

# NSF-CREST CNRE

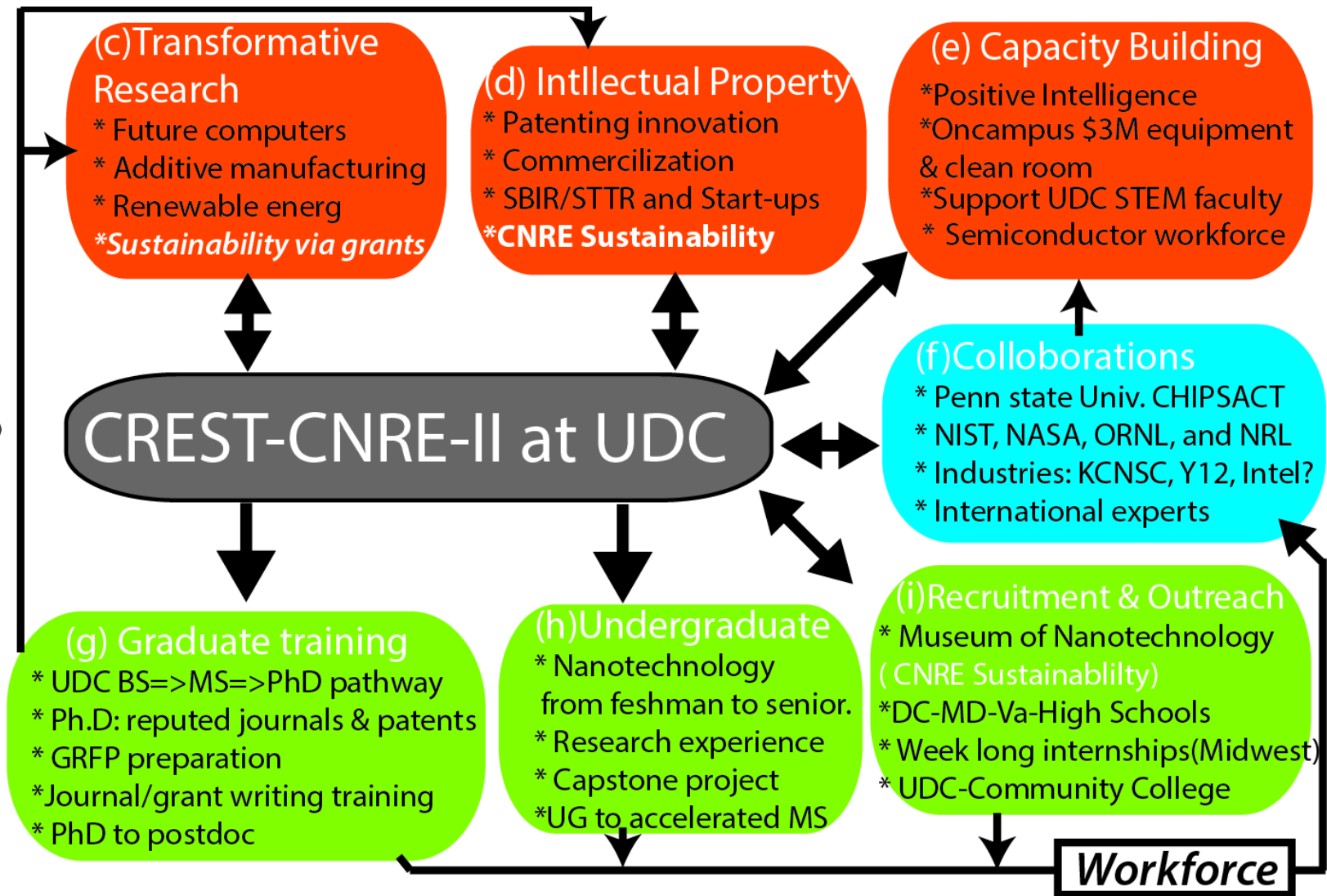
## transforming UDC into 21<sup>st</sup> Century Innovation driven HBCU

Pawan Tyagi, PhD

PI and Professor in Mechanical Engineering Department



Where is spending and institutional efficiency?



# Slow Funding Expenditures

- August 2023(5<sup>th</sup> year start): 50% Unspent funds. (Applied for Phase-2)
- **Reasons:**
- **Extremely slow reprogramming.**
- Student support in salary category(Unable to pay >19K/students and tuition)
- COVID-19: Slow staff hiring.
- Limited P- card spending limit.
- PO ordering slow (several months/order)

# Four meetings with UDC president



# Solution

- CREST Center taken as a case study for making a highest performing Center at UDC.
- President appointed –a cabinet person to monitor spending progress.
- Liaison weekly started meeting to take note of efforts and hurdles.
- Position of Associate Dean of Research in School of Engineering created.
- OSP brought a high performing administrator (Salome)

# Impact

- PI only meet liaison and inform area for helps. Liaison report to president every Friday what he accomplished.
- Provost office –approving spending limit increase with credit card. CREST Center was exempted from regular institutional restrictions.
- OSP: Helped with reprogramming funds based on permissions.
- Much awaited IDC was directed for repairs.
- Procurement : Completing multiple PO preparation efficiently.
- Finance support (Most efficient Unit)
- HR-supported staff and postdoc salary and continuation.

# Conclusion

- CNRE challenged UDC to do business differently and efficiently.
- Higher administration mediation is necessary for UDC like institutions growing from teaching to research focus institutions.
- PI and Co-PI should be prepared to become activists
- Proud to produce results and content with in-progress institutional transformation

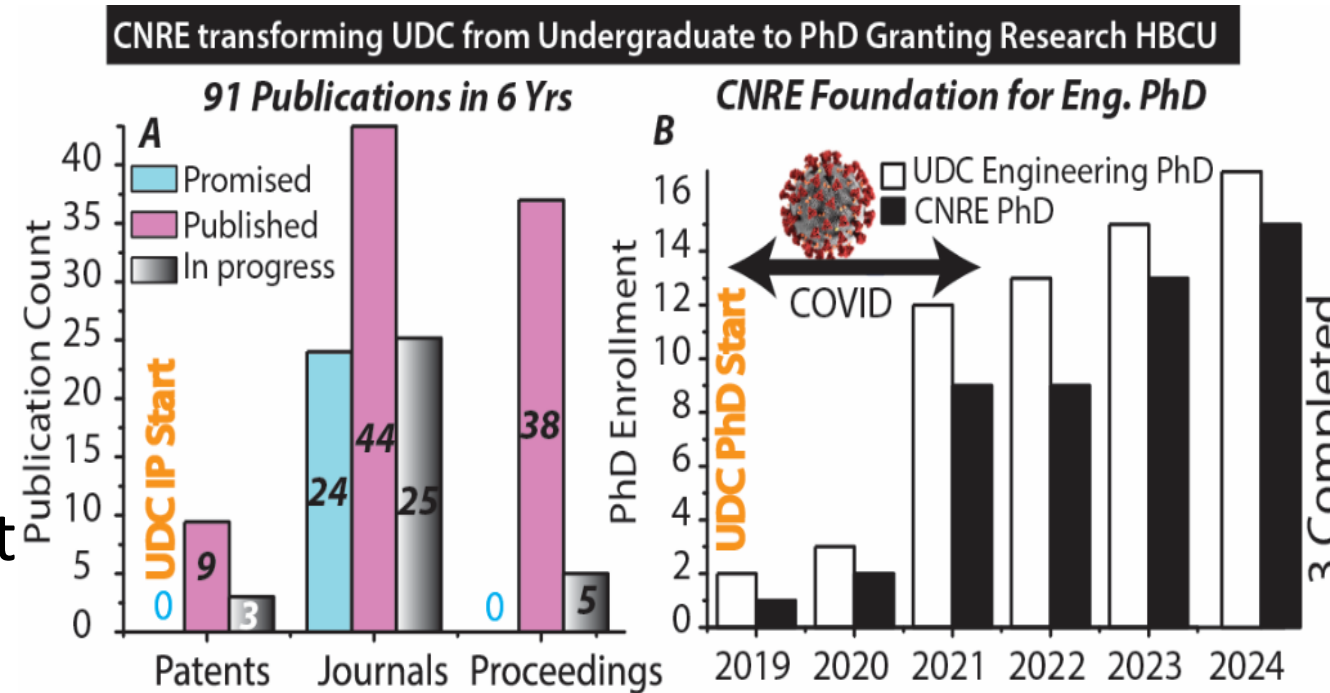
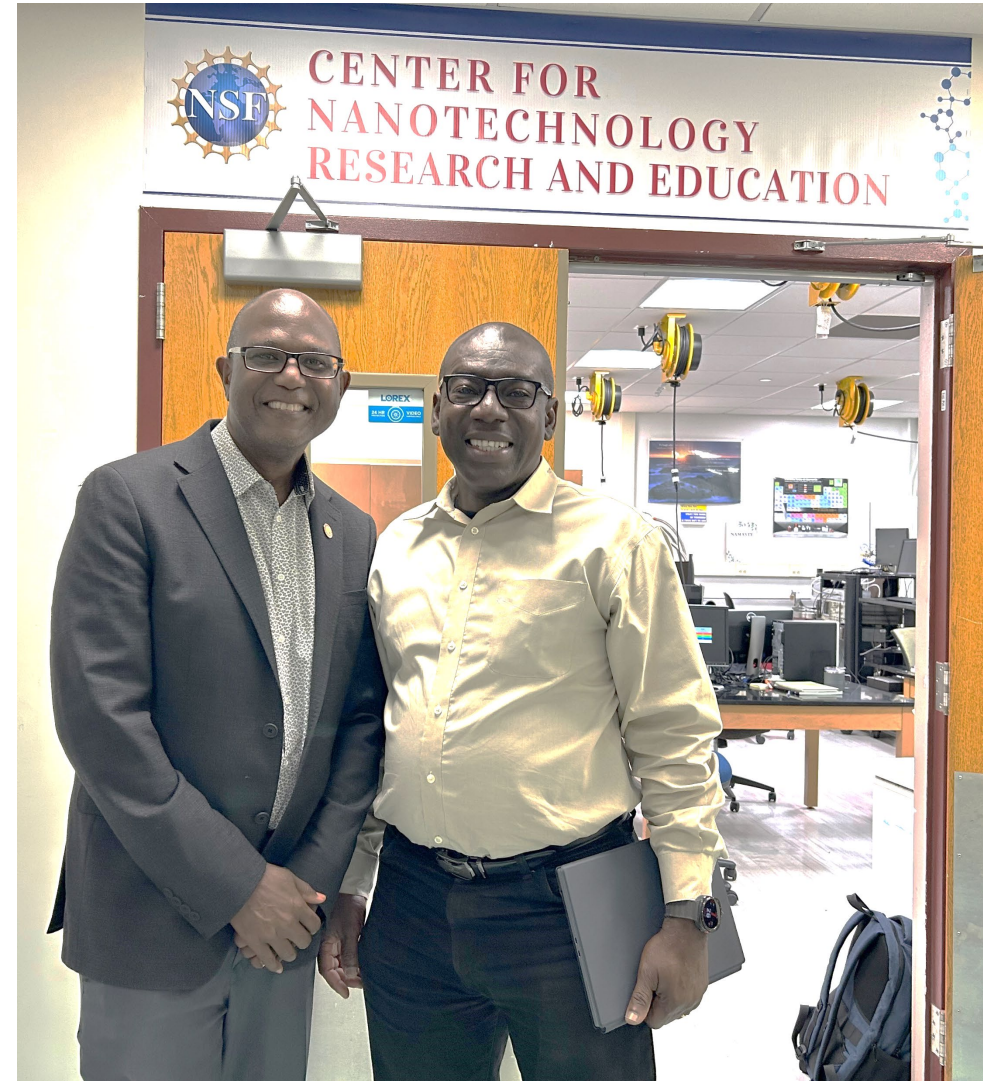


Fig.2(a) CNRE publications and (b) PhD students.

# CNRE Sustainability and growth

- Institutionalization of CNRE service for Education to CC to PhD
- Tech transfer related funding-Quantum devices
- Museum of Nanotechnology –operation.
- Starting Foundation support-UDC pride and transformer.
- Licensing Patented(pending technology)



# TTP

## **NEW: NSF Technology To Practice (TTP) Program**

This brand-new initiative builds on the PFI program to support translational science and commercialization:

*Explore (TTP-E):* Aimed at PIs with an existing research grant, these supplements enable them to extend their work to integrate use-inspired research or early-stage translational work. Up to \$600,000 for 24 months and accepted on a rolling basis in coordination with your existing Program Officer.

*Translate (TTP-T):* A new award for PIs starting with a use-inspired research/early translation question aimed at maturing ideas, iterating, scaling, improving accessibility, and lowering the barriers to effective translation. Partnerships are encouraged, and grantees are required to take I-Corps during this grant. Up to \$1,200,000 for 36 months, due September 16, 2025, then again in January and May 2026.

*Partner (TTP-P):* A new award that supports translational efforts that require partnerships to ensure technology development and deployment. Partnerships can be with the private sector, non-profits, government, or a variety of entities, but applicants are encouraged to partner beyond higher education. Grantees are required to take I-Corps during this grant. Up to \$2,000,000 for 48 months, due September 16, 2025, then again in January and May 2026.