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August 20, 2021

IsoPlexis Corporation
Registration Statement on Form S-1
Filed July 20, 2021
File No. 333-258046

Dear Mmes. Park and Westbrook:

IsoPlexis Corporation (the "<u>Company</u>") has filed today with the staff (the "<u>Staff</u>") of the Securities and Exchange Commission (the "<u>SEC</u>"), via EDGAR, this letter and the Company's Amendment No. 1 to the Registration Statement on Form S-1 (the "<u>Amended Registration Statement</u>"). This letter and the Amended Registration Statement set forth the Company's responses to the comments of the Staff contained in your letter dated July 30, 2021 (the "<u>Comment Letter</u>"), relating to the Company's Registration Statement on Form S-1 filed with the SEC on July 20, 2021 (the "<u>Registration Statement</u>").

Registration Statement on Form S-1 filed July 20, 2021

The numbered paragraphs and headings below correspond to those set forth in the Comment Letter. Each of the Staff's comments is set forth in bold, followed by the Company's response to each comment. Capitalized terms used in this letter but not defined herein have the meaning given to such terms in the Amended Registration Statement.

Prospectus Summary

Recent Developments

Preliminary Financial Results for the Second Quarter Ended June 30, 2021, page 5

1. Please revise this section to identify and discuss the factors and trends that led to the significant differences in revenues and loss from operations for the periods presented here.

Response: The Company respectfully acknowledges the Staff's comment and advises the Staff that the Company has updated the Amended Registration Statement to include its unaudited consolidated interim financial statements for the six months ended June 30, 2021 and related disclosure, and as such it has removed the preliminary financial results for the second quarter ended June 30, 2021 from the section titled "Prospectus Summary—Recent Developments" in the Registration Statement. Accordingly, we respectfully believe that this comment is no longer applicable.

Exhibits

2. Please file a signed copy of the Exhibit 5.1 opinion.

Response: The Company respectfully acknowledges the Staff's comment and advises the Staff it will file a signed copy of the Exhibit 5.1 opinion to a later pre-effective amendment to the Registration Statement.

* * *

Should you have any questions or comments with respect to the Amended Registration Statement or this letter, please contact Matthew G. Jones at 212-474-1298.

Sincerely, /s/Matthew G. Jones

Matthew G. Jones

VIA EDGAR

Copy to:

Sean Mackay, Chief Executive Officer IsoPlexis Corporation 35 NE Industrial Rd Branford, CT 06405

VIA E-MAIL