To Whom it May Concern

I am writing to you to express my overwhelming support for Bill LD 49 "An Act to Improve Science and Engineering Education for Maine’s Students".

Below is my opinion based on my experiences while working with students and teachers and implementing the Next Generation Science Standards in Maine schools.

I strongly support this bill along with Maine science teachers and the Board of the Maine Science Teachers Association. We need these standards as they are a modernized equivalent to the last set of standards written in the late 1990's. As you know, an abundance of new scientific information has been published since the late 90's, and also new research elucidating how students learn scientific principles has come forth. With this new knowledge, our country and state needs to modernize the scientific standards in grades K-12 to keep up and remain current.

I have a Ph.D. in Molecular and Cellular Biology and a strong background in science teaching pedagogy and STEM curriculum development. I've been a K-16 science, technology, engineering and math (STEM) educator for more than 25 years. I work in school districts throughout Southern Maine and have incorporated the new Next Generation Science Standards (NGSS) in every STEM lesson plan and student activity since the release of the standards in 2013. I have interacted with hundreds of teachers around the state, college professors, and businesses like IDEXX Laboratories, Jackson Laboratories and Texas Instruments. There is overwhelming support for these standards among ALL. If you click the NGSS link, you will see a highly interactive resource that helps teachers, curriculum developers, professors, parents, and even students.

The NGSS standards are used in a variety of ways to support classroom learning but most importantly, they are used as a guidepost for educators to determine what to teach (i.e. the level and depth for each grade) and when (i.e. when is a student capable). The NGSS standards are a comprehensive, age-appropriate, learning progression for Physical Science, Life Science, Earth/Space Science, and include the practices of science and engineering and cross-cutting concepts. The process used to generate the standards was a tremendous effort by teachers, scientists, and engineers from educational institutions and businesses from around the country, with ample time for public comments and recommendations.

In summary, adopting the Next Generation Science Standards in Maine is imperative for all students as they develop an understanding of how the modern world works and for our state are we prepare the workforce for jobs in STEM fields.
Sincerely,

Debbie Landry

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Deborah Landry, Ph.D.
Executive Director, iXplore STEM
Adjunct Professor,

University of New England, Biddeford, ME

Center for Excellence in the Neurosciences