Leap Therapeutics, Inc. 47 Thorndike Street Suite B1-1 Cambridge, MA 02141 (617) 714-0360

December 14, 2017

Via EDGAR and FedEx

United States Securities and Exchange Commission Division of Corporate Finance 100 F Street, NE Washington, D.C. 20549

RE: Leap Therapeutics, Inc.

Registration Statement on Form S-3

File No. 333-221968

Ladies and Gentlemen:

In accordance with Rule 461 promulgated under the Securities Act of 1933, as amended (the "Securities Act"), the undersigned respectfully requests that the effective date for the Registration Statement referred to above be accelerated so that it will be declared effective at 4:00 p.m., Washington, D.C. time, on December 15, 2017, or as soon thereafter as is practicable. Once the Registration Statement has been declared effective, please orally confirm that event with our counsel, Morgan, Lewis & Bockius LLP, by calling Julio E. Vega at (617) 951-8901.

Very truly yours,

LEAP THERAPEUTICS, INC.

/s/ Christopher K. Mirabelli, Ph.D.

Name: Christopher K. Mirabelli, Ph.D.
Title: President and Chief Executive Officer

cc: Chris Edwards, U.S. Securities and Exchange Commission Julio E. Vega, Morgan, Lewis & Bockius LLP