UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

September 13, 2018

James Clavijo
Chief Financial Officer
Aeterna Zentaris Inc.
315 Sigma Drive
Summerville, South Carolina 29486

Re: Aeterna Zentaris Inc.
Form 20-F for the Year Ended December 31, 2017
Filed March 28, 2018
Form 6-K for the Month of May 2018
Filed May 7, 2018
File No. 001-38064

Dear Mr. Clavijo:

We have reviewed your August 14, 2018 response to our comment letter and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this comment within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this comment, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our August 2, 2018 letter.

Form 6-K filed May 7, 2018

Exhibit 99.1
Notes to Condensed Interim Consolidated Financial Statements (unaudited)
4 Licensing Arrangements, Page 10

1. With regard to your response to comment two, please tell us why you believe:
   - that the "right to use" license for the pediatric indication of Macrilen™ (macimorelin) in the USA and Canada was distinct as specified in paragraph 27 of IFRS 15. Explain how Strongbridge can benefit from the license without the research and development

services,

- it was appropriate to separate the research and development obligation from the license agreement and account for the research and development as a collaboration arrangement. Reference supporting authoritative literature or industry practice,
- that the two licenses were separate performance obligations, that is, distinct in the context of the contract. Please reference the supporting provisions in the license agreement and IFRS 15,
- that the $5 million upon the approval of Macrilen for the Pediatric Indication should be included in the transaction price, i.e., it is highly probable that a significant reversal of cumulative revenue recognized will not occur, and
- that the fair value of the pediatric indication is significantly less than the adult indication. We note that you state in your press release regarding the license agreement that adult growth hormone deficiency reportedly affects approximately 60,000 adults across the U.S. and Canada.

You may contact Sisi Cheng at 202-551-5004 or Lisa Vanjoske at 202-551-3614 with any questions.

Sincerely,

Division of Corporation Finance
Office of Healthcare & Insurance