



KY MULTI-SCALE MANUFACTURING AND NANO INTEGRATION NODE

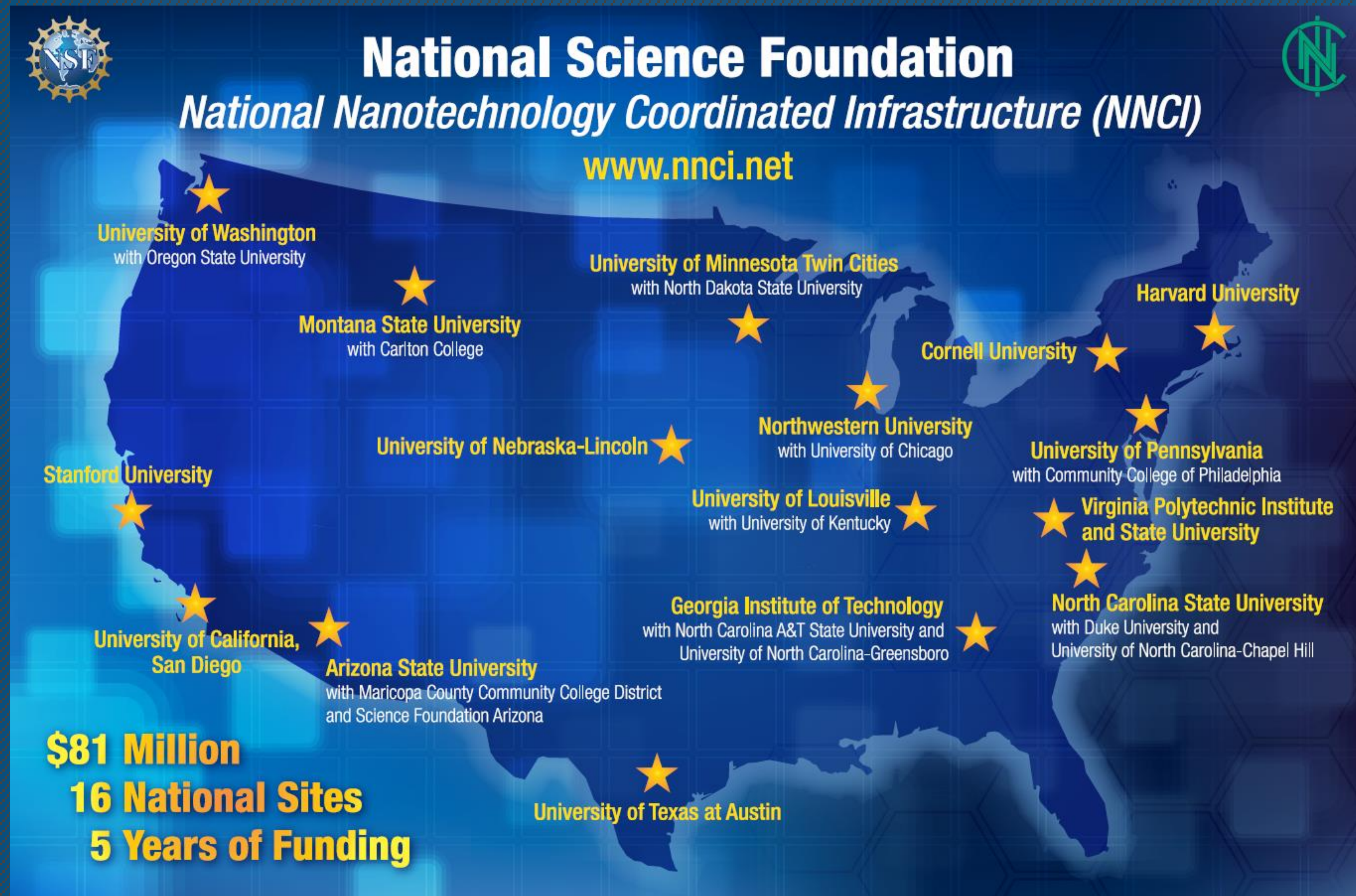
(NSF 15-519, Awardee: University of Louisville, PI: Kevin Walsh, Award #:1542164)



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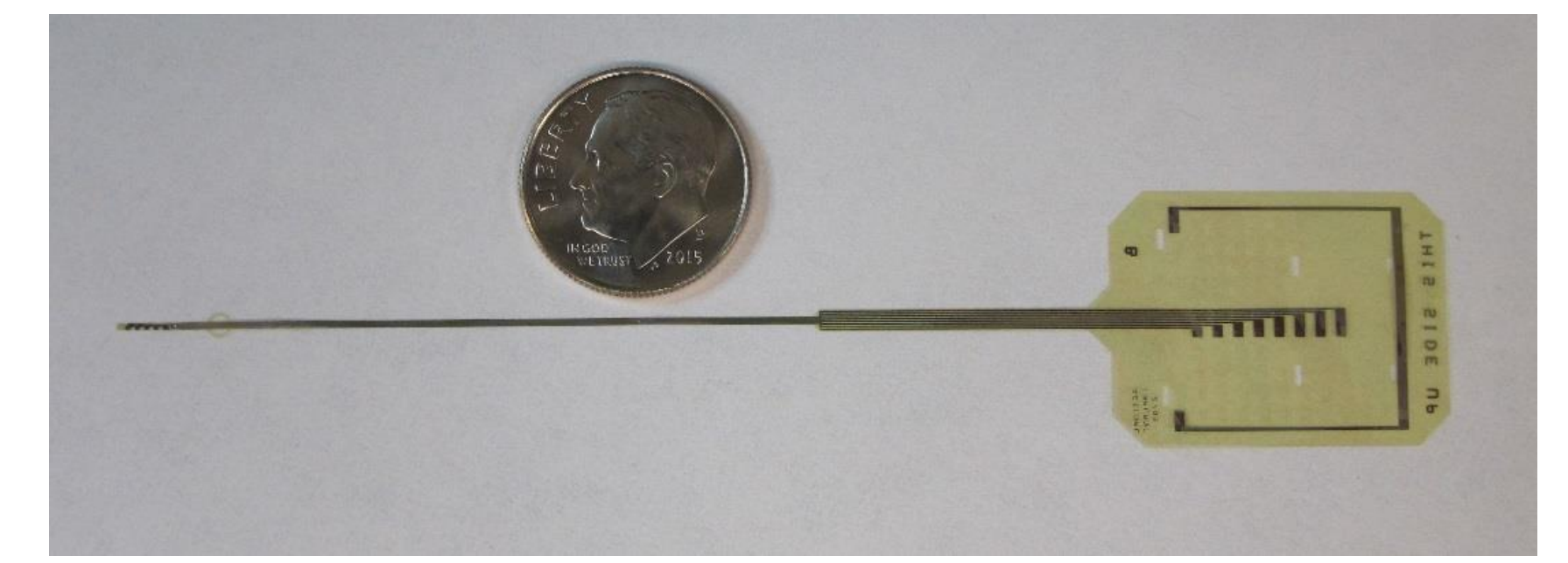
KY MMNIN

¹University of Louisville, ²University of Kentucky

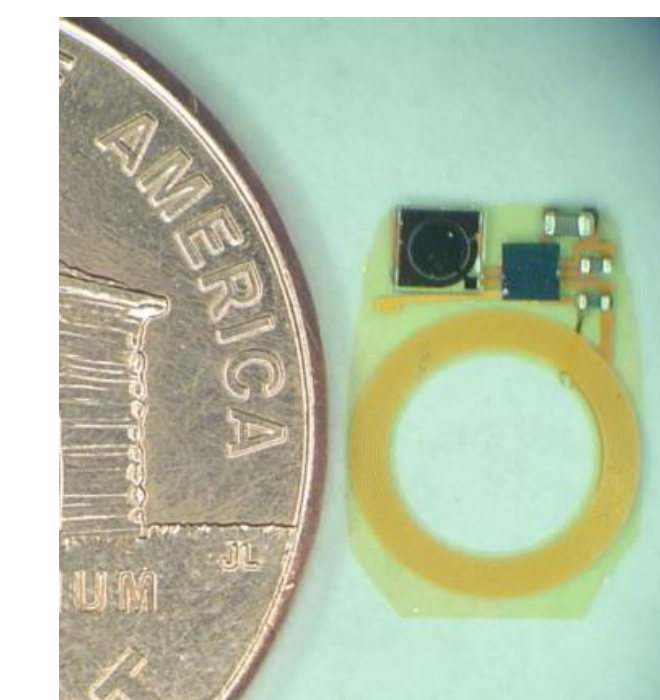


YR 1 ACCOMPLISHMENTS

- ✓ Hired 3 Endowed Chairs in Advanced Manufacturing and Nano-integration
- ✓ Implemented FOM for facility management
- ✓ Hired 2 nano-coordinators and 2 integration engineers
- ✓ Developed an on-line Equipment Data Base
- ✓ Made equipment purchases, established and met with our Advisory Board
- ✓ Developed multi-scale demonstration projects
- ✓ Increased external usage of our cores
- ✓ Set up the KY MMNIN website www.kymultiscale.com

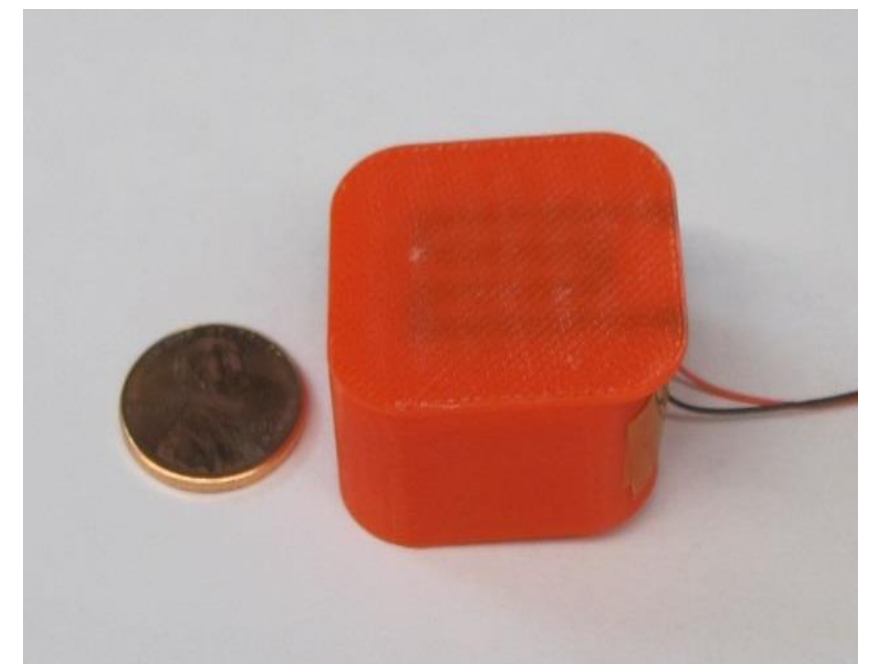


Retina stimulation electrode



Wirelessly powered pressure sensor for glaucoma management

3D printed sensor with integrated sensing element



- ✓ Awarded a complementary NSF "IMPACT" REU in advanced manufacturing (AM) + 2 exchange students from the Japanese NIMS
- ✓ www.louisville.edu/reu



MULTI-SCALE MANUFACTURING & CHARACTERIZATION FACILITIES

Micro Nano Fabrication

[UL Micro/Nano Technology Center \(MNTC\)](#)

[UK Center for Nanoscale Science and Engineering \(CENSE\)](#)

Characterization, Metrology and Imaging

[UL Huson Nanotechnology Core Facility \(HNCF\)](#)

[UK Electron Microscopy Center \(EMC\)](#)

Advanced Materials & Energy

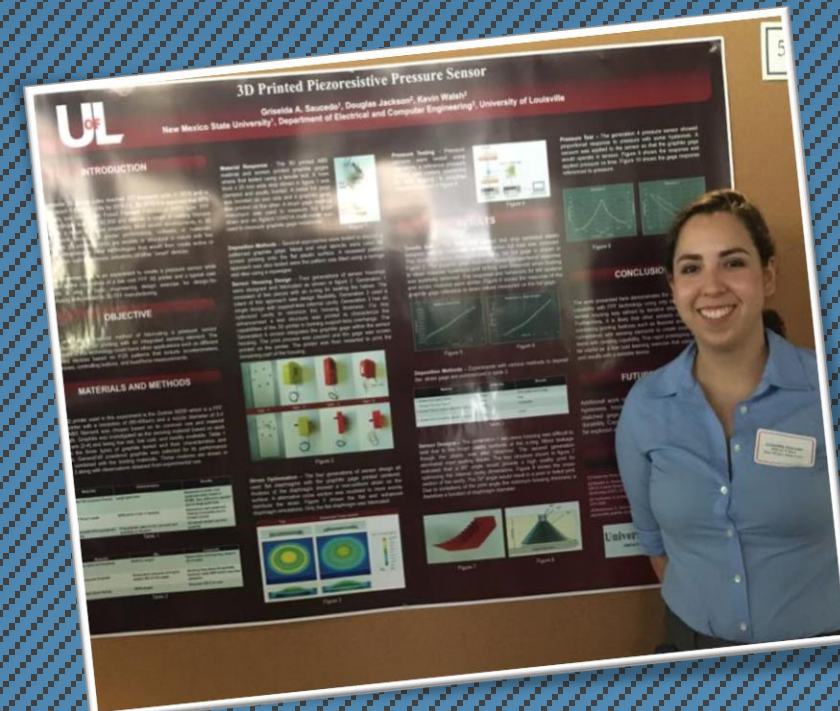
[UL Conn Center for Renewable Energy Research \(CCRER\)](#)

[UK Center for Applied Energy Research \(CAER\)](#)

[UK Center for Advanced Materials \(CAM\)](#)

Additive Manufacturing and 3D Printing

[UL Rapid Prototyping Center \(RPC\)](#)



KY Multi-scale Manufacturing and Nano Integration Node

