

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 65881

Title: FGF -TS 2D1, a Novel FGF Fusion Gene Identified in a Patient with colorectal cancer: case report

Reviewer's code: 05601692

Position: Peer Reviewer

Academic degree: BPharm, MS

Professional title: Academic Research, Pharmacist, Research Scientist, Senior Scientist, Teaching Assistant

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-03-17

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-19 16:52

Reviewer performed review: 2021-03-20 20:20

Review time: 1 Day and 3 Hours

Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

SPECIFIC COMMENTS TO AUTHORS

Colorectal cancer (CRC) affects millions people and is also one of the most common cancers in the world. Genetic alterations in Fibroblast growth factor receptor (FGFR) is commonly observed in many CRC cases. Common genetic alterations in FGFR includes simple mutations, as well as fusion of FGFR gene with another gene leading to abnormal expression of FGFR. Therefore, it is proposed that CRC patients could be treated with FGFR inhibitors to curtail cancer cell growth. In this case port, using the Next Generation Sequencing (NGS), , the authors identified a FGFR2-TSC22D1 fusion gene in a 59-year old individual. They observed that the fusion gene contained exons 1-17 of FGFR2 and exon 3 of TSC22D1, with the complete kinase domain of the FGFR2 gene. This was the first report showing the presence of a fusion gene between FGFR2 and TSC22D1 in CRC patient. The authors suggested that, FGFR2 inhibitors could be used in the treatment of CRC patients having a fused gene (FGFR2-TSC22D1). This is a novel study and demonstrated for the first time the existence of a fusion gene between FGFR2 and TSC22D1 and is of significant interest to the scientific community.

Comments: This is a very interesting report, however, the authors can revise the manuscript as per the following suggestion. 1. Please explain the functions of TSC22D1 gene. The authors can include the following sentence in the text on page 3, line 66. TSC22D1 (TSC22 domain family protein 1) is a transcription factor belonging to the large family of early response genes. Dimers of TSC22D1 act as transcription factors and have tumor suppressor function. 2. Page 3, line 75, please change "...event may represent..." to "...event may represent....". 3. Page 3, line 70-71, the authors state that "FGFR2 positive was considered". Please rephrase the sentence to make it clear.

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 65881

Title: FGF -TS 2D1, a Novel FGF Fusion Gene Identified in a Patient with colorectal cancer: case report

Reviewer's code: 05458761

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Academic Research, Assistant Lecturer, Attending Doctor, Doctor, Postdoc

Reviewer's Country/Territory: Albania

Author's Country/Territory: China

Manuscript submission date: 2021-03-17

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-19 23:23

Reviewer performed review: 2021-03-21 20:14

Review time: 1 Day and 20 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The case report of Xiaoming Kao et al demonstrated a case a colorectal cancer patient with FGFR2-TSC22D1 fusion gene. It represents a novel FGFR2 fusion gene identified in colorectal cancer. The paper is well conceived, worthy of consideration, above all because it fulfills two of the criteria to be a case report: findings that shed new light on the possible pathogenesis and novel treatment. Also, the title reflects the main subject of the manuscript which is well summarize in the abstract. Minor revision: the case should be presented in more details. Importance may represent the personal medical history of the patient. Also, the authors should give more information on the further treatment of the patients. As, the manuscript does contain new and significant information according further consideration on the treatment development of the patients with colon cancer containing this gene, it justifies the publication.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 65881

Title: FGF -TS 2D1, a Novel FGF Fusion Gene Identified in a Patient with colorectal cancer: case report

Reviewer's code: 05601692

Position: Peer Reviewer

Academic degree: BPharm, MS

Professional title: Academic Research, Pharmacist, Research Scientist, Senior Scientist, Teaching Assistant

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-03-17

Reviewer chosen by: Jia-Ru Fan

Reviewer accepted review: 2021-04-14 13:47

Reviewer performed review: 2021-04-15 22:14

Review time: 1 Day and 8 Hours

Scientific quality	[<input checked="" type="radio"/>] Grade A: Excellent [<input type="radio"/>] Grade B: Very good [<input type="radio"/>] Grade C: Good [<input type="radio"/>] Grade D: Fair [<input type="radio"/>] Grade E: Do not publish
Language quality	[<input checked="" type="radio"/>] Grade A: Priority publishing [<input type="radio"/>] Grade B: Minor language polishing [<input type="radio"/>] Grade C: A great deal of language polishing [<input type="radio"/>] Grade D: Rejection
Conclusion	[<input checked="" type="radio"/>] Accept (High priority) [<input type="radio"/>] Accept (General priority) [<input type="radio"/>] Minor revision [<input type="radio"/>] Major revision [<input type="radio"/>] Rejection
Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No

SPECIFIC COMMENTS TO AUTHORS

Colorectal cancer (CRC) affects millions people and is also one of the most common cancers in the world. Genetic alterations in Fibroblast growth factor receptor (FGFR) is commonly observed in many CRC cases. Common genetic alterations in FGFR includes simple mutations, as well as fusion of FGFR gene with another gene leading to abnormal expression of FGFR. Therefore, it is proposed that CRC patients could be treated with FGFR inhibitors to curtail cancer cell growth. In this case port, using the Next Generation Sequencing (NGS), , the authors identified a FGFR2-TSC22D1 fusion gene in a 59-year old individual. They observed that the fusion gene contained exons 1-17 of FGFR2 and exon 3 of TSC22D1, with the complete kinase domain of the FGFR2 gene. This was the first report showing the presence of a fusion gene between FGFR2 and TSC22D1 in CRC patient. The authors suggested that, FGFR2 inhibitors could be used in the treatment of CRC patients having a fused gene (FGFR2-TSC22D1). This is a novel study and demonstrated for the first time the existence of a fusion gene between FGFR2 and TSC22D1 and is of significant interest to the scientific community. The revised paper addresses concerns raised by reviewers, the manuscript is well written and adds new knowledge to the literature.