

PATHS-UP

Precise Advanced Technologies and
Health Systems for Underserved Populations

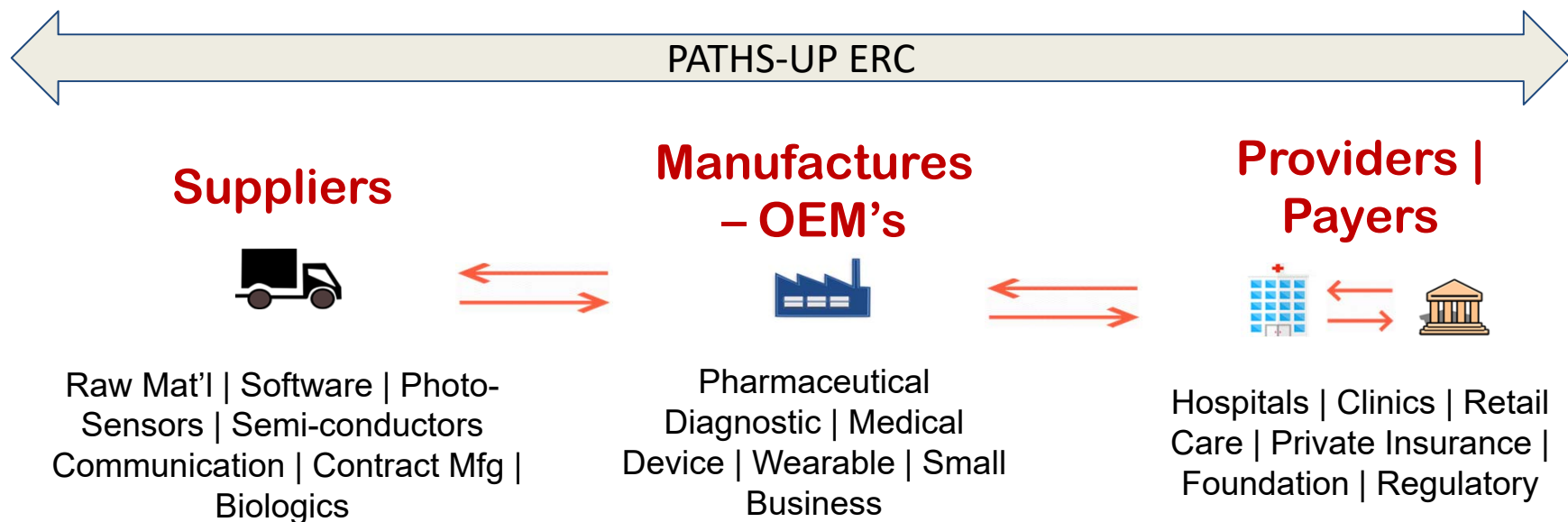


Chris Finberg
Innovation Director
IAB Management Summit 2022

Overall Goal & Objectives Innovation Ecosystem



PATHS-UP – Members' Position in Value Chain



Step 1A: Who to contact

Active Prospects in Value Chain

PATHS-UP ERC

Suppliers
(Goal 10 members – 7 existing)



Raw Mat'l | Software | Photo-Sensors | Semi-conductors
Communication | Contract Mfg | Biologics

Manufactures – OEM's
(Goal 10 members – 9 existing)

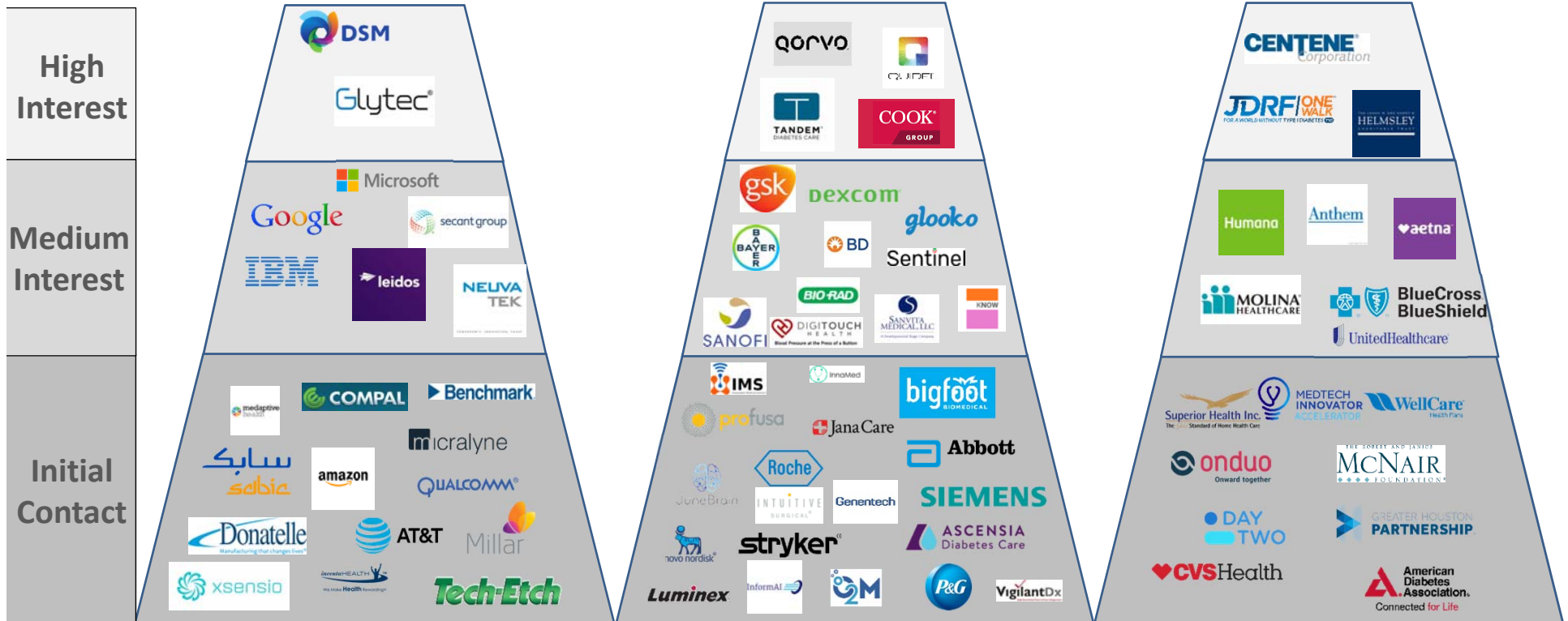


Pharmaceutical
Diagnostic | Medical Device | Wearable | Small

Providers | Payers
(Goal 5 members – 1 existing)



Hospitals | Clinics | Retail Care
Private Insurance | Foundation



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Recruiting Ideas – Keep Pipeline Full

Basic Blocking and Tackling – Hit rate will be in single digits

- Personal experience: 400 companies since Jan 2019 – 4.5% joined Center
 - Want 30 companies to join @ 5% close rate = 600 companies
- Target list of companies – Big's are known
- Medium companies are most likely at conferences
 - Old conference company lists - most are still posted from 2019
 - Speakers at conferences/tradeshows
- Small companies – look at SBIR/STTR, NIH, SECO – awardees past 3 years
- Social Media:
 - LinkedIn Value proposition – Match Tech to need
 - Send to 20 prospects – effective if 20%-40% responds

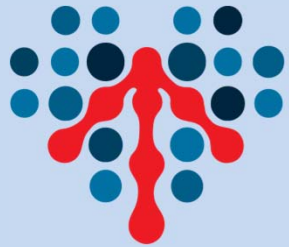
Recruiting Ideas – Target Lists

Need “human” contact. Covid is a major challenge – F2F is best.

- Faculty help
- Tech alumni at target companies
- Use LinkedIn network to see who is the best person in your network
 - Who can give personal introduction to the CEO or the CFO - They are the decision makers.
 - Need a good introduction to their executive team
 - Need to coach the person who gives the intro.

Example of a proposed simple message for an introduction:

*“This team at Texas A&M is on to something. They received a \$40M National Science Foundation grant to build next generation monitoring platform to lower chronic care cost and improve patient outcomes. **They could help Livongo move beyond diabetes and give Livongo a unique protectable IP position long term. Livongo should check out what they are doing.**”*



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Value Proposition, Research, & Impact

- **Value Proposition... a “Fat” statement...**
 - Different meaning to NSF/Grant, Industry, Stakeholders
 - ILO role – What is VP to Industry
 - How to show research IS creating value...and impact

- **VP evolves over time at a ERC**
 - Global/Core VP not likely to change
 - Influences on internal/external research findings
 - Influences on new industry technologies
 - Influence from the Boards
 - How does that feedback to research projects

Step 1B: What are you selling

The Grand Challenge

Every 30 seconds one American will be diagnosed with diabetes, and another will suffer a coronary event.



These chronic diseases represent a disproportionately larger burden in underserved communities across the US and the world due to higher prevalence and reduced access to care

A Response to the Grand Challenge: PATHS-UP Engineering Research Center

Lab in your Palm



Lab on a Wrist



Vision

To change the paradigm for the health of underserved populations by developing revolutionary and cost-effective technologies and systems at the point-of-care (POC).

Mission

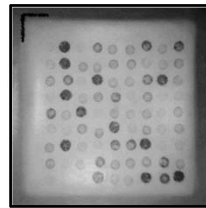
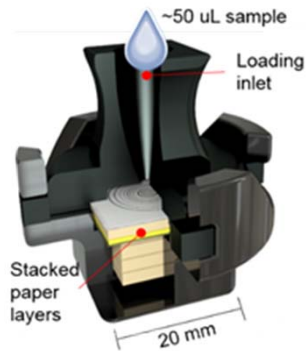
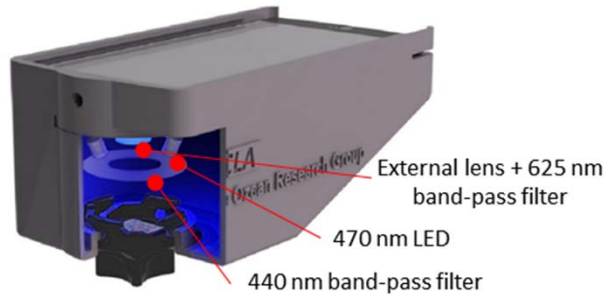
- 1) To engineer transformative, robust, and affordable, technologies and systems to improve healthcare access, enhance the quality of service and life, and reduce the cost of healthcare in underserved populations.
- 2) To recruit and educate a diverse group of scientists and engineers who are ready to lead the future in developing enabling technologies to improve health in underserved communities

Impact

Bringing affordable point-of-care healthcare technologies to urban and rural communities that lack access to care.

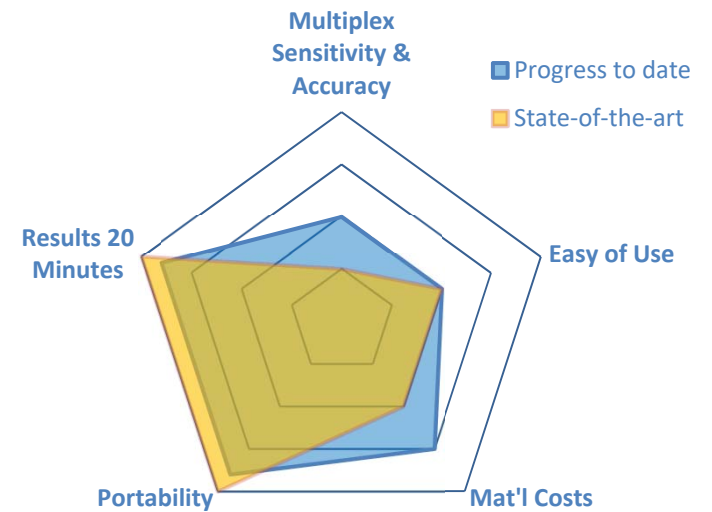


Example of Sub-System Value Proposition for Myocardial Infarction Point of Care Vertical Flow Assay Platform



Value Proposition: Create IP, proof of & validating concepts through Sub-Systems in real world environment towards field usable point of care device to determine MI with finger prick blood - Time equals heart damage

Technology Goals vs Existing



Technology Readiness Level (TRL)

TRL 3.2

Competition

None that are multiplexed with our proposed biomarkers

Single biomarker or other biomarker systems
 Abbott I-Stat
 Roche Cobas h232
 Phillips Minicare I-20

Unique Core Technology

Paper Based Multiplex VFA (Biomarkers: Troponin (cTnI), Myoglobin, CK-MB, h-FABP)

AI Imaging/Deep Learning

Use of low cost imaging with case/platform (Fluorescence)

Key Challenges/Risks

Detection of Troponin at clinical low limit level

Multiplex across broad concentrations

Sensitivity & Specificity of at least 3 biomarkers in multiplex assay

Tech Transfer Status

(2) Patents: CRP & Lyme Assays

(1) Start-up (Hana Diagnostics)

(5) Publications

(3) Future Potential IP's

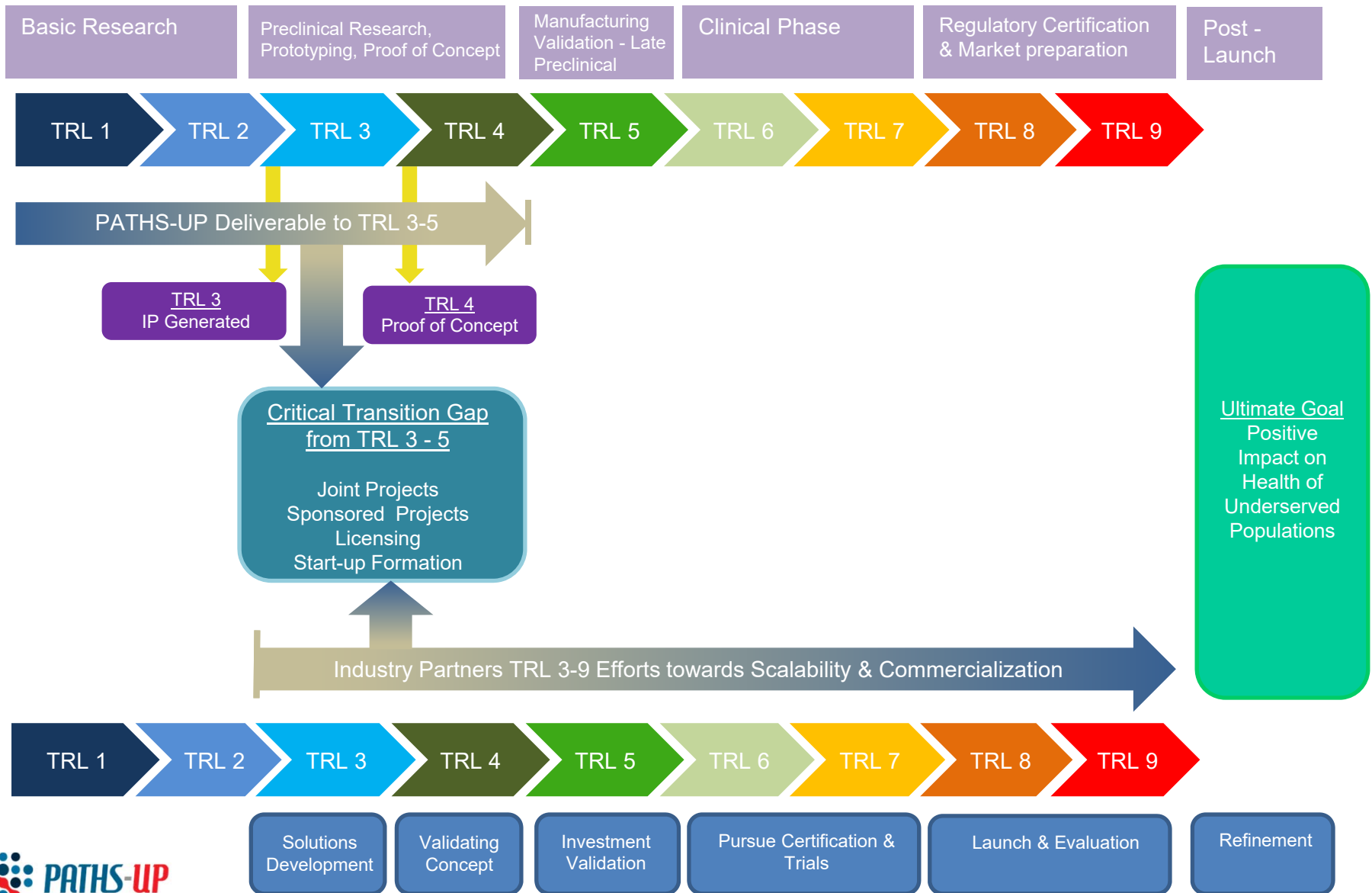
Next Steps

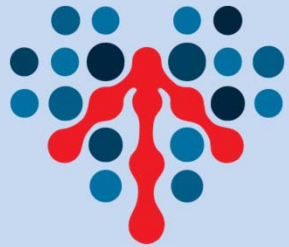
Optimized/Finalize MI assay on clinical serum samples

Achieve ~80 pg/mL Low limit of detection for Troponin

Conduct a clinical study with ~200 activated sensors (Q4 2021)

PATHS-UP Technology Readiness Level (TRL) for Transition to Industry





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Recruitment, Retention, and Relationship Building

- **Pre-Covid...travel, travel, travel**
 - In-Person meetings, conferences, tradeshow
 - Phone conversations, e-mail
 - “Old” Best Practices

- **Pandemic Times...no travel**
 - Zoom meetings, virtual conferences/tradeshow, digital communications
 - Not the greatest...missing key elements...Just trying to hang on
 - Positives & Negatives

- **Post Covid...Hybrid Model...**
 - In-Person...when to use it
 - Zoom Meetings...when to use it
 - Travel Restrictions...when to go to conferences, tradeshow, direct
 - Priorities – dependent on ERC life cycle? Sponsored Projects?
 - “New” Best Practices



Recruitment, Retention, and Relationship Building

- **Recruitment items**
 - Target lists – Who contact with correct VP message
 - Pitch deck or overview of Center
 - Website, 1-pagers, publications, intro e-mail
 - Balance between Zoom (Intro meetings) & F2F (deep dive)

- **Retention items**
 - Communications with “Champion” at company
 - F2F at least 1/year – get to know them
 - Need other contacts within organization (great resignation)
 - What is their roadmap/needs (Tech, workforce, other)
 - Help refine VP of Center to Company
 - More Engagement = High Retention

- **Early years 80% time at recruit – Then 80% retain in later years**
 - Prospecting never ends – will loose companies

Accomplishments & Impact Past 5 Years

