The North American Network of Science Labs Online (NANSLO) represents an international collaborative partnership between postsecondary institutions in the U.S. and Canada. NANSLO partners will develop online science course content for the critical gatekeeper courses of physics, biology, and chemistry. This 15-month project, which began April 15, 2011, is funded through a grant from the Next Generation Learning Challenges.

NANSLO will result in courseware available for online use by any institution world-wide via Creative Commons Licensing. The high-quality courseware will be modular in design allowing for customization and localization. Modules will integrate learner-centered and immersive web-based labs using software, live video and robotic manipulation of remote lab equipment.

NANSLO courseware starts with a tested foundation of openly available material provided by our partner in British Columbia, BCcampus. The foundational courses will be reviewed and expanded upon by expert discipline panels recruited from each partner institution. Panel members will collaborate with course designers to develop a robust and transferable first semester course in physics, biology and chemistry.

In addition to providing the foundation for NANSLO’s courseware, BCcampus will extend the use of its Remote Web-based Science Laboratory (RWSL) to U.S. NANSLO partners. RWSL makes use of live video and robotics that facilitate the remote manipulation of lab equipment. The robotics and live video allows students the opportunity to engage in actual science experiments in fully equipped labs 24 hours a day from rural and urban settings alike.

This international project has the potential to deepen student engagement in online science courses and enable more students, especially those who find it difficult to take classes on campus, to persist in science-related programs. The project will expand access and address persistence barriers by offering quality alternatives to gatekeeper science courses offered in traditional classroom settings.

Members and Participation
Western Interstate Commission for Higher Education (WICHE): WICHE serves as the coordinating partner and fiscal agent for NANSLO.

Colorado Community College System (CCCS): CCCS is comprised of 13 community colleges, which will pilot NANSLO during the grant period. Faculty from CCCS participate as courseware developers and discipline panel members.

BCcampus: BCcampus is a consortium of 25 post-secondary institutions located in British Columbia (BC), Canada. BCcampus member institutions contributing to curriculum development, RWSL leadership and technical architecture include North Island College and College of the Rockies. Discipline panel members come from the University of British Columbia, Langara College, Capilano University, and Kwantlen Polytechnic University.

Satellite Campuses: In addition, the Colorado School of Mines, the University of Wyoming, Montana State University, MSU-Great Falls College of Technology and Laramie County Community College (WY) join the consortium as members of NANSLO’s advisory board and discipline panels. These campuses represent potential sites for expansion of NANSLO beyond the initial grant period.

Project Outcomes
This project will result in:

- Open-license first semester introductory courses in biology, chemistry, and physics using RWSL labs
- Environmental scan of RWSL labs in U.S. and Canada
- How-to Manual for creation and use of RWSL labs
- Sustainability Plan and Template for Expanding NANSLO to include other partners

About our Funder
The Next Generation Learning Challenges (NGLC): NGLC is a collaborative, multi-year initiative focused on identifying and scaling technology-enabled approaches to dramatically improve college readiness and completion, especially for low-income young adults. NANSLO was one of 29 projects funded in the first wave in April 2011. See http://nextgenlearning.org/

For more information about NANSLO, contact
Catherine Weldon, NANSLO Project Coordinator
Western Interstate Commission for Higher Education
3035 Center Green Drive, Suite 200, Boulder, CO 80301
cweldon@wiche.edu • 303.541.0220
www.wiche.edu/nanslo