# Northwestern

## **Managing Water: New Tools for Sustainable Development**

#### AAAS Envisioning Tomorrow's Earth, Seattle WA 2020

#### Resources

#### Sera L. Young: "A Simple Indicator of Global Household Water Experiences"

- Household Water Insecurity Experiences project: hwise.org, hwise-rcn.org
- Personal: <u>serayoung.org</u>
- Twitter: @profserayoung
- Contact: <a href="mailto:sera.young@northwestern.edu">sera.young@northwestern.edu</a>
- Publications:
  - o Protocol for scale development
  - o Validation and final scale
  - o <u>One-pager policy brief</u>
  - o Primer on scale development
  - HWISE field implementation manual
  - o Household water insecurity and infant feeding
  - o Household water insecurity and food insecurity

### Julius B. Lucks: "Rapid and Low-Cost Synthetic Biology Technologies for Monitoring Water Quality in the Field"

- The Lucks Laboratory at Northwestern University: luckslab.org
- Twitter: <u>@LucksLab</u>
- Contact: jblucks@northwestern.edu
- Videos:
  - o <u>"Searching through biology to build our toolbox</u>" Luyi Cheng (<u>@luyi\_cheng</u>, PhD Candidate, Lucks Lab)
  - Publications (all ACS Synthetic Biology):
    - o <u>"Point-of-use detection of environmental fluoride via a cell-free riboswitch-based biosensor."</u>
    - o <u>"Design of a transcriptional biosensor for the portable, on-demand detection of cyanuric acid."</u>
    - o <u>"PLANT-Dx: A molecular diagnostic for point of use detection of plant pathogens."</u>
- Pre-prints (BioRxiv):
  - o "Rapid, low-cost detection of water contaminants using regulated in vitro transcription"
  - o "Design and optimization of a cell-free atrazine biosensor"

#### Claire Chase: "Policy Framework to Promote Action Towards Water Security"

- Contact: <u>cchase@worldbank.org</u>
- Twitter: <u>@clairelchase</u>
- Key publications:
  - o Achieving water-related SDGs
  - o Water and nutrition framework