Living Laboratory: Data collection as an educational experience and professional development opportunity

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The Model

- Goal is to lower the barrier between scientists and the public
- All research happens in an exhibit
  - Study topic matched to exhibit content
- Visitor education is through participation, not lecture
- Non-participants still able to be involved
- Limitations:
  - Studies must be short
  - Visitor experience considerations
  - Study methods may create discomfort (e.g., blood draw)
  - Study topic may not be a good match with educational mission

Mutual Benefits

- Researchers
  - Rapid data collection
  - Eager participant pool
  - No scheduling costs
  - Integrated with Museum experience
  - Outreach and dissemination
    - Directly reaching a wide audience as part of data collection
    - Continued presence in the museum
  - Unique professional development opportunity for the next generation of scientists
    - Training from Museum educators on science communication
    - Weekly practice

- Visitors
  - Opportunity to be a part of science as it happens
  - Unique way to learn about how research is done
  - Ability to interact with an active researcher
    - One-on-few conversations
    - Public can ask questions and scientists can respond
  - Can observe without participating
  - Can request educational demos when unable to participate
    - Do not meeting inclusion criteria
    - Minor without a legal guardian

- Museum staff and volunteers
  - Learn about current science
  - Opportunity to help advance science

At the Museum of Science

- Developed in 2005
- Initially aimed at child development research
- National project to disseminate model
  - Resources and information available at: livinglab.org
  - NSF award number 1113648
- Expanded at MoS to a broader content area in 2013 with the opening of the Hall of Human Life
  - Balance
  - Adolescent and adult development
  - Oral microbiome
    - Dr. Eva Helmerhorst, BU Henry M. Goldman School of Dental Medicine, Molecular & Cell Biology
- Learn more at www.mos.org/living-laboratory