Deanna M. Arble
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## Education and Training

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|---|---|
| May, 2005 | B. A. in Neuroscience, University of Virginia, Charlottesville, VA |
| July, 2011 | Ph.D. in Neuroscience, Northwestern University, Evanston, IL<br>Concentration: Sleep & Circadian Rhythms<br>Dissertation: Circadian Timing of Caloric Intake Contributes to Obesity |
| Sept, 2011-<br>Sept, 2014 | Post-Doctoral Research Fellow<br>Metabolic Diseases Institute<br>University of Cincinnati<br>*Gut-brain control of obesity and glucose metabolism* |
| Sept, 2014-<br>Nov, 2016 | Post-Doctoral Research Fellow<br>Department of Surgery<br>University of Michigan<br>*Neuronal mechanisms underlying obesity, sleep apnea, and circadian disruption*. |

## Academic and Administrative Appointments

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|---|---|
| Nov, 2016-<br>Aug, 2017 | Assistant Research Scientist<br>Department of Surgery<br>University of Michigan |
| Aug, 2017-<br>present | Assistant Professor<br>Department of Biological Sciences<br>Marquette University |
| Sept, 2017-<br>present | Assistant Adjunct Professor<br>Clinical and Translational Science Institute<br>Medical College of Wisconsin |

## Certification

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|---|---|
| 2010 | Northwestern University's Searle Center for Teaching Excellence, Teaching Certificate |

## Research Interests

1. Circadian biology
2. Body weight homeostasis / obesity
3. Neural control of breathing

## Honors and Awards

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|---|---|
| 2021 | Way-Klingler Early Career Award |
| 2019 | PEW Biomedical Scholar, Institutional Nominee |
| 2015 | Sleep Research Society Early Stage Career Stage Investigator Travel and Mentorship Award |
| 2014 | Society for Research of Biological Rhythms Travel Merit Award |
| 2010 | Society for Research of Biological Rhythms Travel Merit Award |
| 2007 | Society for Neuroscience Travel Award |

## Grants

*a) Active Grants*

08/2023 – 07/2026
Agency: NIH-NHLBI, R15 HL170276-01 (PI, Arble)
"Cultivating novel treatments for obesity-related respiratory disease by uncovering neuronal etiology"

07/2023 – 07/2025
Agency: Craig H. Neilsen Foundation (Co-I, Arble)
"Phrenic afferents and diaphragm pacing-induced recovery of breathing following spinal cord injury"

07/2022 – 06/2024
Agency: Marquette University, Mellon Grant (PI, Arble)
"Creative Problem Solving: a new course designed to promote STEM education and discovery"

*b) Past Grants*

01/2021 – 12/2022
Agency: American Heart Association, Innovative Project Award 20IPA35320195 (PI, Arble)
"Targeting the brain as an effective treatment for sleep apnea."

08/2017 – 12/2022
Agency: American Heart Association, Scientific Development Grant 17SDG33660108 (PI, Arble)
"The role of neuronal leptin in the pathogenesis, and treatment, of sleep apnea and cardiometabolic disease"

07/2020– 07/2021
Agency: Marquette University Research and Faculty Grant (PI, Arble)

09/2012 – 09/2014
Agency: NIH/NIDDK F32 DK097867 (PI, Arble)
"Circadian disruption and bariatric surgery: impact on metabolism, clock biology"

07/2010 – 07/2011
Agency: NIH/NIA F31 AG035621 (PI, Arble)
"Aging and meal timing interact to exaggerate weight gain"

*c) Pending Review*

01/2024 NSF, IOS Core, "Breathing around the clock: determining how light modulates respiratory behavior to inform an increasingly light-polluted world"

10/2023 NIH-NHLBI, R01, "Enlightening respiratory therapeutics by uncovering the neuronal connections between environmental light and breathing"

## Mentoring & Teaching

| *Table of Mentored Students (since being a tenure-track Assistant Professor)* | | | |
|---|---|---|---|
| **Undergraduate Students (those mentored for ≥ 2 semesters)** | | | |
| Name | Years Supervised | Relationship | Current Position |
| Ellen Bakke | 2018-2019 | PI | PhD Graduate student, Northwestern University |
| Hannah Peterson | 2018-2020 | PI | Master of Science in Anesthesia at Medical College of Wisconsin |
| Nakia Chappelle | 2018-2021 | PI | Medical Student, Baptist Health Sciences Medical School |
| Eric Fellin | 2018-2019 | PI | Medical Student, Oregon Health & Science University |
| Kat Propsom | 2018-2021 | PI | PhD Graduate student, University of Cincinnati |
| Ellie Marino | 2019-2021 | PI | PhD Graduate student, Marquette University |
| Lauren Nelson | 2019-2021 | PI | Medical Student, Noorda College of Osteopathic Medicine |
| Matt Muldoon | 2019-2020 | PI | PhD Graduate student. Rosalind Franklin University |
| Allison Spears | 2021-2023 | PI | PA Student, Marquette University |
| Dhruvaa Shroff | 2021-2023 | PI | MBA student, Marquette University |
| Dylan Kupiec | 2021 - present | PI | Undergraduate student, Marquette University |
| Ellie Thorstenson | 2023 - present | PI | Undergraduate student, Marquette University |
| Annie Serdar | 2023 - present | PI | Undergraduate student, Marquette University |
| Noelia Orozco | 2023 - present | PI | Undergraduate student, Marquette University |
| **Graduate Students (rotating graduate students not listed)** | | | |
| Sarah Framnes-DeBoer | 2018-2022 | PI | Clinical Guidelines & Regulatory Project Manager, American Academy of Sleep Medicine |
| Aaron Jones | 2019-2023 | PI | Post-Doctoral Fellow, University of Florida |
| Ellie Marino | 2021-present | PI | Neuroscience PhD student, Marquette University |
| Athena Rivera | 2021-present | PI | Biology PhD student, Marquette University |

*Mentored Fellowships & Awards*
2023 Advances in Sleep/Circadian Award. (A. Rivera)
2023 Marquette University GAANN Fellowship Award (G.Marino)
2022 Marquette University Richard W. Jobling Distinguished Research Assistantship (A. Jones)
2022 Denis J O'Brien Summer Fellowship (A. Jones)
2021 Marquette University Deans Research Enhancement Award (A. Jones)

2021 Marquette University Fellowship (A. Jones)
2021 Marquette University Summer Fellowship (A. Jones)
2021 Dr. Catherine Grotelueschen Summer Scholarship (S. Framnes-DeBoer)
2020 Arthur J. Schmitt Leadership Fellowship (S. Framnes-DeBoer)
2019 GAANN Fellowship Award (S. Framnes-DeBoer)
2019 Catherine Welsh Smith Research Award (E. Bakke)
2019 National Science Foundation sponsored REU fellowship (M. Kang)
2019 National Science Foundation sponsored REU fellowship (N. Chappelle)
2019 Klinger College of Arts and Sciences Undergraduate Summer Research Fellowship (K. Propsom)

**Courses taught**

*Undergraduate level*

| | |
|---|---|
| 2023-present | Instructor: *BIOL4931 Creative Problem-Solving*. Marquette University |
| 2020-present | Instructor: *BIOL1510 Neuroscience for Non-Majors*. Marquette University |
| 2017-present | Instructor: *BIOL4702 Experimental Physiology*. Marquette University |
| 2010 | Instructor: *Crime Scene Investigations: From True Science to TV Shows*. Northwestern University |

*Graduate level*

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|---|---|
| 2022-present | Instructor: *BIOL8701 Advanced Physiology and Organ Systems*. Marquette University |
| 2019-present | Instructor: *BIOL8931 Current Topics in Physiology*. Marquette University |
| 2018-present | Co-Instructor: *NRSC8002 Neuroscience Foundations.* Marquette University |
| 2019 | Instructor: *BIOL8957 Circadian Control of Body Weight and Glucose Regulation*. Marquette University |

*Intramural lectures and other teaching activities*

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| 2018 | Guest lecturer: On the topic of “Sleep and Circadian Rhythms” for *BIOL101 Introduction to Biology*. Marquette University |
| 2017 | Marquette University’s Integrative Neuroscience Research Center lecture, “Using mouse models to uncover the brain's involvement in sleep apnea” |
| 2007 | Teaching assistant: *Learning & Memory*. Northwestern University |
| 2006 | Teaching assistant: *Animal Physiology*. Northwestern University |

## Committee, Organizational, and Volunteer Service

*Institutional Service*

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|---|---|
| 2023-present | Institutional Animal Care and Use Committee (IACUC), member |
| 2022-present | Committee Member, BioDiscovery Workgroup |
| 2022-present | Committee Member, Undergraduate Career Committee |
| 2022-present | Klingler College of Arts and Sciences, Advisor for Pre-Dental Scholars |
| 2021-present | Director, Department of Biological Sciences Disciplinary Honors |
| 2020-2022 | Committee Member, Committee on Research |
| 2019-present | Committee Member, Laboratory Instructor Committee |
| 2020-2021 | Committee Member, Undergraduate Committee |
| 2020 | Committee Member, Committee for Graduate Matching |
| 2018-2020 | Departmental Faculty Search Committee |
| 2013 | Organizing Committee Member of the “Cincinnati Diabetes and Obesity Center” 4th Annual Research Conference |
| 2006-2011 | Northwestern University Interdepartmental Neuroscience (NUIN) Program Recruitment Volunteer |

2009-2010 BioOpportunities Vice President and Treasurer
2008-2009 BioOpportunities Committee Planner
2009 Northwestern Community Building Grant Receipt for “BioOpportunities”
2007-2008 NUIN Student Advisory Committee Member

*National Service*

2022 Ad Hoc Reviewer, NIH. Behavioral Neuroendocrinology, Neuroimmunology, Rhythms and Sleep (BNRS) Study Section.
2021 Ad Hoc Reviewer, American Heart Association. Signaling 2 (Basic Science 9) Fellowship Peer Review Committee.
2020 Ad Hoc Reviewer, American Heart Association. Molecular Signaling 2 Fellowship Peer Review Committee.
2019 Workshop Co-Chair, “Hot Topics in Hypoxia” Experimental Biology Conference, Orlando, FL.
2018 Workshop Chair, “Managing a Successful Lab: Recruitment, Mentorship, and Conflict Resolution.” Society for Research on Biological Rhythms, Amelia Island, FL.
2017 Session Chair, “Antidiabetic Actions of Leptin in Insulin-Deficient Animal Models.” 77th Scientific Sessions of the American Diabetes Association, San Diego, CA.
2016 Workshop Chair, “Interview Skills & Preparing for the Transition from Postdoc to Independent Research.” Society for Research on Biological Rhythms, Palm Harbor, FL.

## Consulting Positions

2015 Circuit Therapeutics

## Extramural Seminars and Invited Presentations

2023 *Breathing around the clock.* NIH-NHLBI Workshop: Circadian Clocks at the Interface of Respiratory Health and Disease. Virtual.

2022 *Breathing around the clock: How light affects one of our most essential processes.* Invited presentation, Columbia University, New York, NY.

*Fat Brains & Disordered Breathing: How obesity affects our drive to breathe.* Invited presentation, California State University, San Bernardino, CA.

2020 *The role of circadian rhythms and obesity in the control of ventilatory drive*. Invited presentation, Medical College of Wisconsin. Milwaukee, WI.

2019 *Sleep, circadian rhythms, and obesity*. Invited presentation, Maximizing Access to Research Careers colloquium series, California State University. San Bernardino, CA.

2019 *Circadian disruption, sleep apnea, and metabolism: Insights from animal models*. Invited presentation, Ripon College. Ripon, WI.

2019 *A leptin-dependent mechanism links obesity to sleep disordered breathing*. Invited presentation, Center for Sleep and Circadian Biology, Northwestern University. Evanston, IL.

2016 *Circadian disruption, sleep apnea, and metabolism: Insights from animal models.* Symposium presentation, 76th Scientific Sessions of the American Diabetes Association, New Orleans, LA.

## Bibliography *(*denotes graduate student, **denotes undergraduate student)*

*Articles in preparation*

1. *Jones, A.A. and **Arble**, D.M. The circadian clock contributes to the daily rhythm of ventilation in mice independently of metabolic rate.

2. *Jones, A.A., **Spears, A.R., and **Arble**, D.M. Environmental light affects the daily organization of breathing by activating Brn3b-expressing intrinsically-photosensitive retinal ganglion cells in mice.

*Peer reviewed articles*

1. *Jones, A.A. and **Arble**, D.M. (2023) In light of breathing: environmental light is an important modulator of breathing with clinical implications. Front Neurosci. 17.

2. *Jones, A.A., *Marino G.M., **Spears, A.R., and **Arble**, D.M. (2023) The Molecular Circadian Clock of Phox2b-expressing Cells Drives Daily Variation of the Hypoxic but Not Hypercapnic Ventilatory Response in Mice. Function. 4(4):zqad023.

3. *Marino, G. and **Arble**, D.M. (2023) Peripheral clock disruption and metabolic disease: moving beyond the anatomy to a functional approach. Front Endocrinol. 14:1182506.

4. **Arble**, D.M., Hutch, C., Hafner, H., Stelmak, D., Leix, K., Sorrell, J., Pressler, J., Gregg, B., and Sandoval D.A. (2023) The role of preproglucagon peptides in regulating β-cell morphology and responses to metabolic stress. Am J Physiol Endocrinol Metab, 324(3):E217-E225.

5. Jones, A.A., *Framnes-DeBoer, *S.N., Shipp, A., and **Arble**, D.M. (2022) Caloric restriction prevents obesity- and intermittent hypoxia-induced cardiac remodeling in leptin-deficient *ob/ob* mice. Front. Physiol. PubMedID# 36160851

6. *Framnes-DeBoer, S.N., *Jones, A., **Kang, M., **Propsom, K., **Nelson, L., and **Arble**, D.M. (2021) The timing of intermittent hypoxia differentially affects macronutrient intake and energy substrate utilization in mice. Am J Physiol Endocrinol Metab. PubMedID# 34459217

7. *Jones, A.A., **Nelson, L., **Marino, G., **Chappelle, N., *Joye, D.A. and **Arble**, D.M. (2021) Photoperiodic manipulation reveals a light-driven component to daily patterns of ventilation in C57Bl/6J mice. Journal of Biological Rhythms. PubMedID# 33685258

8. *Framnes-DeBoer, S.N., **Bakke, E., **Yalamanchili, S., **Peterson, H., Sandoval, D.A., Seeley, R.J., and **Arble**, D.M. (2020) Bromocriptine improves glucose tolerance independent of circadian timing, prolactin, or the melanocortin-4 receptor. Am J Physiol Endocrinol Metab. PubMedID# 31794265

9. **Arble, D. M.,** Schwartz, A., Polotsky, V., Sandoval, D.A., Seeley, R.J. (2019) Vertical sleeve gastrectomy improves ventilatory drive through a leptin-dependent mechanism. JCI Insights. PubMedID# 30626748

10. **Arble**, D.M. Ever, S.S., Bozadjieva, N., Frikke Schmidt, N., Myronovych, A., Lewis, A., Toure, M.H., Seeley, R.J. (2018) Metabolic comparison of Mini Gastric Bypass, Single-Anastomosis Duodenal-Switch, Roux-en-Y Gastric Bypass, and Vertical Sleeve Gastrectomy in rat. Surgery for Obesity and Related Diseases. PubMedID# 30292648

11. Kim, T., Loyd, C., Holleman, C., **Arble**, D.M., Ottaway, N., Chabenne, J., Sandoval, D., Drucker, D.J., DiMarchi, R., Perez-Tilve, D., Habegger, K.M. (2018) Hepatic Glucagon-receptor Signaling Enhances Insulin-Stimulated Glucose Disposal in Rodents. Diabetes. PubMedID# 30150304

12. *Framnes, S.N. and **Arble**, D.M. (2018) The bidirectional relationship between obstructive sleep apnea and metabolic disease. Frontiers in Endocrinology. PubMedID# 30127766

13. Flak, J.N., **Arble**, D., Pan, W., Patterson, C., Lanigan, T., Goforth, P.B., Sacksner, J., Joosten, M., Morgan, D., Allison, M.B., Hayes, J., Feldman, E., Seeley, R.J., Olson, D.P., Rahmouni, K., Myers Jr., M.G. (2017) A leptin-regulated neuronal circuit controls glucose mobilization during noxious stimuli. J Clin Invest. PubMedID# 28714862

14. Sisley, R.S., **Arble**, D.M., Chambers, A.P., Gutierrez-Aguilar, R., He, Y., Xu, Y., Gardner, D., Moore, D.D., Seeley, R.J., Sandoval, D. (2016) Hypothalamic vitamin D improves glucose homeostasis and reduces weight. Diabetes. PubMedID# 27217488

15. **Arble**, D. M., Pressler, J.W., Sorrell, J., Wevrick, R., and Sandoval, D.A. (2016) Sleeve gastrectomy leads to weight loss in Magel2 knockout mouse. Surgery for Obesity and Related Diseases. PubMedID# 27396546

16. **Arble**, D. M., Sandoval, D.A., Turek, F.W., Woods, S.C, and Seeley, R.J. (2015) Metabolic effects of bariatric surgery in mouse models of circadian disruption. Int J Obes (Lond). PubMedID# 25869599

17. **Arble**, D. M., Holland, J., Raver, C., Sorrell, J., Pressler, J.W., Woods, S.C, Seeley, R.J., Sandoval, D.A., and Perez-Tilve, D. (2015) The melanocortin-4 receptor integrates circadian light cues and metabolism. Endocrinology. PubMedID#25730108

18. **Arble**, D. M., Sandoval, D.A., and Seeley, R.J. (2014) Mechanisms underlying weight loss and metabolic improvements in rodent models of bariatric surgery. Diabetologia. PubMedID# 25374275

19. **Arble**, D. M. and Sandoval D.A. (2013) CNS control of glucose metabolism: response to environmental challenges. Front Neurosci. PubMedID# 23550218

20. **Arble**, D. M., Vitaterna, M. H. and Turek, F. W. (2011) Rhythmic leptin is required for feeding time dependent weight gain in the mouse. PLoS One 6(9),e25079. PubMedID# 21949859

21. **Arble**, D. M., Bass, J., Laposky, A. D., Vitaterna, M. H. and Turek, F. W. (2009) Circadian timing of food intake contributes to weight gain. Obesity (Silver Spring) 17(11), 2100-2102. PubMedID#19730426

22. Preuss, F., Tang, Y., Laposky, A. D., **Arble**, D., Keshavarzian, A. and Turek, F. W. (2008) Adverse effects of chronic circadian desynchronization in animals in a "challenging" environment. Am J Physiol Regul Integr Comp Physiol 295(6), R2034-2040. PubMedID#18843092

23. Davidson, A. J., Yamazaki, S., **Arble**, D. M., Menaker, M. and Block, G. D. (2008) Resetting of central and peripheral circadian oscillators in aged rats. Neurobiol Aging 29(3), 471-477. PubMedID#17129640

*Invited Publications*

24. **Arble**, D.M., Bass, J., Diniz Behn, C., Butler, M.P., Challet, E., Czeisler, C., Depner, C.M., Elmquist, J., Franken, P., Grandner, M.G., Keene, A.C., Joyner, M.J., Karatsoreos, I., Kern, P.A., Klein, S., Morris, C.J., Pack, A.I., Satchidananda, P., Ptacek, L., Punjabi, N.M., Sassone-Corsi, P., Scheer, F.A., Seaquest, E.R., Saxena, R., Thimgan, M.S., Van Cauter, E., and Wright, K.P. (2015) Impact of sleep and circadian disruption on energy balance and diabetes workshop. Sleep. PubMedID# 26564131

25. **Arble**, D. M., Ramsey, K. M., Bass, J. and Turek, F. W. 2010. Circadian disruption and metabolic disease: Findings from animal models. Best Pract Res Clin Endocrinol Metab 24(5), 785-800. PubMedID#21112026

*Book Chapters*

26. **Arble**, D. M. 2022. Chapter 10: Disrupted Circadian Rhythms and Metabolic Function. Biological Implications of Circadian Disruption, A Modern Health Challenge. Editors Nelson, R., and Fonken, L.K.

27. **Arble**, D. M., Copinschi, G., Vitaterna, M.H., Van Cauter, E., and Turek, F. W. 2012. Handbook of Neuroendocrinology: Chapter 12, Circadian Rhythms in Neuroendocrine Systems. Editors Fink, G., Levine, J., and Pfaff, D.W.

*Selected Other Media*

1. Marquette Today, Interviewed with Melissa Barclay on the topic of "Summertime light and mood". August, 2023.

2. CBS 58 Morning News on WMLW on the topic of “Summertime light and mood”. July 31, 2023.

3. Medical press, Press release on Jones et al., 2023 Function publication. May 23, 2023.

4. Milwaukee Magazine, https://www.milwaukeemag.com/5-ways-to-get-better-sleep/. May 16, 2022.

5. Chest Physician, Interviewed with Neil Osterweil for comments on, "Effects of CPAP on Metabolic Syndrome in Patients With OSA: A Randomized Trial". February 21, 2022.

6. Institute for Women’s Leadership, Spotlight on Research; https://www.youtube.com/watch?v=ryIFweaNcZw&t=5s. November 29, 2021.

7. Marquette University's Career Services Center, Podcast. October 2021.

8. NPR Radio (Milwaukee Lake Effect), Interviewed September 2019. Circadian Rhythms and Health.

9. “The Hungry Brain: Outsmarting the Instincts That Make Us Overeat.” Stephan J. Guyenet. February 2017.

10. Highlighted as Northwestern University student researcher, Reporter Sheila O’Sullivan, May 11, 2011. http://www.feinberg.northwestern.edu/research/profiles/2011/d-arble

11. Developed case study for USA TODAY, with reporter Nancy Gromen. February 25th, 2010. http://www.usatodayeducate.com/staging/index.php/case-study-the-truth-about-sleep

12. Chicago Sun-Times, Reporter Monifa Thomas. September 2nd, 2009

13. The Telegraph (UK), Reporter Kate Devlin. September 2nd, 2009, http://www.telegraph.co.uk/health/healthnews/6131413/Its-not-just-what-you-eat-its-when-you-eat-it.html

14. Daily Spiegel (Germany), Reporter Hartmut Wewetzer. September 3rd, 2009

15. Publico (Portugal), Reporter Ana Gerschenfeld. September 3rd, 2009, http://www.publico.pt/Ci%C3%AAncias/investigacao-vem-sustentar-velha-conviccao-comer-fora-de-horas-faz-mesmo-engordar_1399043

16. Australian Broadcasting Corporation Radio (Australia), Reporter Bromwyen Herbert. Aired September 3rd, 2009 (Transcript at http://www.abc.net.au/am/content/2009/s2675104.htm)

17. Le Figaro (France), Reporter Sandrine Cabut. September 4th, 2009, http://recherche.lefigaro.fr/recherche/access/lefigaro_fr.php?archive=BszTm8dCk78atGCYonbyzsS7l9jdd4idDUVRtjJuGjdCIvtpoRwuP1IY%2BvOyGV6iu2IGtjAq08M%3D

18. BBC News Online (UK), Reporter Sudeep Chand. September 4th, 2009, http://news.bbc.co.uk/2/hi/health/8234386.stm

19. “Quirks and Quarks,” CBC News-Network Radio (Canada), Reporter Mark Crawley. Aired September 11th, 2009. (http://www.cbc.ca/health/fitness-blog/2009/09/late-night-calories-could-pack-bigger-punch-for-your-paunch.html)

20. Interviewed by National Institutes of Health, Reporter Vicki Contie. September 23rd, 2009

*Abstracts (*denotes graduate student, **denotes undergraduate student)*

1. *Marino G.M. and **Arble** D.M. The timing and duration of light exposure differentially affects breathing in male mice. Poster Presentation. Society for Research on Biological Rhythms. San Juan, PR, May 18 - 22, 2024. (Presented by Marino G.M.) International

2. *Rivera A., **Thorstenson, E., **Kenny, R., *Kurth M., and **Arble** D.M. 2024. Rats on a High-Fat Diet Exhibit Daytime Anxiety under Time-Restricted Feeding. Poster Presentation. Society for Research on Biological Rhythms. San Juan, PR.

3. **Thorstenson, E., *Rivera A., **Kenny, R., *Kurth M., and **Arble** D.M. 2024 Body Weight Predicts Evening, Anxious-Like Behaviors in Rats Fed a Standard Diet. Poster Presentation. Society for Research on Biological Rhythms. San Juan, PR.

4. *Jones A.A., **Spears A.R., and **Arble** D.M. 2023. The cellular circadian clock of Phox2b-expressing cells drives daily variation of the hypoxic but not hypercapnic ventilatory response in mice. Poster Presentation. American Physiology Summit. Long Beach, CA.

5. *Rivera A., *Kurth M., and **Arble** D.M. 2023. Effect of Diet and Circadian Timing on Anxious and Depressive-like Behaviors in Mice. Poster Presentation. Advances in Sleep and Circadian Science. Clearwater Beach, FL.

6. *Jones A.A. and **Arble** D.M. 2023. Circadian timing contributes to the daily rhythm of ventilation in mice independently of metabolic rate. Poster Presentation. Advances in Sleep and Circadian Science. Clearwater Beach, FL.

7. *Marino G.M., **Nelson L.R., **Arble** D.M. 2023. Molecular Clock Dysfunction Within Leptin-Receptor Expressing Cells Increases Leptin Sensitivity in Mice. Poster Presentation. Advances in Sleep and Circadian Science. Clearwater Beach, FL.

8. **Spears A.R., *Jones A.A. and **Arble** D.M. 2023. The ventilatory response to hypoxia exhibits a circadian rhythm that is driven in by the molecular clock within respiratory, Phox2b-expressing cells in a sex-dependent manner. Poster Presentation. Advances in Sleep and Circadian Science. Clearwater Beach, FL.

9. Jones A.A., *Framnes-DeBoer S.N., **Arble** D.M. 2022. Obesity elicits a sex-specific attenuation of the daily rhythm in ventilation in mice chronically fed a high-fat diet. Poster Presentation. Experimental Biology. Philadelphia, PA.

10. *Framnes-DeBoer, S.N., **Spears, A., **Nour, R., **Arble**, D.M. 2021. Setmelanotide improves the hypercapnic ventilatory response in diet-induced obese mice. Poster presentation. Society for Neuroscience, Chicago, IL.

11. *Jones, A.A, **Propsom, K., **Nelson, L.R, **Arble**, D.M. 2021. The timing of food intake differentially alters daily rhythms in metabolic rate and ventilation in mice. Poster presentation. Society for Neuroscience, Chicago, IL.

12. *Jones, A.A, **Propsom, K., **Nelson, L.R, **Arble**, D.M. 2021. Circadian misalignment of food intake differentially alters daily rhythms in metabolic rate and ventilation in mice. Poster presentation. Gordon Research Conference on Chronobiology, West Dover, VT.

13. Esteba, J.P., Saeian, K., **Arble**, D.M. 2021. Sleep Deprivation, Sleep Debt and Social Jetlag have Age-Dependent Associations with Non-Alcoholic Fatty Liver Disease. Poster Presentation. American Association for the Study of Liver Diseases. Virtual Conference.

14. *Jones, A.A., **Nelson, L.R., **Marino, G.M., **Chappelle, N.A., **Arble**, D.M. 2020. Photoperiod manipulation reveals a light-driven component to the daily oscillation in ventilatory drive. Poster Presentation. Society for Research on Biological Rhythms. Virtual Conference.

15. **Chappelle, N., *Jones, A.A, **Arble**, D.M. 2019. Circadian Rhythmicity of the Hypercapnic Ventilatory Response in Lean but not diet-induced obese mice. Oral presentation. Marquette University, Milwaukee, WI.

16. **Kang, M., *Framnes-DeBoer, S.N., **Arble**, D.M. 2019. The effect of intermittent hypoxia on macronutrient intake in mice. Oral presentation. Marquette University, Milwaukee, WI.

17. *Framnes-DeBoer, S.N., *Jones, A.A, **Arble**, D.M. 2019. Intermittent hypoxia causes cardiometabolic dysfunction in obese, *ob/ob* mice. Poster presentation. Society for Neuroscience, Chicago, IL.

18. *Jones, A.A., **Chappelle, N., **Arble**, D.M. 2019. Photoperiod affects leptin sensitivity and ventilatory drive in the C57Bl/6J mouse. Poster presentation. Society for Neuroscience, Chicago, IL.

19. **Propsom, K., *Framnes-DeBoer, S.N., **Arble**, D.M. 2019. The effect of intermittent hypoxia on body weight regulation in diet induced and genetically obese mice. Poster presentation. Society for Neuroscience, Chicago, IL

20. **Peterson, H., *****Framnes-DeBoer, S.N., **Arble**, D.M. 2019. The effects of acute and chronic intermittent hypoxia on sympathetic tone and body weight regulation in mice Poster presentation. Society for Neuroscience, Chicago, IL

21. *Jones, A.A., **Arble**, D.M. 2019. Photoperiod modulates ventilatory drive through a leptin-melanocortin pathway in the C57Bl/6J mouse. Poster presentation. Chronobiology Gordon Research Conference, Castelldefels, Spain.

22. **Propsom, K., *Framnes-DeBoer, S.N., **Arble**, D.M. 2019. The effect of intermittent hypoxia on body weight and food intake homoeostasis in leptin compromised mice. Poster presentation. Marquette University, Milwaukee, WI.

23. **Peterson, H., *****Framnes-DeBoer, S.N., **Arble**, D.M. 2019. The effects of acute vs chronic intermittent hypoxia on norepinephrine levels in mice. Poster presentation. Marquette University, Milwaukee, WI.

24. **Chappelle, N., *Jones, A.A, **Arble**, D.M. 2019. Diet induced obese mice photoperiod experiment. Poster presentation. Marquette University, Milwaukee, WI

25. **Bakke, E., *Framnes-DeBoer, S.N., **Arble**, D.M. 2019. Examining the Therapeutic Effects of Bromocriptine on Hyperglycemia in Lean and Obese Mice. Oral presentation. Marquette University, Milwaukee, WI.

26. *Framnes-DeBoer, S.N., **Arble**, D.M. 2019. Intermittent hypoxia, sleep fragmentation and glucose tolerance. Poster presentation. Experimental Biology, Orlando, FL.

27. *Framnes, S.N., **Bakke, E., **Arble**, D.M. 2018. The effect of bromocriptine, a D2 agonist, in lean and obese mice. Poster presentation. Society for Neuroscience, San Diego, CA.

28. **Bakke, E., *Framnes, S.N., **Arble**, D.M. 2018. Examining the Therapeutic Effects of Bromocriptine on Hyperglycemia in Lean and Obese Mouse Models. Poster presentation. Marquette University, Milwaukee, WI.

29. **Arble**, D.M., Flak, J., Myers Jr., M., Sandoval, D.A., Seeley, R.J. 2017. A mouse model of sleep apnea reveals a key role for leptin in the pathogenesis of disordered breathing. Poster presentation. Associated Professional Sleep Societies, Boston, MA.

30. **Arble**, D.M., Lewis, A., Myronovych, A., Toure, M.H., Seeley, R.J. 2016. Rat models of mini gastric bypass and single-anastomosis duodenal-switch lead to metabolic improvements similar to roux-en-y gastric bypass and vertical sleeve gastrectomy. Poster presentation. American Society for Metabolic and Bariatric Surgery, New Orleans, LA.

31. Flak, J., **Arble**, D. M., Patterson, C., Sacksner, J., Joosten, M., Olson, D., Rahmouni, K., Seeley, R.J., Myers, M. 2016. A leptin-responsive brainstem circuit that modulates sympathetic responses to noxious stimuli. Poster presentation. 76th Scientific Sessions of the American Diabetes Association, New Orleans, LA.

32. **Arble**, D. M., Flak, J., Myers, M., Polotsky, V., Schwartz, A., Sandoval, D.A., Seeley, R.J. 2016. Beyond body weight: How impaired leptin signaling can affect sleep disordered breathing. Poster presentation. Society for Research on Biological Rhythms, Palm Harbor, FL.

33. **Arble**, D. M., Barkholt, P., Yalamanshili, S., Cohen, R., Sandoval, D.A., Seeley, R.J. 2015. Bromocriptine improves glucose tolerance in mice regardless of dosage time or circadian organization. Poster presentation. Keystone Symposia, Diabetes: New Insights into Molecular Mechanisms and Therapeutic Strategies, Kyoto, Japan.

34. **Arble**, D. M., Pressler, J.W., Sorrell, J., Wevrick, R., Sandoval, D.A. 2015. Vertical sleeve gastrectomy leads to weight loss in a mouse model of Prader-Willi syndrome. Poster presentation. Keystone Symposia: Neural Control of Metabolic Physiology and Diseases, Snowbird, UT.

35. **Arble**, D. M., Sandoval, D.A., Woods, S.C, and Seeley, R.J. 2014. Metabolic effects of bariatric surgery in mouse models of circadian disruption. Poster presentation. Society for the Study of Ingestive Behavior, Seattle, WA.

36. **Arble**, D. M., Holland, J., Raver, C., Sorrell, J., Pressler, J.W., Woods, S.C, Seeley, R.J., Sandoval, D.A., and Perez-Tilve, D. 2014. The melanocortin-4 receptor integrates environmental light cues and metabolism. Oral presentation. Society for Research on Biological Rhythms, Big Sky, MT.

37. **Arble**, D.M., Sandoval, D., Woods, S., and Seeley, R.J. 2013. Vertical Sleeve Gastrectomy improves the metabolic phenotype of Clock mutant mice. Poster presentation. Society for Neuroscience, San Diego, CA.

38. **Arble**, D.M., Sandoval, D., Woods, S., Seeley, R.J., and Perez-Tilve, D. 2013. Melanocortin-4 Receptor is involved in Glucose Homeostasis during Circadian Disruption. Poster presentation. Keystone Symposia Neuronal Control of Appetite, Metabolism and Weight, Banff, Canada.

39. **Arble**, D.M., Bass, J., Vitaterna, M.H., and Turek, F.W. 2010. Feeding During the Circadian Light Phase Leads to Weight Gain in Clock Mutant but not Leptin Deficient Ob/Ob Mice. Poster presentation, Obesity Society, San Diego, CA.

40. **Arble**, D.M., Bass, J., Vitaterna, M.H., and Turek, F.W. 2010. Desynchronized feeding leads to weight gain in C57BL/6J but not leptin deficient ob/ob mice. Poster presentation, Society for Research on Biological Rhythms, Destin, FL.

41. **Arble**, D.M., Bass, J., Vitaterna, M.H., and Turek, F.W. 2010. Feeding during the circadian light phase leads to weight gain in both C57BL/6J and Clock mutant mice. Poster presentation, The

National Institute of Diabetes and Digestive and Kidney Diseases Workshop on Circadian Rhythms and Metabolic Disease, Bethesda, MD.

42. **Arble**, D.M., Bass, J., Vitaterna, M.H., and Turek, F.W. 2009. Feeding during the circadian light phase leads to exaggerated weight gain in young and adult C57BL/6J mice. Oral presentation, Society for Neuroscience, Chicago, IL.

43. **Arble**, D.M., Goldschmidt, C., Vitaterna, M.H., and Turek, F.W. 2009. Sleep during phase restricted feeding in C57BL/6 mice. Poster presentation, Associated Professional Sleep Societies, Seattle, WA.

44. **Arble**, D.M., Laposky, A.D., and Turek, F.W. 2008. Restricting food intake to the light phase results in weight gain in C57BL/6J mice. Oral presentation, Society for Research on Biological Rhythms, Destin, FL.

45. **Arble**, D.M., Augustine, M.R., Laposky, A.D., and Turek, F.W. 2007. Diurnal and circadian activity rhythms in ob/ob and db/db mice. Poster presentation, Society for Neuroscience, San Diego, CA.