

November 10, 2016

Via EDGAR

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Mail Stop 4720  
Washington, D.C. 20549

Attn: Suzanne Hayes  
Jeffrey Gabor

Re: **Aclaris Therapeutics, Inc.**  
**Registration Statement on Form S-3**  
**File No. 333-214384**

**Acceleration Request**

**Requested Date: Monday, November 14, 2016**  
**Requested Time: 4:00 P.M. Eastern Standard Time**

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant (the "**Registrant**") hereby requests that the Securities and Exchange Commission (the "**Commission**") take appropriate action to cause the above-referenced Registration Statement on Form S-3 (File No. 333-214384) (the "**Registration Statement**") to become effective on November 14, 2016, at 4:00 p.m. Eastern Standard Time, or as soon thereafter as is practicable, or at such later time as the Registrant may orally request via telephone call to the staff (the "**Staff**"). This request for acceleration is subject, however, to your receiving a telephone call prior to such time from Cooley LLP, counsel to the Registrant, confirming this request. The Registrant hereby authorizes each of Brian Leaf, Mark Ballantyne and Katie Kazem of Cooley LLP to make such request on its behalf.

Once the Registration Statement has been declared effective, please orally confirm that event with Brian Leaf of Cooley LLP, counsel to the Registrant, at (703) 456-8053, or in his absence, either of Mark Ballantyne at (703) 456-8084 or Katie Kazem at (703) 456-8043.

*[Signature page follows]*

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Very truly yours,

Aclaris Therapeutics, Inc.

By: /s/ Frank Ruffo  
Frank Ruffo  
Chief Financial Officer

cc: Neal Walker, Aclaris Therapeutics, Inc.  
Brent B. Siler, Cooley LLP  
Divakar Gupta, Cooley LLP  
Brian F. Leaf, Cooley LLP

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