The Institute for Systems Biology (ISB) is a non-profit center for biomedical research located in the South Lake Union neighborhood of Seattle. Comprised of 250 faculty and staff, ISB is pioneering new approaches of cross-disciplinary science. ISB also has a core commitment to supporting K-12 science education: By applying a systems approach to education, ISB’s partnerships include all teachers and, as a result, all students across a school system.

**ROLES**

**STEM Expert**
Scientists have been key to ISB’s partnership with Seattle Public Schools. As the district adopted new science instructional materials, scientists partnered with teacher leaders to facilitate professional development. The teacher leaders contributed expertise as related to instructional strategies, and the scientists as related to science content.

**Resource**
Despite being a non-profit, ISB has supported the funding of districts’ science education programs, mainly by way of collaborative grant writing. For the featured partnership, ISB President, Dr. Leroy Hood led the development of National Science Foundation grants amounting $7.9 million. Dr. Hood and his wife, Valerie Logan led community fundraising efforts to match the NSF grants at an amount upwards of $4.5 million.

**Advocate**
As part of its systems approach to education, ISB not only addresses teachers, but also district leadership. Since he moved to Seattle in 1992, Dr. Hood has met with the past 7 superintendents of Seattle Public Schools. In each case, Dr. Hood conveyed ISB’s commitment to the partnership. ISB recognizes that changes in education impact the community. The Family Science program (see Timeline) introduced families to both contemporary science and contemporary science education.

**RESULTS**

ISB includes evaluation and research as a component to all its education partnerships. These graphs depict results of a 5-year NSF-funded research project of one of ISB’s professional development models. Middle school science achievement in Seattle Public Schools made significant advancements in relation to the state average and comparison schools in Washington State. Most excitingly, Seattle’s high poverty schools made the greatest gains, >36% over 5 years, closing the achievement gap to the state average.

For more information about ISB’s education programs contact education@isbscience.org.