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VIA EDGAR

October 2, 2015

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

Attn: Mr. Jeffrey Riedler
Mr. John Krug
Mr. Preston Brewer

Re: **Aclaris Therapeutics, Inc.**
Registration Statement on Form S-1
File No. 333-206437

Acceleration Request

Requested Date: Tuesday, October 6, 2015
Requested Time: 4:00 P.M. Eastern Daylight 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-1 (File No. 333-206437) (the "**Registration Statement**") to become effective on October 6, 2015, at 4:00 p.m., Eastern Daylight Time, or as soon thereafter as is practicable, or at such later time as the Registrant or its counsel may orally request via telephone call to the staff (the "**Staff**").

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.

In connection with this request, the Registrant acknowledges that:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
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- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
 - the Registrant may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

Aclaris Therapeutics, Inc.

By: /s/ Kamil Ali-Jackson

Kamil Ali-Jackson
Chief Legal Officer

cc: Neal Walker, Aclaris Therapeutics, Inc.
Brent B. Siler, Cooley LLP
Divakar Gupta, Cooley LLP
Brian F. Leaf, Cooley LLP
Peter N. Handrinis, Latham & Watkins LLP
Nathan Ajiashvili, Latham & Watkins LLP