

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Virology

**ESPS manuscript NO:** 25565

**Title:** Genotyping and pathotyping of diversified strains of infectious bronchitis viruses circulating in Egypt

**Reviewer's code:** 00504045

**Reviewer's country:** China

**Science editor:** Shui Qiu

**Date sent for review:** 2016-03-17 16:51

**Date reviewed:** 2016-03-26 14:10

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

ESPS Manuscript NO: 25565 Title: Genotyping and pathotyping of diversified strains of infectious bronchitis viruses circulating in Egypt In this study, Ali Zanaty et al. isolated 20 IBV isolates from 20 chicken flocks in Egypt and characterized the genotypes of the isolates to be two groups (classic and variant, and the latter was further classified into two subgroups) and tested the pathogenicity of three selected isolates to SPF chicks. The work contributed to the epidemiology and biology of IBV. The experiments were well designed and the manuscript is well organized. However, the manuscript needs to be improved in English writing. Negative controls should be included in Fig. 2. EG/Beni-Suif/01 is equal to Egypt/Beni-Suef/01?For more details, please refer to the revised manuscript uploaded.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Virology

**ESPS manuscript NO:** 25565

**Title:** Genotyping and pathotyping of diversified strains of infectious bronchitis viruses circulating in Egypt

**Reviewer's code:** 00504019

**Reviewer's country:** China

**Science editor:** Shui Qiu

**Date sent for review:** 2016-03-17 16:51

**Date reviewed:** 2016-03-28 10:48

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

These results provide evidence of evolving the recent Egyptian IBV strains and at least two groups of variants are co-circulating in Egypt with high mortality in SPF chicks. In my opinion, the paper is sufficient for publishing in the World Journal of Virology. But before publication, some revision should be done.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Virology

**ESPS manuscript NO:** 25565

**Title:** Genotyping and pathotyping of diversified strains of infectious bronchitis viruses circulating in Egypt

**Reviewer's code:** 03520277

**Reviewer's country:** Brazil

**Science editor:** Shui Qiu

**Date sent for review:** 2016-03-17 16:51

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Peer-reviewers' conclusions The manuscript presents molecular and biological characterization of field strains from IBV in Egypt. Authors identify two subgroups identified as Egy/Var-I and Egy/Var-II (variant groups) and a Mass group. Partial sequence of S1 protein was performed and amino acid identities were evaluated. An experimental infection in SPF chicks was performed with the three viruses (Egy/Var-I, Egy/Var-II and Mass group). Mortality/Survival rate, clinical signs, gross lesion and virus detection in tissues were examined. Authors concluded there are two distinct variants co-circulating in Egypt. Although the present study is very interesting, there are misunderstanding conclusions. Main limitations observed: Phylogenetic tree has low bootstrap values due to small fragment (400pb), difference in experimental study are not very evident. Is there any significant difference? (1) overall structure Overall the manuscript is completed. the conclusion is present in the last paragraph; nonetheless a specific topic "conclusion" is not included. Abstract does not contain the major achievements of the present work. (2) Introduction section Authors suggest that two distinct lineages are co-circulating in Egypt. They provide a good experimental

study to evaluate the pathogenesis of these strains. They also performed a partial sequencing of S1 protein, which has a limit result to conclude the two subgroups are different. (3) Methods section. Samples and flock history: “showing mild to severe” not “sever” How old were chickens when vaccination was performed?? Sentence needs to be rewritten: “birds were suffering from kidney damage...” Virus detection and isolation and Sequencing of the S1 gene and phylogenetic analysis Suppl table is not needed. Authors can only add the references for primers/probe. Sequencing of the S1 gene and phylogenetic analysis More representative sequences need to be added in the phylogenetic tree. Some information of M&M are mixed up with results. For example: Pathogenicity subsection: The presence of IBV was checked in samples obtained from the inoculated groups at 14 days post-infection. The real-time rRT-PCR test was performed for the detection of virus concentration in the tissues. (4) Results section. Samples obtained from sick flocks were screened by a described rRT-PCR assay. Positive samples were isolated and sequencing. One limitation was this study is the small fragment sequenced (up 400bp) of S1 protein. In consequence, the phylogenetic analysis has a low bootstrap (only 22%) defining branches. These values have to be higher. Please see the recent study Valastro et al 2016. Table 3 and 4 can be fused. Some information are duplicated in both tables. Figure 2. It is not clear. “Histopathology illustration of the trachea and kidney from experimentally infected chickens.” With which virus in figure A, B, C and D? In experimental study, why authors did not quantify the virus in tissues as they performed a rRT-PCR? (5) Discussion section Authors did a molecular and biological characterization of two variants and Mass variant. Based on pathogenicity study and phylogenetic study authors cannot prove that there are two distinct lineages co-circulating in Egypt. Are those differences (Mortality, gross scores). (6) Conclusion section. Authors claims presence of two variant groups co-circulating in Egypt with high mortality in SPF chicks. Nonetheless, it is not clear if there are two distinct lineages (Egy/Var-I and Egy/Var-II) as they had similar pathogenicity and amino acid identities. The only main difference was virus detection in lung (present in Var-II but not in Var-I). Can authors explain this finding? Unfortunately, score of gross lesion in lung was not performed. (7) References Valastro et al Infect Genet Evol. 2016 Apr;39:349-64. doi: 10.1016/j.meegid.2016.02.015 needs to be cited as they proposed a harmonize virus classification