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| Book Name: | [**Medical Science: Recent Advances and Applications**](https://bookstore.bookpi.org/product/medical-science-recent-advances-and-applications-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5878** |
| Title of the Manuscript:  | **Nature Vs Nurture: Cocaine Exposed Spermatogonia Impact Behavior and Executive Functions of Naive Offspring** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Addiction Research, 9(1): 1-7, 2025.**

**Available:** [**https://www.scivisionpub.com/abstract-display.php?id=3895**](https://www.scivisionpub.com/abstract-display.php?id=3895)

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **The manuscript addresses an innovative and emerging topic in addiction medicine, exploring the behavioral impairments due to epigenetic changes subjected to cocaine exposure in sperm cells, a condition still lacking a full understanding especially in paternal epigenetic inheritance . The study is well selected and clinically relevant, with adequate active parameters and use of valid behavioral assays.** |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **The article title is suitable for publication.** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **Introduction and abstract: I suggest to reduce the background information, please remove or shorten the mention of Andean coca usage as it is not the focus of the study and replace it with a precise research question or hypothesis.Methods: specify and include molecular assessments (e.g. DNA methylation, ΔFosB quantification).****Results: the study clearly show a clear dose-dependent behavioral change on the qualitative point of view, however there’s a lack of a quantitative detail (numerical values of means and SEMs) in the result section which can limit the understanding of the data.** **Discussion and conclusion: the manuscript addresses very well the theme “nature vs nurture” with the connection of valid references, however it should acknowledge its limitations more openly (e.g. short study duration and propose specific follow-up experiments) and end with specific recommendations for future research (e.g. intervention trials, gene assays).** |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **The abstract mentions results which are relevant for the understanding of the study, therefore I recommend to include a brief mention of key results (e.g. 30% decrease in wheel activity; p < 0.01). Moreover, since epigentics has a crucial role in the study but it is not clearly connected to the mechanisms please add a brief explanation to clarify the mechanisms involved in epigenetic transmission via sperm DNA damage (e.g. sperm DNA damage, ΔFosB). Finally, cocaine is a powerful psychostimulant, even though it has been classified as a narcotic, chemically it is not an opioid. Therefore please replace the term “opiate” with more accurate terms such as “stimulant”, “psychostimulant” or “dopaminergic agent”.**  |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | **The references are valid and sufficient.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | Overall, both in the abstract as well as in the main text, authors are encouraged to correct typos (e.g. chow into show, xygote into zygote) and improve readability by reducing redundancy and simplifying long sentences.  |  |
| Optional/General comments | This study offers an intriguing new look at the behavioral effects of paternal cocaine exposure with potential epigenetic mechanisms. While results and experimental design are engaging, The paper would be enhanced by clearer language, a shorter story, and judicious explanation of the mechanisms not specifically quantified. With revisions, this study might offer a solid contribution to the behavioral epigenetics literature. |  |

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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  |  |  |

**Reviewer details:**

**Alessandro Matteo Sileoni, Italy**