CALCIMEDICA, INC.
505 Coast Boulevard South, Suite 307
La Jolla, CA 92037

February 7, 2024

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attn: Mr. Tyler Howes

RE: **CalciMedica, Inc.**
Registration Statement on Form S-3
File No. 333-276793

Ladies and Gentlemen:

CalciMedica, Inc. (the "***Registrant***") hereby requests that the U.S. Securities and Exchange Commission (the "***Commission***") take appropriate action to cause the above-referenced Registration Statement on Form S-3 to become effective on February 9, 2024, at 4:00 p.m., Eastern 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 of the Commission. The Registrant hereby authorizes Carlos Ramirez of Cooley LLP and Brittany Wightman of Cooley LLP, counsel to the Registrant, to make such request on its behalf.

Once the Registration Statement has been declared effective, please orally confirm that event with Carlos Ramirez at (858) 550-6157, or in his absence, Brittany Wightman of Cooley LLP at (858) 550-6132.

Very truly yours,

CALCIMEDICA, INC.

By: /s/ A. Rachel Leheny
Name: A. Rachel Leheny, Ph.D.
Title: Chief Executive Officer

cc: John Dunn, CalciMedica, Inc.
Carlos Ramirez, Cooley LLP
Brittany Wightman, Cooley LLP