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Book Name:	Recent Developments in Chemistry and Biochemistry Research
Manuscript Number:	Ms_BPR_3855
Title of the Manuscript:	Antimycobacterial activity of nitrogen heterocycles derivatives: 7-(pyridine-4-yl)- indolizine derivatives. Part VII ⁸⁻¹²
Type of the Article	Book chapter

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	Yes, it is important to the scientific community, but some corrections are needed in the manuscript.	
Is the title of the article suitable? (If not please suggest an alternative title)	I think it's appropriate as a title.	
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.	<ul style="list-style-type: none"> - The abstract mentions a moderate to high cytotoxicity of the compounds, which may overshadow their potential as drug candidates. Suggest adding a statement about the need for further optimization to address this issue. - The conclusion highlights poor ADMET properties but should connect this limitation to potential future modifications or alternative applications. 	
Are subsections and structure of the manuscript appropriate?	Yes, it's appropriate	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	<ol style="list-style-type: none"> 1. While the introduction provides a strong rationale for the study, the discussion should better connect findings to broader antimycobacterial research trends. Cite recent works addressing similar challenges. 2. Some figures and tables (e.g., Table 1 and Table 4) could be better formatted for readability. Highlight key results more clearly using bold text or shading. Add a graphical abstract or schematic summarizing the SAR findings to engage readers. 3. The cytotoxicity results (IC50 values in human cell lines) are a significant drawback. Provide insights into structural modifications that could reduce cytotoxicity while retaining activity. 4. The compound with the best anti-TB profile (6i) shows poor permeability and high clearance rates. Discuss in more detail how these issues could be addressed in future studies (e.g., prodrug strategies or structural refinements). 5. Mention the inclusion of supplementary data explicitly in the manuscript, as these might address detailed methodology or additional experimental findings. 6. The activity of the compounds is compared to rifampicin and other controls, but the lack of selectivity index >1 may raise concerns. Emphasize in the discussion that these compounds serve as leads, not final drug candidates. 7. The manuscript hypothesizes specific interactions with binding sites but does not provide 	

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	experimental evidence. Including docking studies or identifying potential molecular targets could strengthen the discussion.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		
<u>Minor</u> REVISION comments Is the language/English quality of the article suitable for scholarly communications?	a. Some sections (e.g., SAR discussion) are repetitive or verbose. Simplify the presentation of results to improve readability. b. Proofread the manuscript for minor grammatical errors and awkward phrasing (e.g., "motivating in the same time for further studies").	
<u>Optional/General</u> comments	The manuscript focuses on the synthesis and antimycobacterial activity of indolizine derivatives, highlighting new compounds with potential therapeutic applications. A clear structure-activity relationship (SAR) study has been conducted to understand the influence of substituents on biological activity. The synthesis and characterization of compounds are well-documented, including NMR, IR, and elemental analyses. PLEASE SEE ATTACHMENT	

PART 2:

	Reviewer's comment	Author's comment (if agreed with 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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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