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

DIVISION OF
CORPORATION FINANCE

Mailstop 4720

December 1, 2015

Via E-mail
Harry E. Gruber, M.D.
President and Chief Executive Officer
Tocagen Inc.
3030 Bunker Hill Street, Suite 230
San Diego, CA 92109

Re: Tocagen Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted November 20, 2015
CIK No. 0001419041

Dear Dr. Gruber:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Prospectus Summary
Overview, page 2

1. We note your response to our prior comment 1. Please revise your disclosure to state that you cannot find reliable incidence data for recurrent HGG.

Business, page 76

Overview, page 76

2. We note your response to our prior comment 9. We do not agree with your analysis that it is inappropriate to provide a brief explanation of the terms Fast Track designation and orphan drug designation at first use in order for any potential lay investors to understand the significance of such FDA designations. At first use, please provide a brief explanation of the requirements for and benefits of Fast Track designation and orphan drug designation. Please also include an estimate of the number of people in the United States currently diagnosed with glioblastoma ("GBM"), since you intend to rely on such information to receive orphan drug designation. Lastly, please provide a brief explanation of how orphan drug designation for GBM may affect the approval and marketing of a product candidate for HGG. Please make corresponding changes to the Prospectus Summary.

Clinical Development of Toca 511 & Toca FC
Ongoing Phase 1 Clinical Trials, page 87

Ongoing Resection Injection Trial, page 88

3. At first use, please explain the term "hazard ratio" for a lay investor to understand.

Ongoing Resection Injection Trial Compared to Lomustine External Control, page 91

4. Please provide a brief explanation of the term "Karnofsky performance status" and what it measures.

Please contact Christina Thomas at (202) 551-3577, Michael Clampitt at (202) 551-3434 or me at (202) 551-3675 with any questions.

Sincerely,

p.p./s/ Michael Clampitt

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Via E-mail
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