The OT NICU lab continues to grow and be hard at work trying to define factors that can support or impede function in our most fragile members of society. Along with progress toward understanding the early NICU environment, the lab continues to work toward a better understanding of early infant development and how parents play an important part in the life of a premature infant.

Building on our previous findings of poorer outcome among infants hospitalized in private NICU rooms, our team has set out to assess the relationship of early sound exposure on brain structure and outcome. Sixty four preterm infants were enrolled and had several sound and language measurements using the LENA device across hospitalization. Infants also had MRI and were assessed with the NNNS at term. This cohort will aid our understanding of the differences in language and sound exposure across room type and will help us understand the relationships between early sound exposure and outcome.

Our team also seeks to define evidenced based interventions that can be conducted with infants in private room NICUs across hospitalization. Interventions in the NICU must be carefully developed, as the time from birth to term equivalent age is a critical one, but also one of vulnerability. In partnership with Joan Smith, ARNP PhD, we seek to identify the evidence regarding tactile, auditory, vestibular, kinesthetic, and visual sensory exposures and to formulate a plan for intentional, optimal sensory exposures for preterm infants across NICU hospitalization. This project is supported by the University Research Strategic Alliance.

This year, we are undertaking a new project aimed at understanding feeding in premature infants and working toward a better tool to assess feeding performance. A new measure, the Neonatal Eating Outcome (NEO) Assessment, has been developed and undergone assessment of content validity, by using experts in neonatal feeding. This tool will be used to assess pre-feeding and feeding skills and has scoring that adapts based on the expected developmental performance across postmenstrual age. With support from the Boston Rehabilitation Outcomes Center, validity and reliability of the tool will be assessed. With support of Innara Health, the project also allows for the weekly monitoring of sucking capacity, which will help with better defining the trajectory of feeding behaviors throughout NICU hospitalization. Approximately half of this cohort has been enrolled.

Finally, the needs of preterm infants do not end at NICU discharge. Bobbi is working to form a team to address a model of care that allows for seamless delivery of care from NICU to home.
WELCOME TO:

New OT students in the lab:
Polly Durant (MSOT ’16), Felicia Foci (OTD ’17), Rachel Harris (OTD ’17), Elizabeth Heiny (OTD ’17), and Justin Ryckman (OTD ’17).

Joy Bender (MSOT ’14) who joined the lab in March as Clinical Research Coordinator.

This summer the OT NICU lab will be welcoming 4 new lab members: Sarah Jossart, Jennifer Donovan, Brittany Calkins, and Cherry Tomatsu. Sarah Jossart is a pre-OT student from Ohio State. Jennifer Donovan, Brittany Calkins, and Cherry Tomatsu are high school students through the Students and Teachers as Researchers (STARS) program sponsored by the University of Missouri-St. Louis.

This summer the lab will also welcome back Michelle Tang, who completed the STARS program last summer.

THANK YOU TO:

Rebecca Armitage (OTD ’17) and Elaine Ward (MSOT ’16) for their contributions to the lab as graduate assistants this year.

Jeanne Kloeckner for her time in helping get the NEO feed study underway.

CONGRATS, WELCOME, AND THANKS!

CONGRATULATIONS TO:

Cori Zarem (OTD ’12) who just got married on April 18 in Cleveland!

Hayley Chrzastowski (OTD ’15) for presenting her poster, Breast Feeding and Early Childhood Development, at the Division of Early Childhood Conference in October, 2014.

Hayley Chrzastowski (OTD ’15) for presenting her poster, Breastfeeding and Early Childhood Development at the Division for Early Childhood International Conference in October 2014. Hayley presented her oral abstract, Maternal Breast Milk Feeding in Preterm Infants and Early Neurobehavioral Outcome at Gravens Conference in March 2015. Hayley also presented two posters at AOTA’s 2015 Annual Conference, Evidence-Based Service Learning Experiences Developed to Achieve OT Ideals and High Impact Approaches to Address Occupational Needs Using Low Tech in Developing Countries.

Odochi Nwabara (OTD ’15) for presenting, Early Therapy Services After NICU Discharge, at Gravens Conference in March 2015. She also presented her poster, Early Therapy Services Following NICU Discharge, at AOTA’s 2015 Annual Conference.

Hayley Chrzastowski (OTD ’15) and Odochi Nwabara (OTD ’15) on their graduation from the Program in Occupational Therapy.

Lisa Tiltges (OTD ’13) and Laura Madlinger-Lewis (OTD ’12) both presented their own work at the National Association of Neonatal Therapists. It is so exciting to see students graduate and go off to do great things. Kudos!
CURRENT STUDENTS AND SUMMER STUDENTS

Hayley Chrzastowski (OTD ’15) is working toward a publication investigating the impact of maternal breast milk consumption on early neurobehavioral outcomes in preterm infants.

Odochi Nwabara (OTD ’15) is working toward publication on early therapy services following NICU discharge. She will be completing her second fieldwork at Nationwide Children’s hospital this summer and her apprenticeship in the fall.

Kelsey Dewey (OTD ’16), along assistance from the rest of the lab, is helping to recruit families and collect infant data for our new feeding study. She is hoping to use data from these infants for her study currently titled *The Development of Oral Motor and Feeding Skills in the Preterm Infant*.

Katie Ross (OTD ’16) is in the process of collecting data for her study titled, *Early Therapy Services in the Neonatal Intensive Care Unit: Relationships to Early Neurobehavior*.

Polly Durant (MSOT ’16) will be assisting with the manuscript relating early neurobehavior to outcome.

Felicia Foci (OTD ’17) will look at the predictors and modifiers of neonatal pain.

Rachel Harris (OTD ’17) will be working on a project related to post-traumatic stress disorder in parents of premature infants and relationships to parent engagement and confidence.

Elizabeth Heiny (OTD ’17) will investigate light and its relationship to visual development.

Justin Ryckman (OTD ’17) will look at the relationship between neonatal pain and sensory processing outcomes.
PROJECTS NEARING COMPLETION:

Continued efforts are being made this spring to complete the Head Turn Preference Scale for the manuscript, *Head Turn Preference in Preterm Infants and Associations with Outcome*. It has been a team effort to format and determine the psychometric properties of this scale.

Other projects nearing completion include *The Relationships of Early Neurobehavior to Outcome* and *The Neurodevelopmental Profile, Growth, and Psychosocial Environment of Preterm Infants with Difficult Feeding Behavior*, with Tara Crapnell as lead author.

MANUSCRIPTS

Since our lab newsletter, the following articles have been accepted for publication:


OTHER LAB HAPPENINGS:

We had the pleasure of having Betty Hutchon here, all the way from London, April 3-4 to train us on the Bayley Scales of Infant and Toddler Development, 3rd Edition. What a great experience for all!


**UPDATES ON PREVIOUS OT STUDENTS**

**Cori Zarem – OTD ‘12**
Cori got married on April 18th in Cleveland. She still works in both pediatrics and now primarily in cardiology and cardiac surgery at Cleveland Clinic. She’s had a great few months working with their surgical neonatal population and is excited to be helping with inservices to nursing about early consultation of OT in the neonatal and pediatric population. cszarem86@gmail.com

**Joy Bender – MSOT ‘14**
Joy has accepted a part-time, temporary position in the OT NICU lab. She has been integral in getting informed consents, doing N-Trainer assessments, and doing feeding measures. She also has accepted a part-time position at the Bell center. bender@wusm.wustl.edu

**Amanda Brown (Felber) – MSOT ‘11**
Amanda and her husband recently moved from Nashville to Franklin, Tennessee and are enjoying their new space and attempting to unpack their sea of boxes! Amanda continues to work as an OT consultant Mondays through Thursdays at the Brown Center for Autism in Nashville and sees kids on her own, teaches a ballet class for kids with autism, and will begin doing aquatic therapy and swim lessons next month. She continues to work PRN at Vanderbilt Stallworth Rehabilitation Center on the weekends and is picking up a second PRN position at NHC. She looks forward to taking more sensory integration courses this summer and hopes to make it back to Wash U for a course in the near future! amandasfelber@gmail.com

**Tara Crapnell – OTD ‘13**
Tara currently works as the Program Manager of the Health Care Transitions Research Network (HCT-RN) for Youth and Young Adults with Autism Spectrum Disorders (ASD) at UCLA. It is the first national collaborative research network aimed to address the health, family, and social needs of individuals with ASD as they transition into adulthood. She also works as a pediatric OT at an early intervention clinic in Orange County. In addition, she still serves on the Creativity Identity’s Board of Directors, a music and expressive arts day program for adults with intellectual and developmental disabilities. She is in the process of editing her second feeding manuscript and will be submitting to Journal of Pediatrics at the end of April. CrapnellT@outlook.com

**Ali Lynch (Castellano) – MSOT ‘10**
Ali still works at Special School District in Hazelwood. She also continues to do private home therapy on the side. Additionally, she sells Stella & Dot jewelry/accessories and Juice Plus (fruits and vegetables in a capsule). With her work schedule, she is able to travel quite a bit and is looking forward to some upcoming domestic and international travel! Ryan and Ali are still living in Kirkwood and loving it. No babies for them yet, but they’ll probably start trying toward the end of this year! alisonleelynch@gmail.com
Mallory Duncan (Hensley) - OTD ‘11
Mallory just accepted a new position as a Clinical Liaison doing healthcare sales, marketing, and enrollment for the inpatient rehabilitation unit at Anderson Hospital in Maryville, IL. She starts April 28. Her daughter (see picture!) turned one on April 12.
mallorymduncan@gmail.com

Sonya Dunsirn – OTD ‘14
Sonya has been enjoying her first few months as a contributing member of society. In February, she took a full-time position at Mt. Washington Pediatric Hospital in Baltimore, MD. She spends her days with a few rehab patients but gets to pack her schedule full of baby neurodevelopmental evals and infant treatment sessions. The NICU lab has not only prepared her to work with a specialized population, it has also taught her that hard work and dedication can lead to great things. So, to ensure that she has no social life, she has also taken a PRN position at Johns Hopkins Pediatric Hospital. When she is not surrounded by babies, Sonya is busy traveling.
New contact info:
sonya@dunsirn.com
sdunsirn@mwph.org

Laura Lewis (Madlinger) - OTD ‘12
Laura continues to work in the NICU part time at UIC hospital, and also does a small amount of birth doula work. She recently presented her poster on the neonatal therapist role in working with pregnant women on hospital bed rest at the 2015 NANT conference. Her daughter Rebecca (see photo) turns one this month!
laura.madlinger@gmail.com

Lauren Reynolds (Strnad) - OTD ‘12
Lauren continues to work part time in the NICU lab at Wash U and enjoys her position as a research coordinator. She and her husband celebrated their daughter’s 1st birthday (see photo) on April 14th, and they are all looking forward to moving to sunny Atlanta in June!
laurenreynolds912@gmail.com

Kelsey Melchior – MSOT ‘14
Kelsey passed her NBCOT in February and got her license in March. She is currently working part-time at Delmar Gardens and part-time at a peds sensory clinic called Leaps and Bounds. She also took a school contract for the Rockwood School District, where she is seeing preschoolers! She is super busy but loves having the opportunity to gain insight into so many different areas of practice. kmelchior4@gmail.com

Katrina Stransky (MSOT ’09) katrinastransky@gmail.com, Melissa Mara (MSOT ’13) mmara889@gmail.com, Kristin Seefeldt (MSOT ’13) Knicolessefeldt@gmail.com, Lisa Tiltges (OTD ’13) tiltges@comcast.net, Laura Mazelis – MSOT ’14 lauramazelis@gmail.com, and Stephanie Walker (MSOT ‘11) swalker@ric.org are MIA for this edition’s update. We hope they are doing well and look forward to hearing from them in the future!