# **Psychiatry Grand Rounds**

WCM Department of Psychiatry Psychology CE Announcement

## Socioeconomic Inequity and Children's Development





Department of Psychiatry full time and voluntary faculty Psychologists, Social Workers and LMHCs, who sign in with their full name, attend the entire lecture and complete a survey which will be emailed following the completion of the lecture. Note you can join no later than 10 minutes after the start of time and must stay for the entire duration of the event for CE eligibility. The CE survey must be completed within 30 days of the lecture. Please contact wempsychiatryce@med.cornell.ed u for additional CE information

### Kimberly Noble, MD PhD

Professor of Neuroscience and Education Teachers College, Columbia University

Location: Uris Auditorium AND Livestreamed via Zoom

Wednesday, April 16th, 2025 11:00am – 12:00pm https://weillcornell.zoom.us/j/92812036154 Meeting ID: 928 1203 6154 Password: 12345

#### Speaker

Kimberly Noble MD PhD is a Professor of Neuroscience and Education at Teachers College, Columbia University. As a neuroscientist and boardcertified pediatrician, she studies how socioeconomic inequality relates to children's cognitive and brain development. Her work examines socioeconomic disparities in cognitive development, as well as brain structure and function, across infancy, childhood and adolescence. She is particularly interested in understanding how early in infancy or toddlerhood such disparities develop; the modifiable environmental differences that account for these disparities; and the ways we might harness this research to inform the design of interventions. She has funding from the NIH and more than 20 private foundations, and is one of the principal investigators of Baby's First Years, the first clinical trial of poverty reduction in early childhood. Dr. Noble received her undergraduate, graduate and medical degrees at the University of Pennsylvania, completed postdoctoral training at the Sackler Institute of Developmental Psychobiology of Weill Cornell Medical College, and completed her residency in pediatrics at Columbia University Medical Center / Morgan Stanley Children's Hospital of New York -Presbyterian. She was the recipient of the Association for Psychological Science Janet Taylor Spence Award for Transformative Early Career Contributions, the American Psychological Association award for Distinguished Contributions to Psychology in the Public Interest, and is a Fellow of the Association for Psychological Science. Her TED talk has received more than 2 million views, and her work has received worldwide attention in the popular press.

Financial Disclosure: Dr. Noble has no relevant financial relationship(s) with ineligible companies to disclose and DOES NOT INTEND to discuss off-label or investigational use of products or services.

#### Abstract

Socioeconomic disparities in childhood are associated with notable differences in cognitive and socio-emotional development during a time when dramatic changes are occurring in the brain. Recent work has focused on understanding the neurobiological pathways through which socioeconomic factors may shape development. It is likely that socioeconomic factors operate via multiple mechanisms to explain the development of different neural circuits. A theoretical model will be presented whereby differences in the home language environment and family stress likely impact particular brain systems, which in turn support distinct neurocognitive skills. Evidence for the model, as well as ongoing and future work testing aspects of the model, will be discussed. Finally, the question of interventions will be addressed, along with an overview of early findings from the first US clinical trial of unconditional income support in early childhood.

#### Learning Objectives

- 1. Define poverty
- 2. List three associations between poverty and child development
- 3. Describe the design of the Baby's First Years randomized control trial

#### References

- 1. Noble, K. G., Magnuson, K., Gennetian, L. A., Duncan, G. J., Yoshikawa, H., Fox, N. A., & Halpern-Meekin, S. (2021). Baby's First Years: Design of a randomized controlled trial of poverty reduction in the United States. *PEDIATRICS*, *148*(4). https://doi.org/10.1542/peds.2020-049702
- 2. Troller-Renfree, S. V., Costanzo, M. A., Duncan, G. J., Magnuson, K., Gennetian, L. A., Yoshikawa, H., Halpern-Meekin, S., Fox, N. A., & Noble, K. G. (2022). The impact of a poverty reduction intervention on infant brain activity. *Proceedings of the National Academy of Sciences*, 119(5). https://doi.org/10.1073/pnas.2115649119
- 3. Noble, K. G., Houston, S. M., Brito, N. H., Bartsch, H., Kan, E., Kuperman, J. M., Akshoomoff, N., Amaral, D. G., Bloss, C. S., Libiger, O., Schork, N. J., Murray, S. S., Casey, B. J., Chang, L., Ernst, T. M., Frazier, J. A., Gruen, J. R., Kennedy, D. N., Van Zijl, P., . . . Sowell, E. R. (2015). Family income, parental education and brain structure in children and adolescents. *Nature Neuroscience*, *18*(5), 773–778. https://doi.org/10.1038/nn.3983

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