Dear Editor,

# We would like to submit the enclosed manuscript entitled "A Convenient Method for Catecholamines Neurotransmitters and Their Metabolites Extraction and Analysis with High-pressure Liquid Chromatography in Infants’Urine", which we wish to be considered for publication in JoVE.

The work described has not been submitted elsewhere for publication, in whole or in part, and all the authors listed have approved the manuscript that is enclosed.We believe that two aspects of this manuscript will make it interesting to general readers of your journal.

First, we developed a simple and convenient solid-phase extraction coupled to HPLC-ECD for determination of three monoamine neurotransmitters and two of their metabolites in infants’ urine simultaneously. The column packed with electrospun nanofibers used to purify the urine sample is highly effective and selective.

Second, the established method was applied into assessing the differences of urinary catecholamines between the high-risk infants with perinatal brain damage and healthy controls. Comparative analysis reveals a significant difference in urinary MHPG between the two groups, indicating that MHPG may be a candidate marker for early diagnosis of cases at risk for brain damage in infants. Indicating that the method in the study is suitable for clinical use, and promising in exploring the early diagnosis of neurosystem diseases of high-risk infants via urine medium.

Thank you very much for your time and consideration.

Sincerely yours,

Li Xie