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### Title

Bundling the Haystacks and Finding the Needle: Enhancing Rigor and Reproducibility in Early Life Stress Research

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**47. Bundling the Haystacks and Finding the Needle:  
Enhancing Rigor and Reproducibility in Early Life Stress  
Research**

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**Study Group Summary:** Considering the vast number of children worldwide growing up under some form of chronic early life stress (ELS), the importance of understanding how ELS influences development is undeniable. Since many of the symptoms resulting from ELS often first emerge later in life, intervening variables found in clinical studies make the role that ELS plays in these diseases difficult to interpret. Animal models have therefore been helpful to clarify the causality of ELS, however they also bring new issues including the translatability to human experience, strain and species differences, and paradigm differences between laboratories. Indeed, the increasingly wide variability in species, strains, and paradigms used to model ELS has made the task of identifying underlying mechanisms akin to finding a needle in a haystack. Currently, rigor and reproducibility of ELS studies are hindered by a lack of a standard operational definition of ELS, and a lack of training opportunities to consult and establish a consensus on the appropriate design, implementation, and reporting of this work. The goals of this study group are to (1) foster discussion on the best practices to be implemented in ELS studies; (2) connect animal researchers with clinical researchers to share ideas about what is needed for effective translation; (3) establish a consensus for what ELS is (and what it isn't), as well as how experimental design should be reported.

In this session, we will compare and contrast different models of postnatal ELS, including the limited bedding paradigm, maternal separation, and maternal deprivation. The participants will address the intended and unintended consequences of various ELS paradigms, and how each of these factors can vary between laboratories. Emphasis will also be placed on methodological considerations like strain and sex differences, timing of stress exposure, reporting maternal behavior alterations, and breeding issues. Finally, presenters will discuss how the various human experiences of ELS can be best modeled, and how animal researchers and clinical researchers can report findings to each other with the most transparency.

We believe that our study group discussion will facilitate the development of best practice guidelines for ELS models in order to improve the rigor, reproducibility, and transparency of this research.

**Disclosure:** Nothing to disclose.