

# Use of Radioactive Material in Undergraduate Laboratory Exercises

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We have had a departmental radiation license for over 25 years, and have used this to develop a variety of laboratory exercises undergraduates. We introduce students to working with radioactivity at the sophomore level, with a simple uptake and incorporation experiment using  $^{35}\text{S}$ . This is expanded in upper level courses to include examination of protein synthesis in the presence of antibiotics, induction of heat shock proteins, hormone assays, use of pulse-chase techniques and autoradiography. Examples of specific exercises will be presented, with results and analyses, as well as information on what is involved in applying for a license, along with the required reporting and safety regulations.

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## Mission, Review Process & Disclaimer

The Association for Biology Laboratory Education (ABLE) was founded in 1979 to promote information exchange among university and college educators actively concerned with teaching biology in a laboratory setting. The focus of ABLE is to improve the undergraduate biology laboratory experience by promoting the development and dissemination of interesting, innovative, and reliable laboratory exercises. For more information about ABLE, please visit <http://www.ableweb.org/>.

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