March). Improving Undergraduate STEM instruction through the use of Learning Assistants, Boston University, *Presentation for Boston University STEM faculty,* March 6, 2019--*invited.*

Otero, V. and Belleau, S. (2018, July). Transforming courses, Engaging Teachers, and Assessing Multiple Dimensions with the PEER Suite, presented at the meeting of the American Association of Physics Teachers Summer Meeting, July 27-August 1, Washington, D.C.

Belleau, S. and Otero, V. (2018, July). Three-Dimensional Assessment in High School Physics, presented at the meeting of the American Association of Physics Teachers Summer Meeting, July 27-August 1, Washington, D.C.

Otero, V. (2018, December). The Learning Assistant Model as a Catalyst for Instructional Innovation and Institutional Change, *Invited presentation for faculty and administrators at Michigan State University.*

Otero, V. (2018, December). LA Campus Software for Managing Your LA Program, *Invited workshops for faculty and administrators at Michigan State University.*

Otero, V. (2018, May). The Past and Future of Physics Education Reform, *Invited presentation and workshops for faculty at the University of New Mexico, Department of Physics and Astronomy.*

Otero, V. (2018, March). The Learning Assistant Model as a Catalyst for Institutional Change and Building Inclusive Learning Environments, *Invited presentation at Chicago State University.*

Otero, V. (2017, February). The Learning Assistant Model as a Catalyst for Institutional Change, *Invited presentation and workshops for faculty at the University of Georgia, Athens, GA.*

Otero, V. (2014, November). If you want to hang out with me, stop calling me stupid! Colloquium to the Discipline-Based Educational Research community at Florida International University, November 14, 2014.

Otero, V. (2012, April). A physics departments' role in addressing the crisis in physics education, presented at the physics colloquium, Michigan State University.

Otero, V., Vokos, S., Kramer, L., & Close, H. (2011, November). The Colorado Learning Assistant Program, Presented to Science, Math, and Education Faculty at University of Colorado, Denver.

Otero, V. (2011, February). Transforming Classrooms So they Align with How Students Learn, *Scientia,* Rice University, February 11-12, 2011, Houston, TX.

Otero, V. (2010, May). Experiential Learning Model for STEM Education, Faculty Development, and Teacher Preparation. Presented at the Science Education Colloquium at University of Michigan, May 10-12, 2010.

Otero, V. (2010, March). Improving Physics Instruction Using Learning Assistants, Presented at the Colorado School of Mines, Physics Colloquium, March 9, 2010.

Otero, V. (2010, February). Preserving Excellence in Undergraduate Education at a Relatively Low Cost. Presented at Auburn University, sponsored by the Association of Public and Land Grant Universities, February 22, 2010. Auburn, AL.

Otero, V. & Finkelstein, F. (2009, May). Colorado Learning Assistant Model, presented to the Montana Math and Science Teacher Initiative Steering Committee-*invited by President George M. Demison,* University of Montana System.

Otero, V. (2009, March). The evolution of elementary teachers' model-building practices. Distinguished lecture series, San Diego State University, March 2010.

Otero, V. (2008, March) Are you responsible for preparing science teachers? Colloquium presented at the University of Michigan Multi-disciplinary science group, Ann Arbor, MI.

Otero, V. (2008, October). Research departments' responsibilities for preparing future science teachers. Colloquium presented at the University of Rutgers Multi-disciplinary science group at Rutgers University.

Otero, V. (2008, October). A Longitudinal Study on Pedagogical Content Knowledge: Synthesizing Research on Content, Pedagogy, and Practice, Keynote speaker for IDEA Institute ribbon cutting ceremony, University of Michigan, Ann Arbor, MI.

Otero, V. (2007, August). *The Learning Assistant model for recruiting talented math and science students to careers in teaching.* Workshop conducted for the University of North Carolina System, University of North Carolina, Chapel Hill. –*Invited by President Erskine Bowles, President of North Carolina System.*

Otero, V., & STEM Colorado/PhysTEC Team. (2006, December). *Who is responsible for recruiting and preparing science teachers?* Presented at Texas State University, San Marcos.

Otero, V. (2001, April). *A cognitive system: Students' evolving conceptions of electrostatics and the evolving social and material environment*. Presented to the Department of Physics, Ohio State University, Columbus.

Invited Presentations at National Conferences and Professional Meetings

Otero, V. and Meltzer, D. (2023). Lillian McDermott as Mentor, Model, and Inspiration, Presented at the Winter Meeting of the American Association of Physics Teachers, Portland, OR. January 15-18.

Otero, V. (2022). Building Inclusive Classrooms: Diversifying Instructional Teams with LAs, presented at the International Learning Assistant Conference, Boulder, CO, November 9-12, 2022.

Otero, V. (2022). The Challenges of Institutional Racism, Presented at the Diversity, Equity, Inclusion and Belonging Session for 3Q:DEPT, a National Digital Marketing Company, August 24, 2022.

Otero, V. (2022). The role of identity in the learning process, presented at the April Meeting of the American Physical Society, New York, April 9-12, 2022.

Otero, V. & Langdon L. (2022) Learning Assistant Apps and Resources, PhysTEC Conference, March 3-6, 2022.

Otero, V. (2021). Beyond college and workforce preparation: Integration of the whole student, presented at the National Conference to Advance POGIL practice, June 30, 2021, virtual.

Otero, V. (2021). Learning Assistants collaborate with faculty to build inclusive learning environments leading to valued outcomes, presented at the April Meeting of the American Physical Society, April 17-20, 2021.

Otero, V., Quinty, E., and Belleau, S. (2020). Physics through Evidence, Empowerment through Reasoning, American Physical Society PhysTEC conference, Feb. 29 - March 1.

Otero, V., Langdon, L., Close, E., and Evans, B. (2020). Essential Elements for Setting Up Your LA Program, American Physical Society PhysTEC conference, Feb. 29 - March 1.

Otero, V. (2020). Doing Physics While Being a Carnie, presented at the American Association of Physics Teachers summer meeting, Virtual, July 18-22, 2020).

Otero, V. (2020). Panel Participant, Physics Education Research Conference Bridging Session with the American Association of Physics Teachers, Virtual Conference July 22-23.

Otero, V. (2020). The Challenges of Institutional Racism, Local Science Engagement Network of the American Association for the Advancement of Science (AAAS), September 30.

Otero, V. (2019, March) Improving undergraduate physics instruction and physics teacher preparation through the use of Learning Assistants, *Invited* presentation at the American Physical Society March meeting, Boston, MA, March 4, 2019—*invited.*

Otero, V. (2019, March). LA Campus software for managing your program and collecting longitudinal data, *Workshop presented at the annual PhysTEC meeting,* Boston, MA, March 4, 2019.—Invited.

Otero, V. (2019, April). Learning Assistant Model for Building Equitable Learning Environments, *presented* at the American Physical Society April Meeting, Denver, CO, April 16—*Invited.*

Otero, V. (2017, February). Using Resources, Tools, and Assessments from the International Learning Assistant Alliances Portal to Transform Your University, *Physics Teachers Education Coalition (PhysTEC), Atlanta Georgia.*

Otero, V. (2016, November). Inclusive pedagogy and engaged learning in foundational courses, presented at the conference, *Reinventing Undergraduate Education: A Blueprint for America's Research Universities,* Washington, D.C. November 11-12.

Otero, V. (2016, July). Theoretical Frameworks in Qualitative PER, presented at the meeting of the American Association of Physics Teachers, Sacramento, CA, July 16-20.

Otero, V. (2016, May). The Learning Assistant Model: A catalyst for educational change, presented at the Institution for Teaching and Learning (TILT), A university wide faculty event, Colorado State University, May 18-19, 2016.

Otero, V. (2016, April). International Learning Assistant Alliance: Social Organizing System for Sharing Resources and Building Institutional Networks, Presented at Envisioning the Future of Undergraduate STEM Education, Washington, D.C., April 27-29, Washington, D.C.

Otero, V. (2016, March). Teacher Research Teams: Recruitment, preparation, induction, and professional development, presented at the annual conference of the Physics Teachers Education Coalition, Baltimore, MD, March 11-13.

Otero, V. (2016, January). Forgetting History and Other Reasons Change is Hard: Clashing Perspectives, presented at the biannual meeting for the American Association of Physics Teachers, New Orleans, LA, January 9-12, 2015.

Otero, V. (2015, June). State of the Field of Physics Education Research, presented at the Foundations and Frontiers of Physics Education Research Conference, Bar Harbor, ME, June 15-19.

Otero, V. (2015, February). Teacher Research Teams: Recruitment, Induction, and Professional Development, presented at the Physics Teachers Education Coalition, Seattle, WA, February 5-7.

Otero, V. and Taylor, E. (2015, February). How Children Learn Math and Science, *Chautauqua Education Series: Learning in and Out of School,* Boulder, CO, February 18, 2015.

Otero, V. (2015, January). Teacher Research Teams: Dual roles for teachers impact their practice, presented at the biannual meeting for the American Association of Physics Teachers, San Diego, CA, January 5-7, 2015.

Quinty, E. & Otero, V. (2015, January). Collaborative PER as a form of teacher induction and mentoring, presented at the biannual meeting for the American Association of Physics Teachers, San Diego, CA, January 5-7, 2015.

Otero, V. (2014, June). Streamline to Mastery and Teacher Research Teams: A model for teacher-led professional development, presented at Colorado Integration Showcase, June 16-18, Vail Colorado.

Otero, V. (2013). The Colorado LA Model: Variations, Trade-Offs, and Differential Goals, presented at the biannual meeting of the American Association of Physics Teachers, July, 2013, Portland, OR.

Otero, V. (2013). Colorado Learning Assistant Program as a Model for Institutional Change: critical elements, national impacts, local implication, presented at the biannual meeting of the American Association of Physics Teachers, January, 2013, New Orleans, LA.

Otero, V. (2012). Towards a national research agenda for the Colorado Learning Assistant Model, Invited poster session presented at the annual Physics Education Research Conference, Philadelphia, PA., July, 2012.

Otero, V. (2012). Conceptual Change to Critical Race Theory: Spectrum of PET Research, Presented at the meeting of the American Association of Physics Teachers, July 2012, Philadelphia, PA.

Otero, V. (2012). Writing for Academic Journals, Invited Panel, Presented at the biannual meeting of the American Association of Physics Teachers, July 2012, Philadelphia, PA.

Ross, M., ***Belleau, S.,*** Otero, V. (2012). Challenging Traditional Assumptions of Secondary Science through the PET Curriculum, Presented at the biannual meeting of the American Association of Physics Teachers, July 2012, Philadelphia, PA.

Gray, K. & Otero, V. (2012). Observation Protocols and Artifact Packages for Evaluating Teacher Preparation Programs, presented at the biannual meeting of the American Association of Physics Teachers, January, 2012, Ontario, CA.

Otero, V. (2012, May). PhysTEC and UTeach at the University of Colorado, Boulder, Presented at the annual meeting for the National Mathematics and Science Initiative, May, 2012.

Otero, V. (2011, January). Taking Action: Physics Departments Can Contribute Significantly to National Problems, Presented at the bi-annual conference of the American Association of Physics Teachers, January 8-12, Jacksonville, Fl.

Otero, V. (2011, January). A Physics Department's Role in Preparing Physics Teachers: Learning Assistants, Presented at the bi-annual conference of the American Association of Physics Teachers, January 8-12, Jacksonville, Fl.

Otero, V. (2011, March). The Role of Physics in the Core Curriculum, Presented at the National Research Council's Committee on Undergraduate Physics Education Research and Implementation, Washington, D.C.

Otero, V. (2011, March). We're Not Gonna Take It: Changing Education, Presented for the Miramontes Arts and Sciences Program, Boulder, CO.

Otero, V. (2011, May). Transforming Your Courses Using LAs: Implementation and Impacts, *Presented at the annual conference of the Physics Teachers Education Coalition,* Austin, TX.

Otero, V. (2010, August). Transforming Astronomy Education, Presented at the Cosmos in the Classroom Conference, August 2-4, Boulder CO.

Otero, V. (2010, July). Physics Learning as the Objectification of Discourse, Presented at the bi-annual conference of the Am. Association of Physics Teachers, July 17-Juyly 21, 2010, Portland, OR.

Pollock. S. & Otero, V. (2010, July). Colorado Learning Assistant Model: Impacts and Outcomes, Presented at the bi-annual conference of the American Association of Physics Teachers, July 17-Juyly 21, 2010, Portland, OR.

Otero, V. (2010, March). Task Force on Teacher Education in Physics: Findings and Recommendations, Presented at the American Physical Society March Meeting, March 15, Portland, OR.

Otero, V. (2010, February). Reconceptualizing Undergraduate Education: LA Programs as Experiential Learning Models, presented at the biannual meeting of the American Association of Physics Teachers, February 16, Washington, D.C.

Otero, V. (2010, February). Reconceptualizing Undergraduate Education: LA Programs as Experiential Learning Models, Presented at the biannual meeting of the American Association of Physics Teachers, February 18, Washington, D.C.

Otero, V., ***Ananda, V., & Stachurski, S.*** (2010, February). Bringing it all together: NSF Funding to support the continuum for science teacher preparation. Keynote presented at the annual meeting of the Physics Teachers Education Coalition, February 11, Washington D.C.

Otero, V. & Pollock, S. (2010, February). Introduction to the Colorado Learning Assistant Program. Presented at the annual meeting of the Physics Teachers Education Coalition, February 12, Washington, D.C.

Otero, V. & Finkelstein, N. (2010, January). Experiential Learning Model for STEM Education, Faculty Development, and Teacher Preparation, Annual Meeting of the *The Leadership Council* of the Science and Mathematics Teacher Imperative, Association of Public and Land Grant Universities, January 6-8, Miami, FL.

Otero, V. (2009, December). Stop shining the old pot: New models of institutional change. Race to the Top, STEM, hosted by the National Governors Association, December, 2010.

Otero, V. (2009, October). The Colorado LA Program: A model education program of tomorrow. Presented at Seattle Pacific University, October 2009.

Otero, V. (2009, October). Educating Scientists to Become Civil Rights Activists. Presented at the meeting of the Hispanic Association of Colleges and Universities, October 23, Denver, CO.

Otero, V. (2009, October). What does it mean to learn physics? Presented at American Physical Society Four Corners Meeting, October 23, Colorado School of Mines, Golden, CO.

Otero, V. (2009, July). Measuring Teacher Quality with the FASCI Instrument. Presented at the biannual meeting of the American Association of Physics Teachers, July 29, Ann Arbor, MI.

Otero, V. (2009, May). Introduction to The Colorado Learning Assistant Program, presented at the annual conference of the Science and Mathematics Teacher Imperative of the Association of

Public and Land Grant Universities, May 18, Boulder, CO.

Otero, V. (2009, May). Colorado Learning Assistant Model for Recruiting and Preparing STEM Teachers. Presented at the UTeach Institute annual meeting, May 28, Austin, TX.

Otero, V. (2009, April). Computer Simulators as a Tool for Helping Elementary Teachers Appropriate Norms and Practices of Model Building in Science. Presented at the annual meeting of the American Education Research Association, April 17, 2009, San Diego, CA.

Otero, V. (2009, April). Building the Base for a Focus on Learning: The critical role of undergraduate science experiences in science teacher preparation, Symposium on Translating Research into Practice. Presented at the annual meeting of the American Education Research Association, April 16, 2009, San Diego, CA.

Otero, V. & S. Pollock (2009, March). Running a weekly planning session for Learning Assistants: A workshop for physics faculty. Presented at the annual conference of the Physics Teachers Education Coalition, Philadelphia, PA, March 2009.

Otero, V. & N. Finkelstein (2009, March). Transforming your undergraduate physics course using Learning Assistants. Presented at the annual conference of the Physics Teachers Education Coalition, Philadelphia, PA, March 2009.

Otero, V. (2009, Feb.) Design Principles for an Effective Laboratory Environment. Presented at the biannual meeting of the American Association of Physics Teachers, February 14, Chicago, IL.

Otero, V. (July, 2008). Transforming Identities: From Physics Major to Physics Teacher; from Elementary Teacher to Elementary Physics Teacher, Presented at the bi-annual meeting of the American Association of Physics Teachers, July 19-23, Edmonton, Alberta, Canada.

Otero, V. (March, 2008). Crisis in Physics Education: When local solutions hit the national scene. Physics Department Colloquium, University of Colorado, Boulder.

Otero, V. (2007, August). *The Road Less Traveled: The STEM Colorado Learning Assistant Program.* Presented at the bi-annual meeting for the American Association of Physics Teachers, Greensboro, N.C.

Otero, V., & STEM Colorado/PhysTEC Team. (2006, November). *Who is responsible for recruiting and preparing science teachers?* Paper presented at the Northwest regional meeting of the American Association of Physics Teachers, Seattle, WA.

Otero, V. (2006, October). The Colorado Learning Assistant model: A multidisciplinary approach to teacher recruitment and preparation. Paper presented at the annual meeting of the National Academy of Education, Boulder, CO.

Otero, V., Jalovec, S., & Her Many Horses, Ian. (2006, July). *SWOSing and theoretical perspectives that can explain it.* Paper presented at the biannual meeting of the American Association of Physics Teachers, Syracuse, NY.

Otero, V., & STEM Colorado/PhysTEC Team (2006, March). *The Colorado Learning Assistant model: A multidisciplinary approach to teacher recruitment and preparation*. Paper presented at the annual meeting of the American Physical Society, Dallas, TX.

Otero, V. (2005, August). *Evolution of theoretical perspectives in PER and the types of research we can (or can't) do*. Paper presented at the First Foundations and Frontiers of Physics Education Conference, Bar Harbor, ME.

Otero, V. (2005, August). *Repositioning ourselves from "knowers" to "learners": Formative assessment, Vygotsky, and teacher development.* Paper presented at the annual Physics Education Research Conference, Salt Lake City, UT.

Otero, V., & STEM Colorado Team (2005, March). *Coupling teacher recruitment and preparation with undergraduate course transformation.* Paper presented at the annual meeting of the Physics Teaching Coalition, Muncie, IN.

Otero, V. (2005, February). *Recruiting talented math and science majors to careers in teaching: A collaborative effort for K-20 educational reform.* Paper presented at the annual meeting of the American Association for the Advancement of Science, Washington, DC.

Otero, V., Iona, S., & Pollock, S. (2004, August). *Shared responsibility for preparing teachers*. Paper presented at the biannual meeting of the American Association of Physics Teachers, Sacramento, CA.

Otero, V. (2004, January). *The role of education research in PER and teacher education*. Paper presented at the biannual meeting of the American Association of Physics Teachers, Miami, FL.

Otero, V. (2003, November). *Blurring the boundaries between physics departments and schools of education for teacher preparation.* Paper presented at the Joint Fall Meeting of the AAPT AOK & Nebraska AAPT Sections and Big 12 Physics Education Research Conference, Kansas State University, Manhattan.

Otero, V., Cobanoglu, D., & Harlow, D. (2003, January). *The subtle role of tacit theory in physics educational research.* Paper presented at the biannual conference of The American Association of Physics Teachers, Austin, TX.

Otero, V. (2001, July). *Combining group behaviors with out-of-class interviews*. Paper presented at the annual meeting of the American Association of Physics Teachers, Rochester, NY.

Otero, V. (2001, March). *The changing role of the computer simulator in students' construction of explanatory models*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Otero, V. (2001, February). *The process of learning about static electricity and the role of the computer simulator,* Paper presented at the annual meeting of the Denver Area Physics Teachers, Denver, CO.

Popular Press

Otero, V. (2022). Courage to Learn: The unexpected physicist, CU Boulder School of Education Ed Talk, April 14, 2022 online.

Otero, V. (2010). Struggling with the College Equation, *Coloradan, University of Colorado, Boulder.*

Otero, V., **Ross, M., & Sherman, S.** (2010). A Synergistic Model of Educational Change, *American Physical Society Forum on Education Newsletter, Fall 2010*.

Finkelstein, N., Otero, V., & Pollock, S. (2006). Teaching to learn: The Colorado Learning Assistant program's impact on learning content. *American Physical Society Forum on Education Newsletter, Fall 2006/Spring 2007,* 11-13.

Otero, V. (2006). The Learning Assistant model for teacher preparation in science and technology. *American Physical Society Forum on Education Newsletter, Summer 2006,* 31-35.

Curriculum Materials

Belleau, S., ***Quinty, E.,*** & Otero, V. (2018, copyright). *Physics through Evidence, Empowerment through Reasoning Suite.*

Goldberg, F., Robinson, S., Kruse, R., Thompson, N., & Otero, V. (2007). *Physical science and everyday thinking: Curriculum, software, and video case studies*. Armonk, NY: It's About Time.

Goldberg, F., Robinson, S., & Otero, V. (2006, 2008). *Physics and Everyday Thinking: Curriculum, software, and video case studies*. Armonk, NY: It's About Time.

Goldberg, F., Heller, P., Morse, R., Minstrell, J., Hickman, P., Hickman, J., McKinley, A., Faletti, J., Otero, V., Johnson, A., & McCullough, L. (2000). *Constructing physics understanding in a computer-supported collaborative learning environment—CPU software and activities,* Armonk, NY: The Learning Team.

Selected Conference Proceedings and Presentations

Otero, V. Quinty, E. (2022). Science Practices and Inclusion in Elementary School Science, Colorado Science Conference, Castle Rock, CO, November 5, 2022.

Lindsay, W.E., & Otero, V.K. (2020). The possibilities and limitations of infrastructuring

with a no-excuses charter network. *Proceedings of the 14th International Conference of the Learning Sciences* [Virtual Conference, June 19-24, 2020], edited by M. Gresalfi and I.S. Horn.

Otero, V. and ***Belleau, S.*** (2018, July). Transforming courses, Engaging Teachers, and Assessing Multiple Dimensions with the PEER Suite, presented at the meeting of the American Association of Physics Teachers Summer Meeting, July 27-August 1, Washington, D.C.

Belleau, S. and Otero, V. (2018, July). Three-Dimensional Assessment in High School Physics, presented at the meeting of the American Association of Physics Teachers Summer Meeting, July 27-August 1, Washington, D.C.

Van Dusen, B., **Ross, M**., & Otero, V. (2012, March). Changing Identities and Evolving Conceptions of Inquiry through Teacher-Driven Professional Development, paper presented at the annual meeting of the National Association of Research on Science Teaching, March 25-28, Indianapolis, Indiana.

Barr, S., **Ross, M.,** &Otero, V. (April, 2011). *Relating Classroom Artifacts to the Nature of Classroom Practice Using the Scoop Notebook*. Paper presented at the Annual Meeting of the American Education Research Association. New Orleans, LA.

Gray, K. Barr, S., & Otero, V. (April, 2011). *Influence of the Learning Assistant Experience on Teachers' Views of Assessment and Construction of Knowledge*. Paper presented at the Annual Meeting of the American Education Research Association. New Orleans, LA.

Gray, K. Webb, D., & Otero, V. (April, 2011). *The Influence of the Learning Assistant Experience on Teachers' Classroom Practice During the Induction Years*. Paper presented at the Annual Meeting of the American Education Research Association. New Orleans, LA.

Her Many Horses, I., Lee, M., & Otero, V. (April, 2011). *The Relationship Between School Context and Novice Teachers' Views of Students*. Paper presented at the Annual Meeting of the American Education Research Association. New Orleans, LA.

PROFESSIONAL ACTIVITIES

National Boards and Committees

2023-present	Advisory Board, NSF IUSE Institutional and Community Transformation Level II: Upholding Active Learning Reform in STEM, University of Arkansas.
2019-present	Advisory Board, SEISMIC, 2019-present SEISMIC Advisory Board: a network of 10 universities focused on improving diversity, equity and access at the college level
2019-present	Advisory Board, NSF-HSI, Chico State, Texas State San Marcos, Project LASER—focused on improving college outcomes for students in Hispanic Serving Institutions
2019-present	Advisory Board, NSF-HSI, Adams State University, Project EMPOWER: Focused on improving outcomes for students in STEM at Adams State, a Hispanic Serving Institution
2018-present	National Advisory Board, American Physical Society PhysTEC: Focused on increasing the number and diversity of physics teachers nation-wide
2017-2022	Editorial Board, Physical Review—Physics Education Research
2016-2019	Advisory Board, ACCESS Network, NSF Grant—focused on more inclusive, accessible, and equitable university environments for undergraduate and graduate students
2017-2019	Advisory Board, University of California, Berkeley PLANS—focused on NGSS-style curriculum
2013-2018	Advisory Board, Florida International University, Project INSPIRE—Focused on creating communities and supporting students in a minority serving institution
2013-2018	Advisory Board, NSF funded Assessing, Validating, and Developing Content Knowledge for Teaching Energy, Collaborative Grant: Rutgers University, Seattle Pacific University, University of Maine, and FACET Innovations.
2012-2014	Advisory Board: NSF funded: Investigating Instructional Influences on the Productivity of Clicker Discussions, University of Colorado, Boulder

2010-2012 Advisory Board for IDEA Institute, University of Michigan

2012-2015 Editorial Board, *Effective Practices in Preservice Physics Teacher Education: Recruitment, Retention, and Preparation*, E. Brewe & C. Sandifer (Eds.), American Physical Society and American Association of Physics Teachers (Peer-reviewed book to be published in 2015).

2011-2013 National Research Council Committee on Undergraduate Physics Education and Undergraduate Physics Education Research, The National Academies Division of Engineering and Physical Sciences, Board of Physics and Astronomy (Report to be published 2013).

2008-2013 National Task Force for Teachers Education in Physics, American Physical Society, the American Institute of Physics, and the American Association of Physics Teachers, NRC (2013) report.

2010-2015 Associate Editor for Journal of Research in Science Teaching

2007-2011 Editorial Board, *Teacher Education in Physics: Research, Curriculum, and Practice,* D. Meltzer and P. Shaffer (Eds.), American Physical Society and American Association of Physics Teachers*,* (2011).

2009-2012 The Leadership Team—Association of Public and Land Grant Universities, with Interim Provost Stein Sture, Provost Russ Moore, Chancellor Phil DiStefano.

2009, Dec. Resource Expert, Race to the Top STEM event sponsored by the National Governors Association to help over 30 states prepare their proposals.

2011-2014 Editorial Board, American Journal of Physics

2010 NASA Education Forum Consultant, Cape Canaveral FL.—Advised NASA on Educational issues and programs focused on students from underserved communities

2008-2010 Advisory board for NSF-funded Learning Progressions in Physical Science Project, San Diego State University and University of Maryland

2009-2010 Advisory board for the Mathematics Learning Assistant Implementation at Florida International University, Miami, FL.

2006-2008 Advisory Board Member for NSF-funded grant for Graduate TA Training at the University of Maryland.

2006-2014 Advisory Board for the Physics Teachers Education Coalition

2001-2014 Advisor, Denver Area Mathematics, Engineering, & Science Achievement Program

2006-2010 Committee on Research In Physics Education, Amer. Association of Physics Teachers

2006-2010 Physics Education Research Leadership Organizing Council-Secretary

Campus Professional Activity

2023-present BFA Budget Committee

2022-present Large Enrollment Initiative, headed by the Center for Teaching and Learning

2021-present Buff Undergraduate Success Leadership Implementation Committee, Member

2020-present Provost's Grievance Committee under Faculty Affairs

2013-present Chair, McCray Scholarship Program

2010-present Executive Director, Colorado Learning Assistant Program

2017-present Fellow, Institute of Cognitive Science

2013-2022 Co-director, Center for STEM Learning

2021-2022 Provost's Campus Assessment Steering Committee

2020-2021 Campus Master Plan Committee

2019-2020 Boulder Campus Academic Futures Interdisciplinary Task Force

2020 (Summer) School of Education Summer Working Group A: Reimagining the University

2020 (Spring) Instructional Scenario Planning Team

2016-2020	Space Minor Steering Committee
2018-2019	Vice Chancellor's Advisory Council (Tenure and Promotion Committee at CU)
2017-2019	Foundations of Excellence, Learning Dimension Chair
2017-2019	Foundations of Excellence, Steering Committee
2014-2016	Grand Challenge Steering Committee
2014-2018	Leadership Minor Steering Committee
2006-2016	Co-Director CU Teach
2014-2015	Campus committee on the Transformation of Classroom Space
2010, August	Chancellor's Convocation-Speaker
2010, June	Presentation to the Regents: STEM Education at Colorado
2010, May	Chancellor's Serving Colorado Tour, Faculty Representative
2009-2010	Co-Director Integrating STEM project, Boulder, CO.
2004-present	Member, Chicano Faculty and Staff Association, University of Colorado at Boulder

Memberships Professional Societies

2001-present	American Association of Physics Teachers
	American Association of the Advancement of Science
	American Physical Society
	Physics Teacher's Education Coalition
2001-2015	American Education Research Association
	National Association for Research in Science Teaching

Ad-Hoc Reviewer:

- Journal of Higher Education
- *Journal of the Learning Sciences*
- *American Educational Research Journal*
- *Journal of Teacher Education*
- *Physics Review—Physics Education Research*
- *American Journal of Physics*
- *Review of Educational Research*
- *Journal of Research in Science Teaching*
- *Physics Education Research Conference Proceedings*

AWARDS AND RECOGNITION

2023	Svend Pedersen Award for Excellence in STEM Education, University of Stockholm
2021	American Physical Society Fellow
2021	CU Boulder Faculty Mentor Award for Graduate Students
2019	American Physical Society Excellence in Education Award
2015	President's Teaching Scholar, University of Colorado System
2013	Boulder Faculty Assembly Award for Research Excellence
2013	Woman Physicist Award, American Physical Society, April, 2013
2009	Provost's Award for Academic Achievement, CU Boulder
2007	Featured in Inside CU: In the Spotlight - CU Boulder program working to draw more science majors into teaching (October, 9, 2007), http://www.colorado.edu/insidecu/editions/2007/10-09/story1.html
2007	Best Should Teach Award, awarded CU Boulder, 2007

2006 Emerging Pioneer Award, awarded by the Boulder Natural History Museum
2006 Featured in the 2006 CU Boulder "Just the Facts." Office of News Services Publication
2004 Featured in "Sponsored Research: Highlighting some of CU's Outstanding Women Scholars." Published by CU Boulder's Office of Contracts and Grants, http://www.colorado.edu/ocg/reports/2003-04/teacher.html

REFEREED CONFERENCE PRESENTATIONS

Van Dusen, B., Ross, M., & Otero, V. (2012, March). Changing Identities and Evolving Conceptions of Inquiry through Teacher-Driven Professional Development, paper presented at the annual meeting of the National Association of Research on Science Teaching, March 25-28, Indianapolis, Indiana.

Otero, V., Webb, D., Talbot, R., Moin, L., Gray, K., Finkelstein, N. (2009, April). A longitudinal study of pedagogical content knowledge: content, pedagogy, and practice. Presented at the annual meeting of the National Association of Research on Science Teaching, April 19, Garden Grove, CA.

Talbot, R. & Otero, V. (2009, April). Learning Progression to Describe Teacher Development, Presented at the annual meeting of the American Education Research Association, April 14, San Diego, CA.

Otero, V., Jalovec, S., Hermanyhorses, I. (2008). Evolution of Students Model Building Practices. Presented at the annual meeting of the National Association of Research in Science Teaching, Baltimore, MD, April 2008.

Demir, A., Czerniak, C., Abd-El-Khalick, F., Moin, L., & Otero, V. (2008). Recruitment of science and mathematics teachers: National and International Perspectives and Issues on Policies. Evolution of Students Model Builiding Practices. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Baltimore, MD, April 2008.

Otero, V. (2006, April). *Recruiting talented mathematics and science majors to careers in teaching: A collaborative effort for K-16 educational reform*. Paper presented at the National Association for Research in Science Teaching, San Francisco, CA

Geil, K., Briggs, D., Harlow, D., & Otero, V. (2006, April). *Measuring sophistication of beliefs about teaching and learning*. Paper presented at the annual meeting of the American Education Research Association, San Francisco, CA.

Otero, V. (2005, April). *"After I gave students their prior knowledge..." Pre-service elementary teachers' conceptions of students' prior knowledge.* Paper presented at the annual meeting of the National Association of Research on Science Teaching, Dallas, TX.

Otero, V. (2005, April)**.** *When cognitive meets socio-cultural theory: Evolution of conceptual models leads to evolution of the learning environment and vice versa*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Otero, V., & Harlow, D. (2005, April). *Classroom contexts and curricula for helping teachers develop identities as "science people."* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

Otero, V., & Nathan, M. (2003, April). *Elementary pre-service teachers' initial and changing views about students' prior knowledge and collaborative learning*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Otero, V. (2001, March). *The role of computer simulators in students' construction of explanatory models of static electricity.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

Monaghan, J. M., Otero, V., Goldberg, F., & Johnson, A. (2000, April). *An analysis of the Constructing Physics Understanding (CPU) science teaching methodology from multiple perspectives*. Paper presented at the annual meeting of the American Educational Research Assoc., New Orleans, LA.

WORKSHOPS

Otero, V. and Belleau, S. (2015, February). Physics and Everyday Thinking-High School: Teacher Professional Development and College Preparation, Presented at the American Physical Society's PhysTEC annual conference, Seattle, WA.

Otero, V. and Langdon, L. (2015, February). Scaling and Sustaining your LA Program through Faculty Development Workshops, Presented at the American Physical Society's PhysTEC annual conference, Seattle, WA.

Otero, V., Langdon, L., and Belleau, S. (2015, February). Teacher Research Teams for Recruitment, Preparation, Induction, and Professional Development, Presented at the American Physical Society's PhysTEC annual conference, Seattle, WA.

Otero, V. (2013, September). Inductive reasoning contexts for generating principles about effective teaching practice and about the natural world, Workshop at the *International Realistic Mathematics Conference,* Boulder, CO, Sept. 27-29-*Invited.*

Otero, V., Langdon, L. & Regional Workshop Team Leaders group (2013, October). Fifth Annual International National Learning Assistant Workshop, Boulder, CO, Oct. 27-29, 2013.

Otero, V., Belleau, S., Ross, M. (2013). Physics and Everyday Thinking Curriclum and Professional Development for Building Inclusive Classroom Environments, presented at the Nationals Science Teacher's Association, Denver, CO., December, 2013.

Otero, V. & Langdon, L. & STEM Colorado Group (2012, October). Fourth Annual National Learning Assistant Workshop, Boulder, CO, Oct. 28-30, 2012.

Otero, V. (2011, January). Moving Education Outside the Classroom: 21st Century Model for Science Education and Teacher Preparation, *The First Annual Conference on Teaching and Learning in Higher Education as a Tool for Progress,* January 13-18, 2011, Ryiadh, Saudi Arabia.-*Invited*

Otero, V. (2011, April). Transforming Your Courses Using LAs: Implementation and Impacts, *Annual meeting of the Mathematics Association of America, Boulder. CO. -Invited*

Otero, V. and the STEM Colorado Group (2011, November 3-4). Third annual: Colorado Learning Assistant Program, Nuts n' Bolts, Theory, and Rolling it Out at Your University, Supported (and requested) by American Physical Society University of Colorado, Boulder, October 13-14-*Invited*

Otero, V. & Pollock, S. (2011, February). Nuts n' Bolts of Transforming Your Course to Increase Student Engagement, *Scientia,* Rice University, February 11-12, 2011, Houston, TX. -*Invited*

Otero, V. & Pollock, S. (2011, May). Introduction to the Colorado Learning Assistant Program, Physics Teachers Education Coalition, May 23-24, Austin, TX. -*Invited*

Otero, V. and the STEM Colorado Group (2010, October). Second Annual Colorado Learning Assistant Program, Nuts n' Bolts, Theory, and Rolling it Out at Your University, Supported (and requested) by American Physical Society University of Colorado, Boulder, October 13-14. -*Invited*

Otero, V. & Finkelstein, N. (2010, June). Introduction to the Colorado Learning Assistant Program, presented at the annual meeting of the Association of Public and Land Grant Universities, Science and Mathematics Teacher Imperative, Cincinnati, OH, June 9-11, 2010. -*Invited*

Otero, V. (2010, March). Evaluating a Teaching as Research Project, Graduate Teachers Program, University of Colorado, Boulder, March 15, 2010. -*Invited*

Otero, V. & Pollock, S. (2010, February). Implementing the Colorado Learning Assistant Program at Other Universities. Presented at the annual meeting of the Physics Teachers Education Coalition, February 12, Washington, D.C. -*Invited*

Goldberg, F., Otero, V., & Robinson, S. (2010, February). Following Students' Learning in the PET, PSET, and LEPS Courses for Perspective Teachers, Presented at the biannual conference of the American Association of Physics Teachers, February, 14, 2010, Washington, D.C.

Otero, V. (2009, July). Qualitative Physics Education Research: Data, Analysis, and Relevance, Presented at annual meeting of Am. Association of Physics Teachers, Ann Arbor, MI. -*Invited*

Goldberg, F., Otero, V., Robinson, S. (2009, Feb & July). Physics and Everyday Thinking & Physical Science and Everyday Thinking, Presented at the biannual meetings of the American Association of Physics Teachers.

Otero, V., Pollock, S., & Finkelstein, P. (2008, February). *Strategies for implementing specific activities in a pedagogy course for LAs*. Workshop presented at the National meeting of the Physics Teachers Education Coalition, Austin, TX. -*Invited*

Otero, V., Pollock, S., Iona, S., Finkelstein, N., & Klymkowsky, M. (2008, October). Workshop conducted for the national Physics Teachers Education Coalition (PTEC) and funded by the American Physical Society, held at University of Colorado, Boulder. -*Invited*

Talbot, R., & Briggs, D. (2008, February). *The Flexible Application of Student Centered Instruction instrument*. Workshop presented at the National meeting of the Physics Teachers Education Coalition, Austin, TX.

Otero, V., Pollock, S., Iona, S., Finkelstein, N., & Klymkowsky, M. (2007, October). *Up close and personal with the University of Colorado Learning Assistant program*. Workshop conducted for the national Physics Teachers Education Coalition (PTEC) and funded by the American Physical Society, held at University of Colorado, Boulder. -*Invited*

Otero, V., Pollock, S., Finkelstein, N., & Klymkowsky, M. (2007, August). Workshop conducted for faculty new to using learning assistants, University of Colorado, Boulder.

Otero, V., Pollock, S., Iona, S., & Finkelstein, N. (2007, July). *The Learning Assistant model at your university.* Workshop conducted at the biannual meeting of the American Association of Physics Teachers, University of North Carolina, Greensboro. -*Invited*

Otero, V., & Iona, S. (2007, March). *Nuts and bolts of designing a pedagogy course for Learning Assistants*. Workshop conducted at the annual meeting of the Physics Teacher Education Coalition, Boulder, CO. -*Invited*

Otero, V., & Pollock, S. (2007, March). *The University of Colorado Learning Assistant model*. Workshop conducted at the annual meeting of the Physics Teacher Education Coalition, Boulder, CO. -*Invited*

Otero, V., & Goldberg, F, & Robinson, S. (2002-2007). *Physics and Everyday Thinking [PET] and Physical Science and Everyday Thinking [PSET]: A workshop for physics faculty.* Workshops conducted twice annually from 2002-2007, Boulder, CO.

Otero, V. (2003-2006, August). *STEM Colorado workshop for K-12 teachers, Noyce Fellows, and university faculty*. Workshops held annually at the University of Colorado, Boulder.

Otero, V., Stewart, G., & Vokos, S. (2006, March). *Undergraduate learning assistants: A powerful way to improve student learning and recruit future teachers.* Workshop conducted at the annual meeting of the Physics Teacher Education Coalition*,* Fayetteville, AR. -*Invited*

Otero, V., & Poel, R. (2005, March). *What is inquiry? How do we measure it?* Workshop conducted at the annual meeting of the Physics Teachers Education Coalition, Muncie, IN. -*Invited*

Otero, V., & Cobanoglu, D. (2002, July). *How do we know what students are thinking? Theory and methods in video data analysis*. Workshop presented at the summer meeting of the American Association of Physics Teachers, Boise, ID. -*Invited*

Otero, V., Hammer, D., & May, D. (2001, July). *How do we know what students are thinking? Theory and methods in video data analysis.* Workshop presented at the summer meeting of the American Association of Physics Teachers, Rochester, NY. -*Invited*

K-12 OUTREACH AND COLLABORATIONS

Seattle Public Schools, Research Practice Partnership (2017-present)

Denver School of Science and Technology, Research Practice Partnership (2016-present)

Streamline to Mastery and Teacher Research Teams, Executive Director (2009-present)

Centro Latino Americano Para Las Artes, Ciencia Y Educatión (CLACE) (2010-2013)

Vamos Buffalos (April, June, 2010). *Recruitment and College Information for High School.*

I Have A Dream (June 2010). *Recruitment and Empowerment of K-12 Local Students*

Home to Colorado (January, 2010). *Recruitment of Alumni to Graduate School*

Streamline to Mastery Professional Development Program (2009-present): Professional Development Community, Mapleton Expeditionary School of The Arts, Mapleton School District, Denver, CO.

Mathematics, Engineering, and Science Achievement (MESA) (2007-2008): Program Evaluation with graduate student Robert (Bud) Talbot and Michael Ross.

Magnetism and Electricity for Elementary Teachers (2006): 15-week professional development workshop for third- and fourth-grade teachers, St. Vrain Valley School District, Longmont, CO.

Guest speaker at the Achievement Via Individual Determination (AVID) program (2004-2005). Casey Middle School, Boulder, CO.

Young Environmental Stewards Program Evaluation (2003-2004). Program Evaluation with graduate student Eric Snow, Catamount Institute, Colorado Springs, CO.

Mathematics, Engineering, and Science Achievement (MESA) (2002-2003): Constructing Physics Understanding for Second- and Third-Grade Females and Minorities, Columbine Elementary School, St. Vrain Valley School District, Longmont, CO.

Mathematics, Engineering, and Science Achievement (MESA) Program Advisor (2002-present): St. Vrain Valley School District, Longmont, CO.

Science Fair Judge (2002-present): Boulder Valley School District.

Constructing Physics Understanding for Elementary Teachers (2002). Physics for Elementary Teachers, on-site professional development. University of Colorado at Boulder, St. Vrain Valley School District, Longmont, CO.

PH.D. ADVISEES (2023)

Julian Martins, Student, University of Colorado Boulder
Mel Lopez, Student, University of Colorado Boulder
Ramadhan Hamisi, Student, University of Colorado Boulder
Laura (Catalina) Arboleda Hernandez, Student University of Colorado Boulder
Taylor Fallik, Student, University of Colorado Boulder

Post-Doctoral Scholars and Mentees

Jennifer Avena, Department of Biology, University of Northern Colorado
Betsy McIntosh, School of Education, University of Colorado Boulder
Laurie Langdon, School of Education, University of Colorado Boulder
Jessica Alzen, School of Education, University of Colorado Boulder
Laura Rios, Department of Physics, University of Colorado Boulder
Ian Her Many Horses, School of Education, University of Colorado Boulder
Jayson Nisson, Chico State University

Former Students:

Lindsay, William, Teaching Professor and Co-Director of CU Teach, CU Boulder (Graduated 2020)
Top, Laken, Instructor, Front Range Community College (Graduated 2019)
Suarez, Enrique, Assistant Professor, University of Nebraska, Amherst (Graduated 2017)
HerManyHorses, Ian, Teaching Professor and Co-Director of CU Teach, CU Boulder (Graduated 2016)

Van Dusen, Ben, Assistant Professor, Iowa State University (Graduated 2014)
Ross, Mike, Teacher, Centaurus High School, Colorado (Graduated 2013)
Gray, Kara, Professor, Dept. of Physics, Seattle Pacific University (Graduated 2013)
Talbot, Robert (Bud), AssociateProfessor, Education, University Colorado, Denver (Graduated 2011)
Harlow, Danielle, Professor and Ass. Dean, Univ. of California, Santa Barbara (Graduated, May 2007)
Cobanoglu, Derya, Professor of Science Education and Physics, Turkey (Graduated, December 2006)
Pascarella, Andrea, Educational Technology Product Leader at Amazon (Graduated, May 2004)