

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On January 31, 2018, Robert J. Hugin notified The Medicines Company (the “Company”) of his decision to resign from the Board of Directors (the “Board”) of the Company effective February 5, 2018. Mr. Hugin had been a member of the Board since 2003. Mr. Hugin’s decision to resign was not due to any disagreement with the Company on any matter relating to the Company’s operations, policies or practices.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

THE MEDICINES COMPANY

Date: February 6, 2018

By: /s/ Stephen M. Rodin

Stephen M. Rodin

Executive Vice President and General Counsel