prevencio
Preventing the Preventable

Revolutionizing Blood Tests

for Cardiovascular Disease

POWERED BY AI

March 2020 031220RC
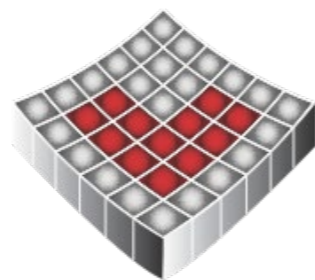
FORWARD-LOOKING STATEMENT

This presentation contains forward-looking statements

All such forward-looking statements are based upon management's present beliefs and expectations as they relate to future events, as well as current market conditions, and are subject to a number of risks and uncertainties. Various factors could cause actual results to differ materially from these statements including (without limitation) timing, clinical enrollment, clinical results, financing availability, product sales and marketing or efficacy of products, and other factors identified in this and related documents.

Although the company believes that the forward-looking statements contained herein are reasonable and based on information currently available, it can provide no assurances that the company's expectations are correct. All forward-looking statements are expressly qualified in their entirety by this cautionary statement, and the company makes no commitment, and disclaims any duty, to update or revise any forward-looking statements to reflect future events or changes in these expectations.
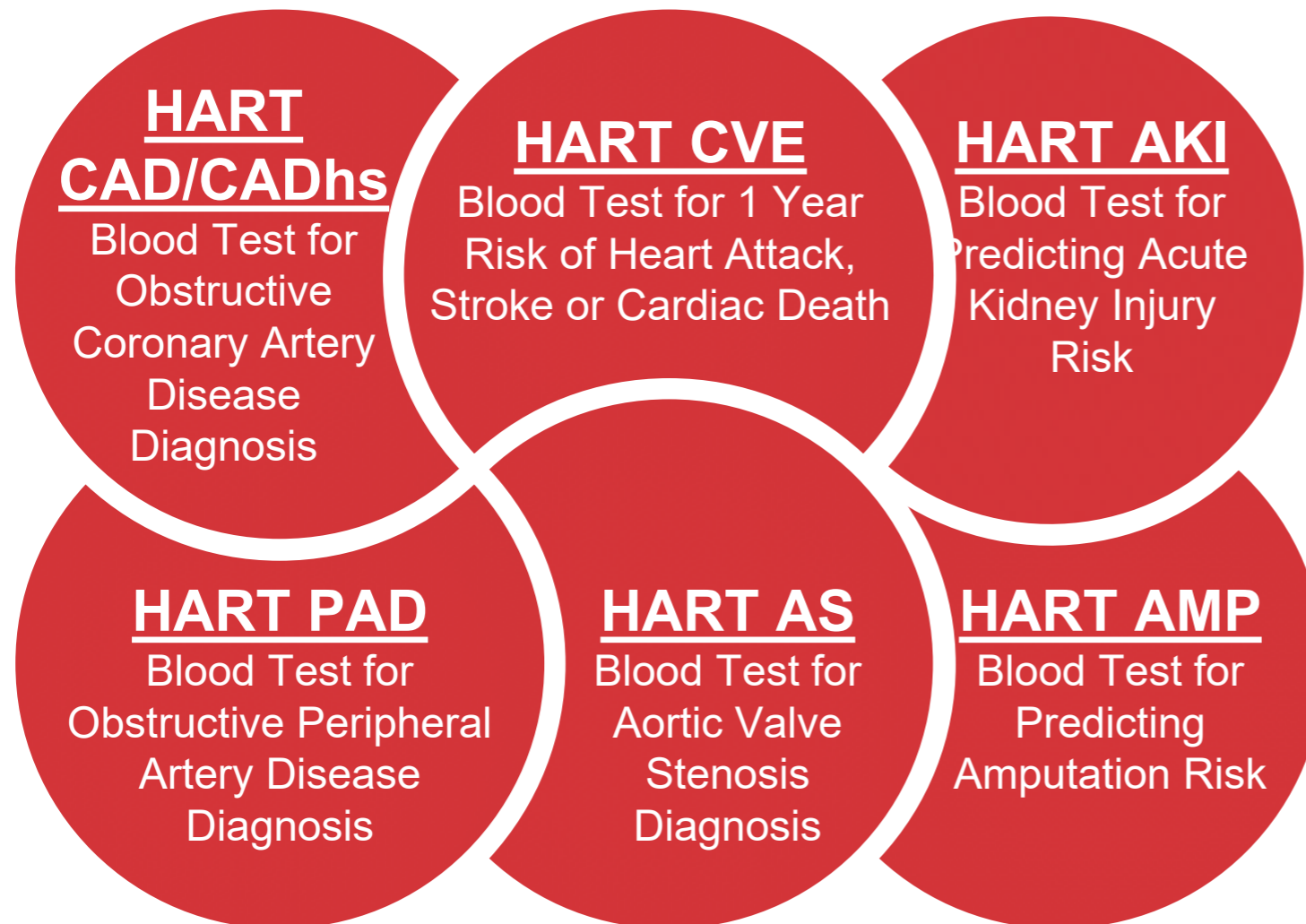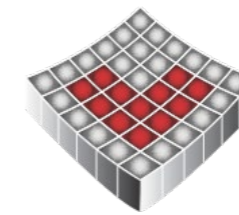
01 /
OVERVIEW

/ Prevencio, Inc., a Kirkland, Washington-based company, is **Revolutionizing Blood Tests For Cardiovascular Disease —Powered by Artificial Intelligence (AI)**
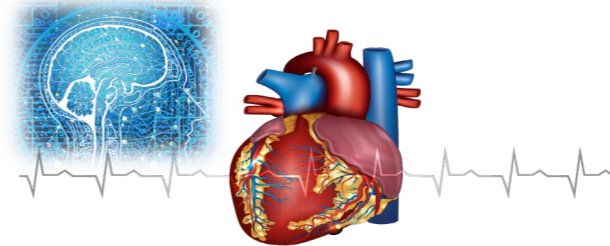
/ **Why Cardiovascular Disease (CVD)? Kills more people than all cancers combined;** leading cause of death in US (1 in 3 deaths); exorbitant costs ($749B by 2035); inaccurate, expensive, dangerous currently used testing modalities (65% of cardiac caths unnecessary)

/ Prevencio's novel, **AI-driven HART Blood Tests** developed in **strategic research partnership** with **Massachusetts General Hospital (MGH)** & cardiac biomarker expert, **Dr. James Januzzi**

/ **What's Different:** As opposed to single protein tests, HART tests use **Machine Learning + Multiple Proteins** (vs. single proteins) using industry standard detection technologies (immunoassays) **+ Proprietary Algorithms to surpass accuracy of standard-of-care tests**

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Preventing the Preventable

7 HART Blood Tests

HART CAD/CADhs
Blood Test for Obstructive Coronary Artery Disease Diagnosis

HART CVE
Blood Test for 1 Year Risk of Heart Attack, Stroke or Cardiac Death

HART AKI
Blood Test for Predicting Acute Kidney Injury Risk

HART PAD
Blood Test for Obstructive Peripheral Artery Disease Diagnosis

HART AS
Blood Test for Aortic Valve Stenosis Diagnosis

HART AMP
Blood Test for Predicting Amputation Risk

AI-driven, Machine Learning, Multiple Blood Proteins, & Proprietary Algorithm to Improve Cardiovascular Diagnostic & Prognostic Accuracy

NORMAL ARTERY

ARTERY NARROWED BY PLAQUE

BLOOD FLOW

ATHEROSCLEROTIC PLAQUE
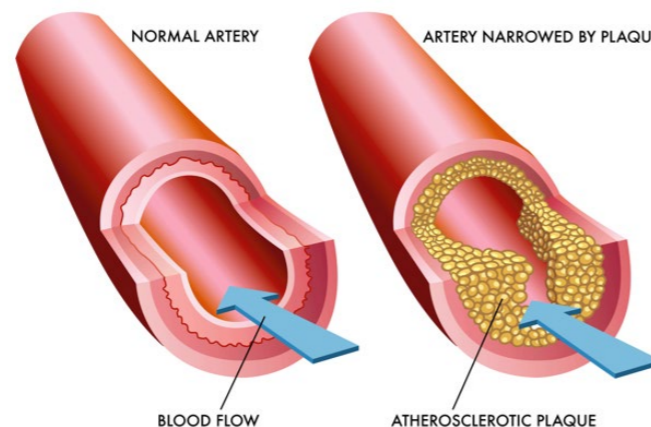
HART

Prevencio Owns 100% IP for HART Tests; No Royalties

/ **16 Peer-reviewed Publications & Presentations**

- CASABLANCA Study
- European Society of Cardiology (ESC) Late Breaking Science – Aug 2016 & 2018
- *Journal American College of Cardiology (JACC)* – March 2017
- *American Journal of Cardiology (AJC)* – July 2017
- AHA Scientific Sessions – Nov 2017, 2018 & 2019
- American Diabetic Association (ADA) Scientific Sessions – June 2018, 2019
- *Clinical Cardiology* - June 2018, Jan 2019
- *Open Heart* - Nov 2018
- ACC Scientific Sessions March 2017, 2018, 2019

/ **Research Partners**

- James Januzzi, MD – Massachusetts General Hospital (MGH), Harvard Medical School, Associate Editor *JACC,* Cardiac Biomarker/Guidelines Expert
- Christopher deFilippi, MD – INOVA Heart & Vascular Institute, Cardiac Biomarker Specialist
- Dirk Westermann, MD – University Heart Center, Hamburg, Germany, Head of the Structural Heart Program
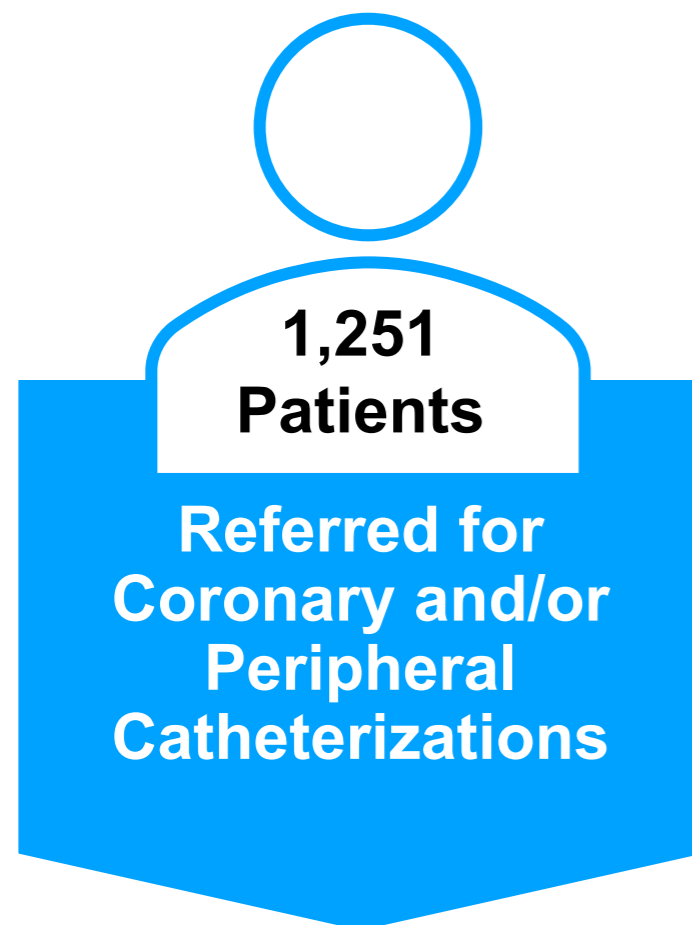
/ **Commercial Partners**
- Myriad RBM Lab for RUO and LDT HART Test Offering
- Meso Scale Diagnostics (MSD) – demonstrated 95% Concordance between Luminex & MSD for HART CVE
- Bayer Pharmaceuticals – Letter of Intent (LOI) executed October 2019
- Microsoft – Partnership for Azure Cloud AI computing, marketing expertise, 500+ salesforce selling HART tests
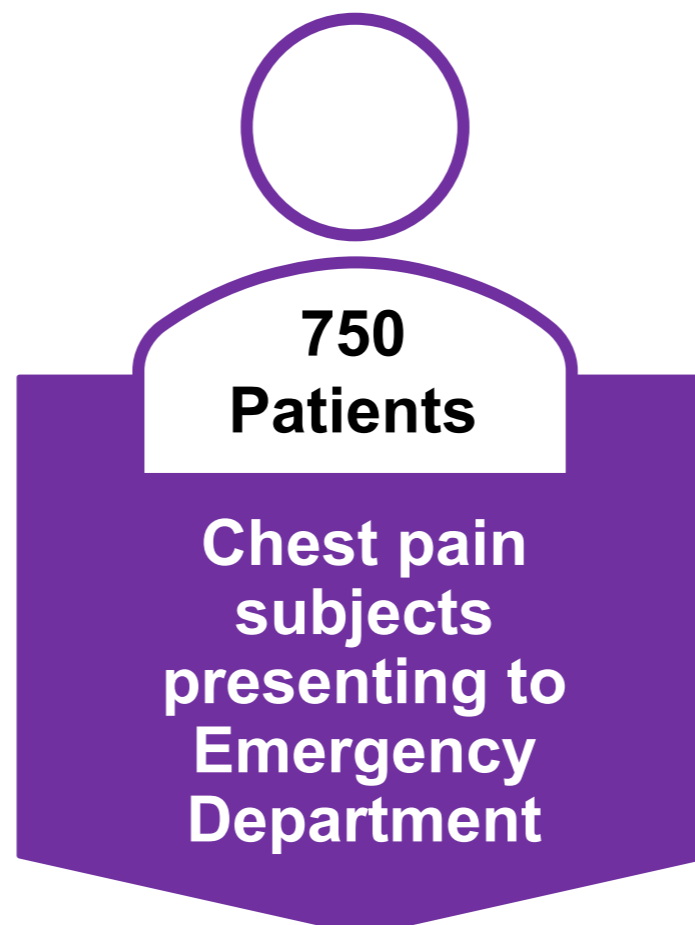- Children's Hospital – Custom Diagnostic Agreement

/ **Revenue, Regulatory, & Reimbursement**
- Research Use for Pharma (RUO)/Custom Diagnostics - Available at Myriad RBM; Generating 2020 revenue
- Laboratory Developed Test (LDT) – Available for physicians for patient use with processing at Myriad RBM; Revenue projected July 2020
- In Vitro Diagnostics (IVD) (FDA) – Path forward pending platform partnerships; 3 NDAs signed with potential platform companies
- Health & Economic Studies – Study designs underway to create Medical & Economic Models; Allegheny Healthcare Systems/Highmark VITALS program; Series B-1 financing will fund these studies.
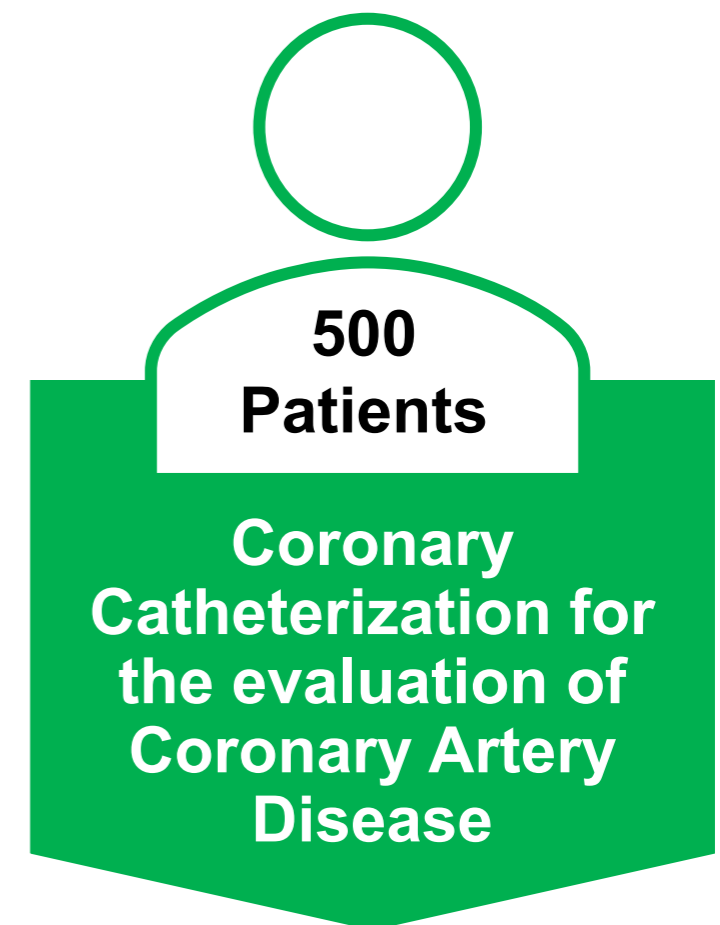
109 Biomarker Results, 250+ Clinical Variables & Medical Outcomes (up to 5 years) from 2,501 Patients

1,251 Patients

Referred for Coronary and/or Peripheral Catheterizations

MGH 1811

MASSACHUSETTS GENERAL HOSPITAL

750 Patients

Chest pain subjects presenting to Emergency Department

UNIVERSITÄRES HERZZENTRUM UHZ

Universitäres Herzzentrum Hamburg

500 Patients

Coronary Catheterization for the evaluation of Coronary Artery Disease

INOVA® Heart and Vascular Institute

Prevencio's HART tests have *Clinical Utility* in multiple settings…

$3B+ Market

EMERGENCY ROOMS

LIFE INSURANCE

PHYSICIAN OFFICES

4 KEY MARKETS

PHARMA CLINICAL TRIALS

9

2019/2020 Key Accomplishments

Clinical Momentum

- New Test, HART CADhs, presented at Nov 2019 AHA Scientific Sessions.

  - Incorporates high sensitivity (hs) troponin for emergency room (ER) "Gray Zone" patients who cannot be ruled out/nor ruled in for a heart attack.

  - ~30% of chest pain patients are "Gray Zone" and represent a major "pain point" in the ER.

  - HART CADhs "Gray Zone" solution is of significant interest to potential platform partners because they have hs troponin tests on the market. HART CADhs would complement their hs troponin tests and solve a significant unmet clinical need.

  - Overall AUC=0.86; "Gray Zone" AUC=0.88 (Manuscript submitted)

- External Validation of two tests (HART CAD & HART CVE) presented at March 2019 ACC Scientific Sessions

  - Validation on two additional sample cohorts from our two new research partners - University Heart Center (Hamburg, Germany) and INOVA Heart & Vascular Institute (Fairfax, VA).

  - HART CVE AUC=0.86, NPV=99%; HART CAD AUC=0.81 (<65yo) (Hamburg manuscript submitted)

- Publication of HART AKI Prognostic Data, *Clinical Cardiology* – January 2019

  - High accuracy for predicting Acute Kidney Injury (AKI) risk following coronary angiographic procedures which is associated with significant morbidity and death.

  - AUC=0.82

- Presentation at January 2020 FDA-sponsored Think Tank meeting on use of cardiac biomarkers to drive clinical trial efficiency; HART tests highlighted

2019/2020 Key Accomplishments

/ **Product Development / Market Research**

- Meso Scale Diagnostics (MSD) platform development of HART CVE kit components
  - Demonstrated 95% concordance with published data using Luminex platform.
  - Enables pharma to test HART CVE in their labs and for clinical labs to use HART CVE as LDT.
- Voice of Customer Market Research on "Gray Zone" patients conducted at 2019 European Society of Cardiology Scientific Sessions; strong support for HART CADhs for assessing plaque obstruction.
- LDT for patient use offered by Myriad RBM (July 2020)

/ **Revenue Pipeline**

- Bayer Partnership with Letter of Intent (LOI)
  - Includes upfront and milestone payments.
  - Prevencio was selected by Bayer from over 750 companies and 65 countries based on the strategic fit, development stage, and the assessment of internal experts.
  - Prevencio was the only cardiovascular company selected.
- Microsoft Partnership for Azure AI computing, marketing expertise, 500+ hospital/life sciences salesforce
- Seattle's Children's Hospital Custom Diagnostic for Kawasaki Disease (not announced)

/ **Projected 2020 Highlights**

- Revenue - Pharma Research, Custom Diagnostics (Kawasaki Disease), Launching LDT July 2020
- Partnerships - Platform & Reference Lab Partnerships (NDAs with 3 potential platform partners)
- Clinical/Reimbursment - Commence Health Economics & Outcomes Study; Allegheny Healthcare Systems/Highmark BCBS VITALS program;
- Product - Migration to Microsoft Cloud / Artificial Intelligence platform partner

AI-driven platform allows development of custom diagnostics for pharma & medical device companies

Bayer inks deals with eleven startups, including Prevencio, under Bayer's G4A Digital Health Partnerships

Berlin – October 10, 2019

Link: http://www.press.bayer.com/baynews/baynews.nsf/id/Bayer-inks-deals-with-eleven-startups-under-G4A-Digital-Health-Partnerships-program

Prevencio's AI HART platform for custom diagnostic tests

Children's Hospital Custom Diagnostic

Need:
Custom Diagnostic

- Michael Portman, MD, expert in Kawasaki Disease, **needed a custom diagnostic** for a rare, but deadly, children's disease
- Identified **Prevencio as expert in advanced, highly accurate diagnostic** test development

Rare Disease:
Kawasaki Disease (KD)

- **KD is most common cause** of acquired heart disease in children
- **Fever** is primary presenting symptom
- **Time to diagnosis is critical**; if not treated quickly, child develops coronary artery aneurysms, 1-2% death rate
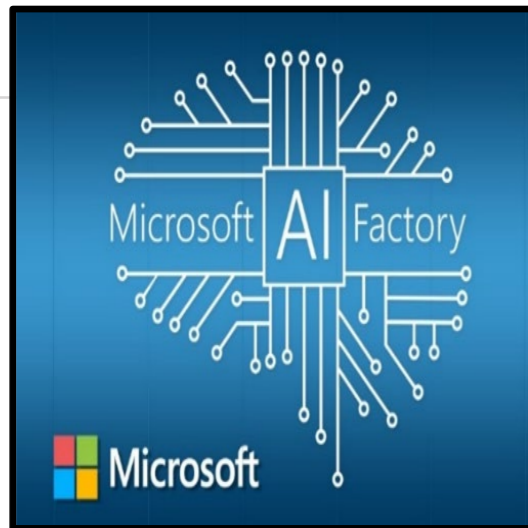
Impact:
Test Every Child with Fever

- **5.4M children** present to US EDs **with fever** every year
- At **$400/test,** potential annual US revenue **$1B+**
- 10X prevalence in Japanese children
- Out licensing rights available for US/Japan

Deal Terms Confidential; Includes Exclusive Licensing Rights

Microsoft 3-Phase Partnership

Phase 1 "Build With":
Microsoft's Azure AI Cloud Computing

- **Scalable, Secure, Reliable** Azure Cloud Strategy
- **2-Year, 6 figure Azure Cloud Credits**
- Meets International Research **Security Standards**
- **Optimal** for LDT HART Tests **for Patients**

Phase 2 "Go to Market":
Microsoft's Powerhouse Marketing Expertise

- **Creates** Aggressive "Go-to-Market" Plan
- Bolsters **Microsoft's HC Mission:** "Accelerate Clinical Research/Scientific Innovation - New Technologies to Improve Care Delivery, Speed Diagnoses, and Modernize Treatments"

Phase 3 "Sell With":
Microsoft's 500+ Healthcare-Life Science Salesforce

- **Selling to Installed** Hospital /Research/Pharma/Contract Research Organizations (CROs) **Customer Base**
- **Offering Novel, Highly Accurate** AI-driven Blood **Tests to Improve Patient Outcomes** & Clinical Trials at Reduced Costs

Includes Microsoft Two-Year Commitment; Six Figure Investment Credit

Beyond Initial MSFT Partnership

Bold Goal:
"Build Massive Biorepository"
on Azure Cloud

- Massive biorepository with millions of patients' medical histories, *annual follow ups*, and *blood samples*

- Apply AI/Machine Learning expertise to further improve diagnosis, care & prevention of cardiac disease

Build With:
"Patient Opt-in"

- Obtain patient approval to "Opt-in" to Prevencio's social cause **"Our Heart Health"** program

- "Opt-in" patients having Prevencio HART tests, consent for blood & data for clinical research

- Discounts for ongoing testing

Forbes | 2019
AMERICA'S
BEST LARGE
EMPLOYERS

Initial Targets:
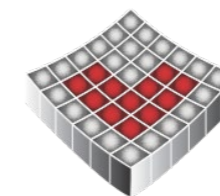**Large Employer**
Wellness Programs

- Proposing MSFT subsidizes HART testing through wellness programs for 54k WA State employees

- Additional large employers

- Interrogate growing database

- Monetize data to hospital systems/pharma/CRO customers

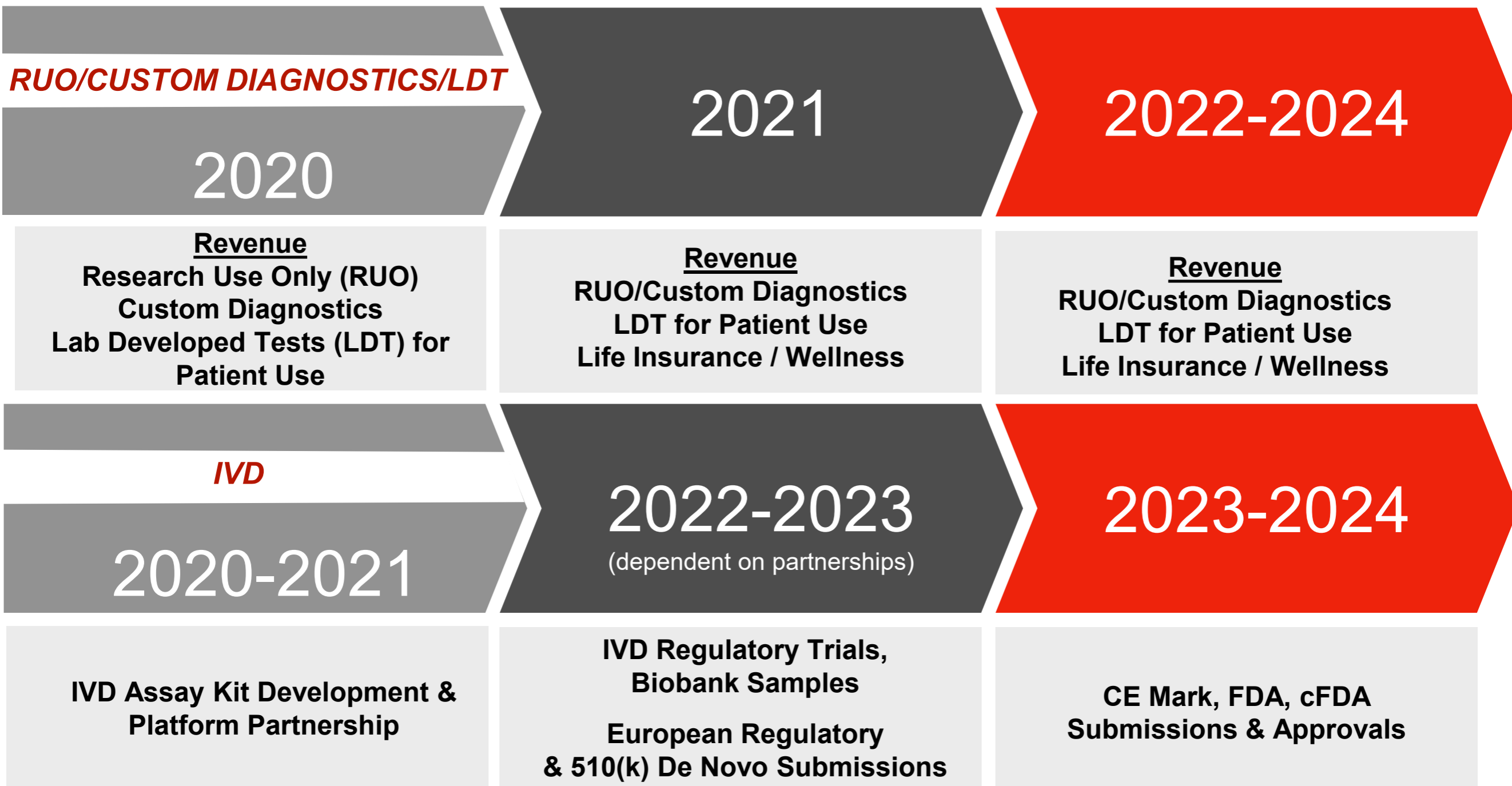# 100K patients tested annually @$200/test =~$20M annual revenue

LOOKING FORWARD
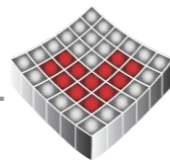## COMMERCIALIZATION TIMELINES

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RUO/CUSTOM DIAGNOSTICS/LDT

2020	2021	2022-2024
Revenue Research Use Only (RUO) Custom Diagnostics Lab Developed Tests (LDT) for Patient Use	**Revenue** RUO/Custom Diagnostics LDT for Patient Use Life Insurance / Wellness	**Revenue** RUO/Custom Diagnostics LDT for Patient Use Life Insurance / Wellness

IVD

2020-2021	2022-2023 (dependent on partnerships)	2023-2024
IVD Assay Kit Development & Platform Partnership	IVD Regulatory Trials, Biobank Samples European Regulatory & 510(k) De Novo Submissions	CE Mark, FDA, cFDA Submissions & Approvals

REIMBURSEMENT HEALTH & ECONOMIC ANALYSIS

/ Medical & Economic study(s) design underway; <u>Allegheny Healthcare Systems/Highmark VITALS program</u>; Series B-1 financing will fund these study(s).

/ Medical model consists of the most common care pathways and decision points. Data collected includes:

- Demographic information – total patients in the population, gender ratios, age strata, etc.
- Medical information – measures and frequencies of test results, medications, etc.
- Medical endpoints – referrals, cath. lab and other procedures, MIs, visits to ER, mortality

/ Economic model consists of average costs associated with current care pathways and <u>potential savings created by changing the care pathway using Prevencio tests</u>. Data collected includes:

- Medical records
- Billing
- Hospitalizations
- Specialist Referrals & Visits

Partnership, Exit Potential via Multiple Sectors

Major IVDs

Roche Diagnostics

SIEMENS Healthineers

BECKMAN COULTER

Abbott Diagnostics

Emerging IVDs

QUIDEL

PROXIM DIAGNOSTICS

MeMed

Medical Device

Medtronic

BD

Edwards LIFESCIENCES

Life Insurance

Northwestern Mutual

Lincoln Financial Group

NEW YORK LIFE

Prudential

Pharma

Pfizer

BAYER

NOVARTIS

janssen
PHARMACEUTICAL COMPANIES
OF Johnson&Johnson

Test Kit Suppliers

ThermoFisher SCIENTIFIC

MSD
Meso Scale Diagnostics, LLC.

bio-techne

IT Healthcare Ventures

amazon

Google

Microsoft

Apple

Reference Labs

LabCorp

Quest Diagnostics

MYRIAD
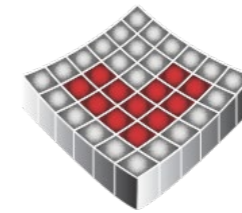
PHYSICIAN FEEDBACK

"I will help the company and will talk to the investment community on behalf of Prevencio"

"Pricing very reasonable"

"Exciting applications"

"Proteomic approach can arbitrate and help make a diagnostic decision"

"Wonderful and exciting technology"

"I will be a speaker"

"The nearest competitor's test is 10% as valuable as HART/Prevencio's"

"I am blown away"

"Consider a combination of HART tests with other reasonably priced tests"

"Include Prevencio with stress test for those on the fence"

"Remarkable technology"

"I would use Prevencio HART tests several times a day"

"Tremendous future"

Addressing a Major Problem
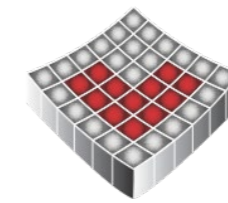
CARDIOVASCULAR DISEASE KILLS MORE PEOPLE IN THE US THAN _ALL_ CANCERS COMBINED.

Leading Cause of Death	Exorbitant Costs	Inaccurate, Dangerous & Expensive Tests
1 in 3 people die	$749B in CVD Costs by 2035	65% of Coronary Catheterizations are Unnecessary

Prevencio has Novel AI-driven, Diagnostic & Prognostic Solutions

02 /
APPENDIX A: CLINICAL UTILITY:

LEAD TESTS- HART CADhs/ HART CVE

ER Chest Pain Triage

Emergency Room Chest Pain Visits

High Sensitivity Troponin 'Rule Out' NSTEMI* in ~50% Patients NPV: 99%

Observational / Gray Zone** Up to 40% Patients

ECG & High Sensitivity Troponin 'Rule In' MI in 10%-20% Patients PPV: 75%-80%

MI Excluded; Probable Early Discharge

Heterogeneous/ "Gray Zone" Requires Further Investigation if No Alternative Explanation for Increased Troponin**

High Likelihood for Severe CAD & MI; Admission & Coronary Angiography***

HART CADhs $1B TAM

* Non-ST Elevation Myocardial Infarct
** ESC ACS Guidelines: Patients who do not qualify for 'rule-out' or 'rule-in' represent a heterogeneous group that may require further investigations if no alternative explanation for increased troponin
*** 1% death rate; *Circulation,* 2015; Heart Disease and Stroke Statistics-2016 Update; e308

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"Gray Zone" Patients: Major Pain Point

"Gray Zone" (aka Observational) patients, a major pain point for ER/clinicians; Up to 40% of ER chest pain patients can neither be ruled-out by hs Troponin nor ruled-in by hs Troponin or ECG.

10 Studies Highlighting Gray Zone "Pain Point"

Largely European Data; Ambiguous Patients Often Excluded

US Data Demonstrates Considerably Larger Gray Zones
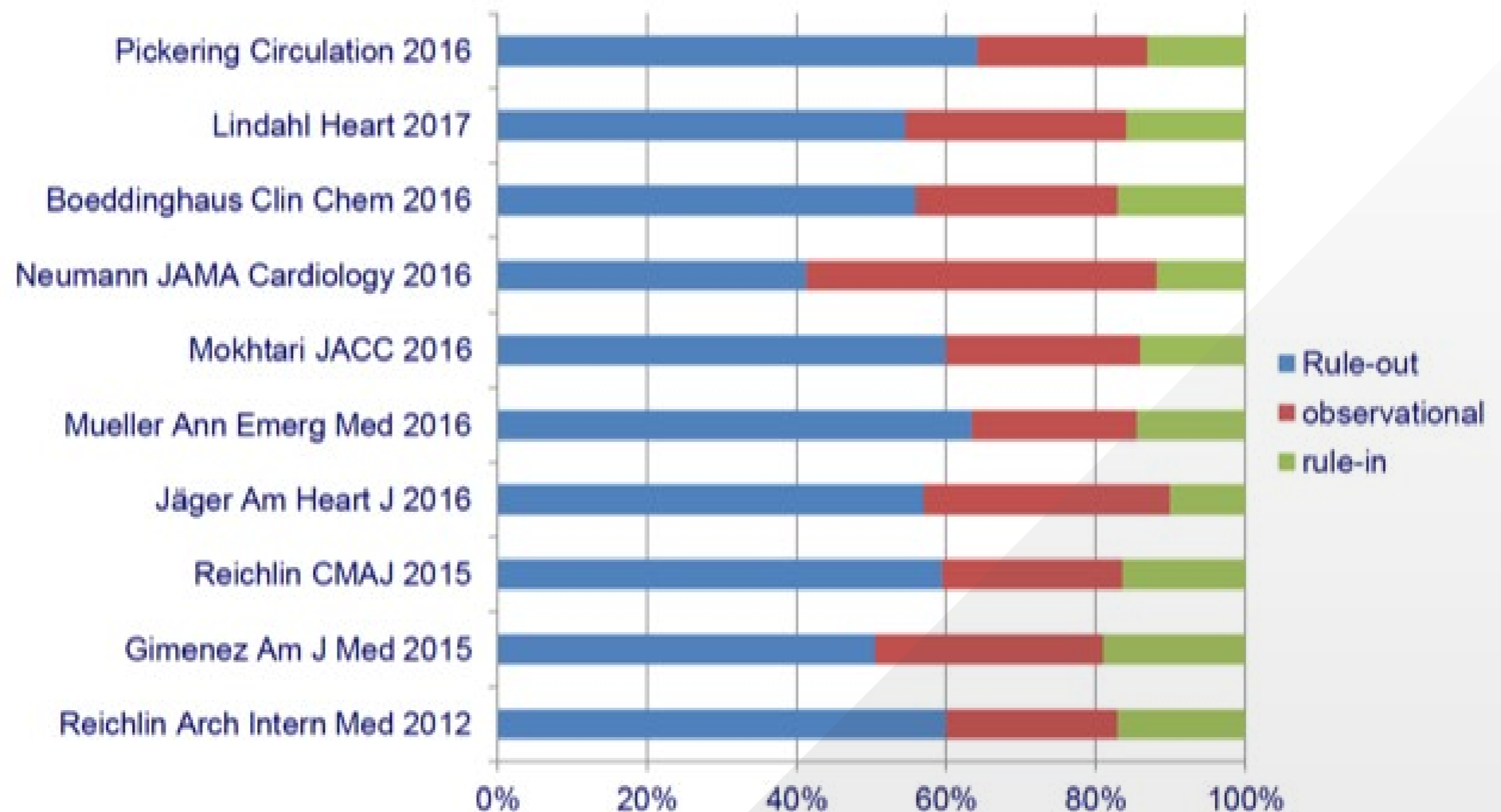
23
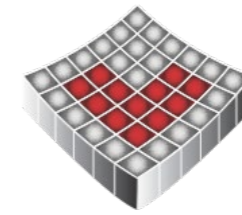
CADhs

HART

HART TEST — CADhs
Coronary **A**rtery **D**isease
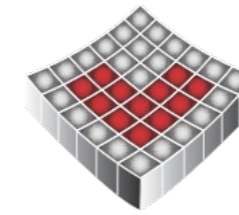
HART CADhs Panel

Low-cost, low-risk, accurate, and 1 hour multi-protein blood test to enhance coronary artery disease diagnosis

INPUT:

3 Clinical Parameters
- Sex
- Age
- Hx PCI (Stent or Angioplasty)

3 Proteins
- Hs Troponin
- Adiponectin
- Kidney Injury Molecule-1 (KIM-1)

OUTPUT:

HART

HART CADhs 5-Point Score
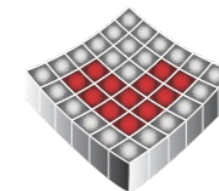
HART CADhs 5-POINT SCORE

5-Point Score

HART Score Accuracy:
- 89% Negative Predictive Value (NPV)
- 97% Positive Predictive Value (PPV)

Score of **1**: 89% (low) likelihood of obstruction

Score of **5**: 97% (high) likelihood of obstruction
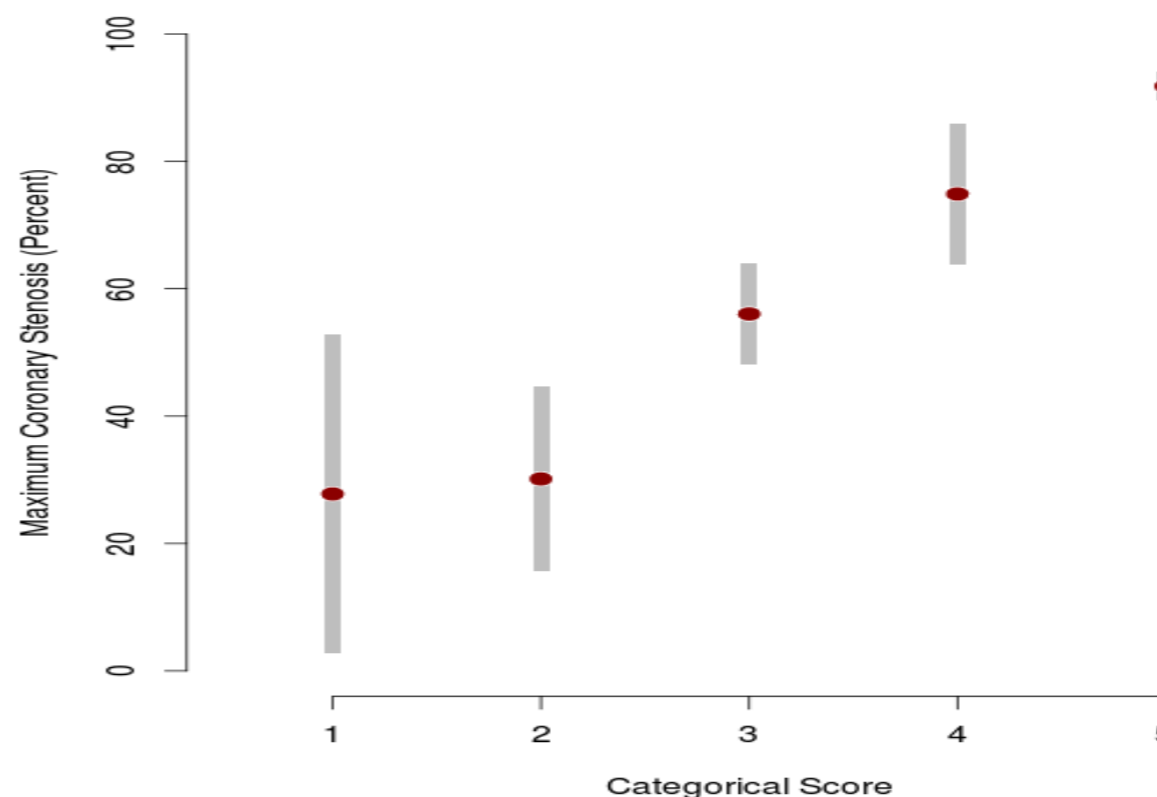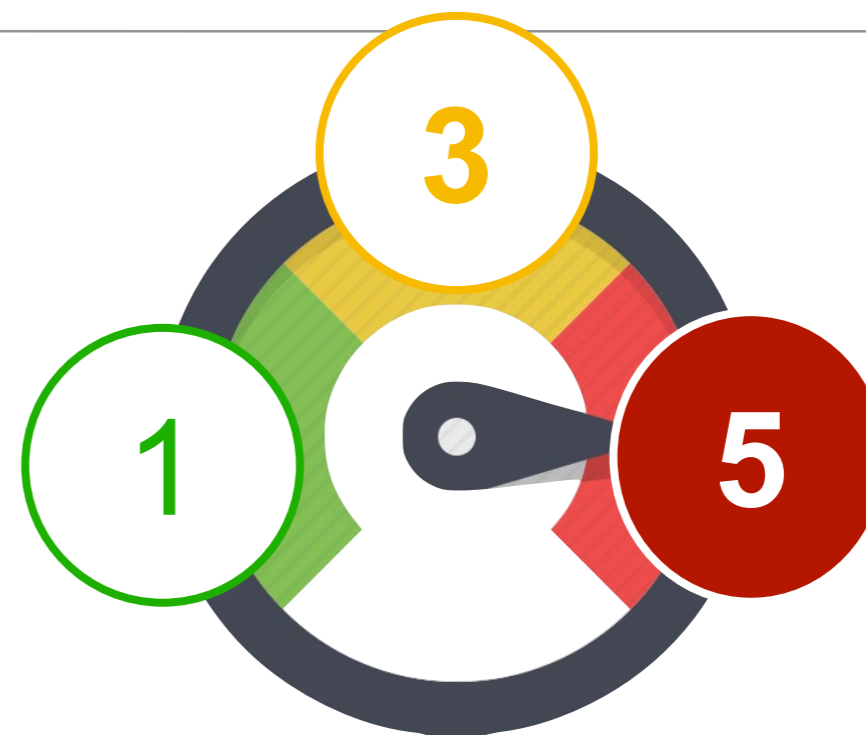
ER Triage for Gray Zone with HART CADhs
"How it works"

Emergency Room Chest Pain Visits

High Sensitivity Troponin 'Rule Out' NSTEMI* in ~50% Patients NPV: 99%

Observational / Gray Zone** Up to 40% Patients

ECG & High Sensitivity Troponin 'Rule In' MI in 10%-20% Patients PPV: 75%-80%

Lab Tests run for CADhs Biomarkers (hsTroponin Adiponectin, KIM-1)

Biomarker Results combined with Clinical Variables (Sex, Age, History of PCI)

Prevencio Algorithm run in Middleware, LIS, or Cloud

HART CADhs Score

HART CADhs Scores 1-2

MI Excluded; Probable Early Discharge

HART CADhs

Addresses >65% Gray Zone

HART CADhs Scores 3-5

High Likelihood for Severe CAD & MI; Admission & Coronary Angiography***

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"Gray Zone" Potential Solution

⁄ **Machine Learning-Driven, Multi-Protein/Clinical Variables Algorithmically-Scored hs Troponin-based panel (HART CADhs)**

  ⁄ The CADhs panel was trained/developed, internally & externally validated with hs Troponin assays from two Major IVD companies on **2 different cohorts**

  ⁄ Trained, internally & externally validated on a **total of 1214 patient** samples

  ⁄ Mass General Hospital (MGH) *Casablanca (CB)* biobank for training & internal validation, n= 914

     ⁄ Training n = 636; Internal validation n = 278

  ⁄ University of Hamburg *Biomarkers in Acute Cardiac Care (BACC)* biobank for external validation

     ⁄ External validation n = 300

  ⁄ **Robust performance:** HART CADhs vs. hs Troponin *for CAD >70% obstruction*

     ⁄ hs Troponin on MGH internal validation set ***AUC = 0.61, p<0.001***

     ⁄ HART CADhs on MGH internal validation set ***AUC = 0.85, p<0.001***

     ⁄ HART CADhs on Hamburg external validation, ***excludes STEMI patients, AUC = 0.86, p<0.001***

     ⁄ HART CADhs on Hamburg external validation, ***Gray Zone patients, AUC = 0.88, p<0.001***

  ⁄ HART CADhs data presented at Nov 2019 AHA Scientific Sessions – manuscript submitted
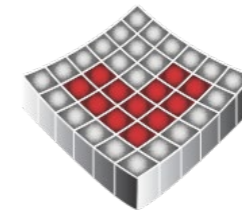
EMERGENCY ROOM

HART CADhs	HART CVE

Prevencio has Novel Diagnostic & Prognostic Solutions

- Evaluate chest pain "Indeterminant/Gray Zone" patients not having a heart attack but they may have plaque/obstruction in coronary arteries and at ***imminent*** risk of heart attack (HART CADhs)

- Evaluate chest pain patients for ***longer term***,1-year risk of heart attack, stroke, or cardiac death (HART CVE)

- Use with or without stress tests or coronary CT angiogram

Beyond the Emergency Room

Physician Office Physicals & Follow Up

- Monitor patients *without* known heart or peripheral disease but have risk factors
- Monitor *known* heart or peripheral disease patients and risk progression
- In conjunction with stress testing or Cardiac CT Angiogram (CCTA) to improve overall diagnostic accuracy

HART CADhs, HART CVE
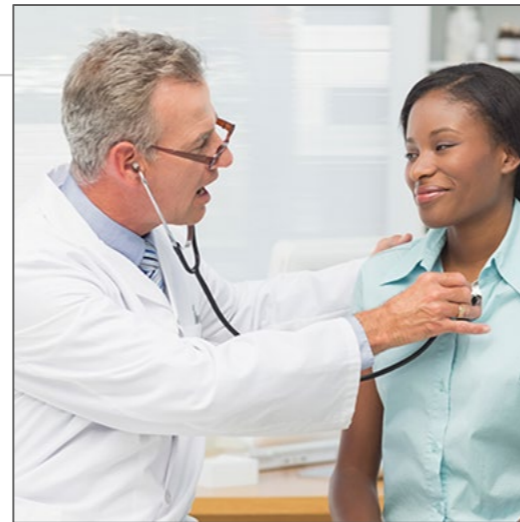
Life Insurance

- Life Insurance companies issue 28 million life insurance policies in the US each year
- Interest lies in the NPV of HART CVE and PPV of HART CAD
- Accurate prediction of CV conditions may streamline & decrease insurance companies expense

HART CADhs, HART CVE

Pharma Clinical Trials

- Saves pharma companies time & money identifying & enrolling only high risk CAD or PAD patients who are better suited for their trials
- Assess drug efficacy
- Assess heart toxicity of non cardiac drugs
- FDA-accepted methodology

HART CADhs, HART CVE
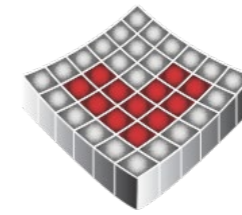
HART TEST — CVE
CardioVascular Events
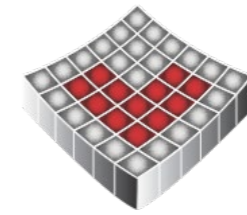
YOU CAN NOW TAKE A TEST TO TELL YOUR RISK OF HAVING A HEART ATTACK, STROKE OR DEATH IN THE NEXT YEAR…
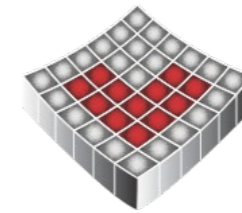
SOLUTION *HART CVE TEST*

**Low-cost, low-risk, accurate multi-protein blood test for
1-year heart attack, stroke, or cardiac death risk**
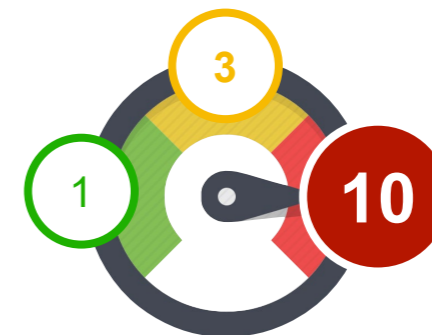
INPUT:

4 Proteins

- NT-proBNP
- Osteopontin
- Kidney Injury Molecule-1 (KIM-1)
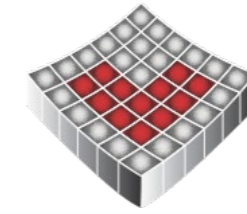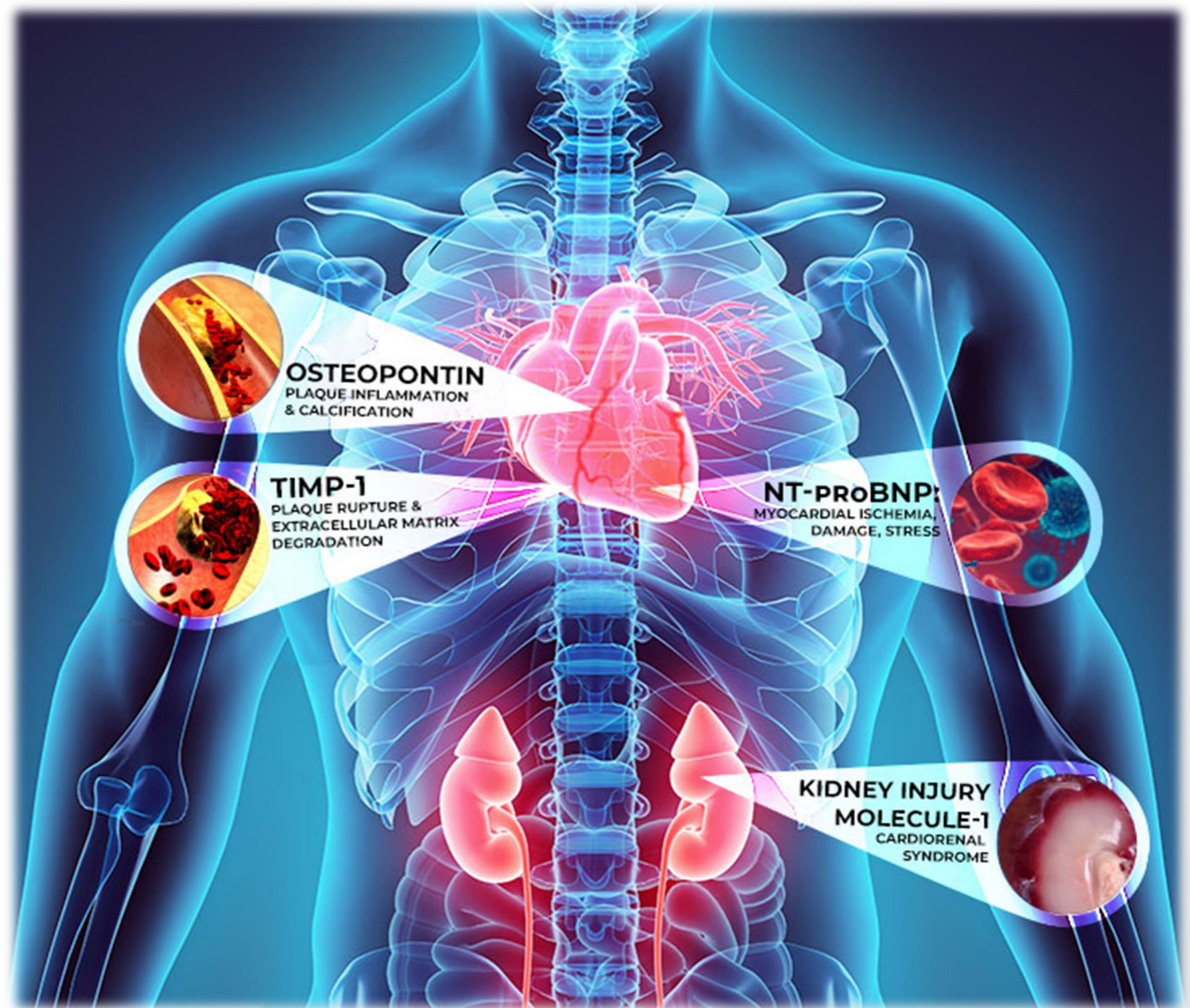- Tissue inhibitor of Metalloproteinase (TIMP)-1

OUTPUT:

HART

HART CVE 10-Point Score

HART CVE TEST

Why these Proteins Predict Cardiac Events

Multiple Proteins Expressed in 1-Year Cardiac Events
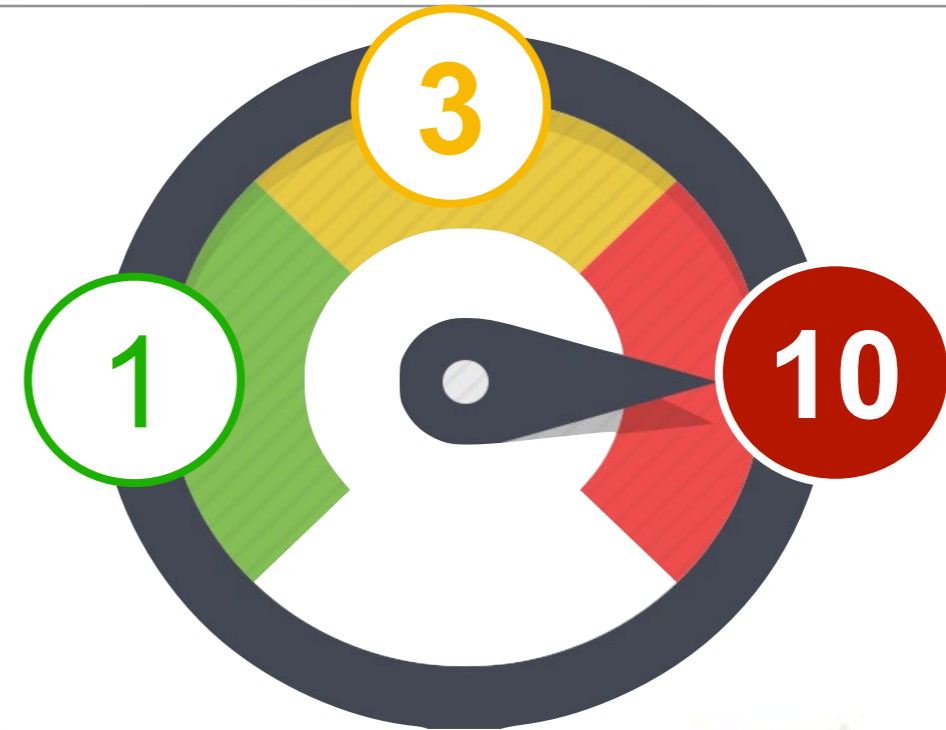
HART CVE 10-POINT SCORE

10-Point Score

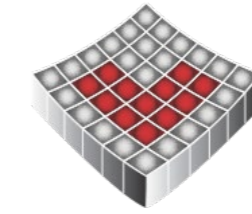**Significantly More Accurate than Standard Clinical Scores**

MGH Internal Validation AUC=0.79
Hamburg External Validation AUC=0.86

Score of **0-5.5**: 97% Negative Predictive Value (Low Risk of Heart Attack, Stroke or Cardiovascular Death)

Score of **>5.5-10**: 36% Positive Predictive Value (Higher Risk of Heart Attack, Stroke, or Cardiovascular Death)
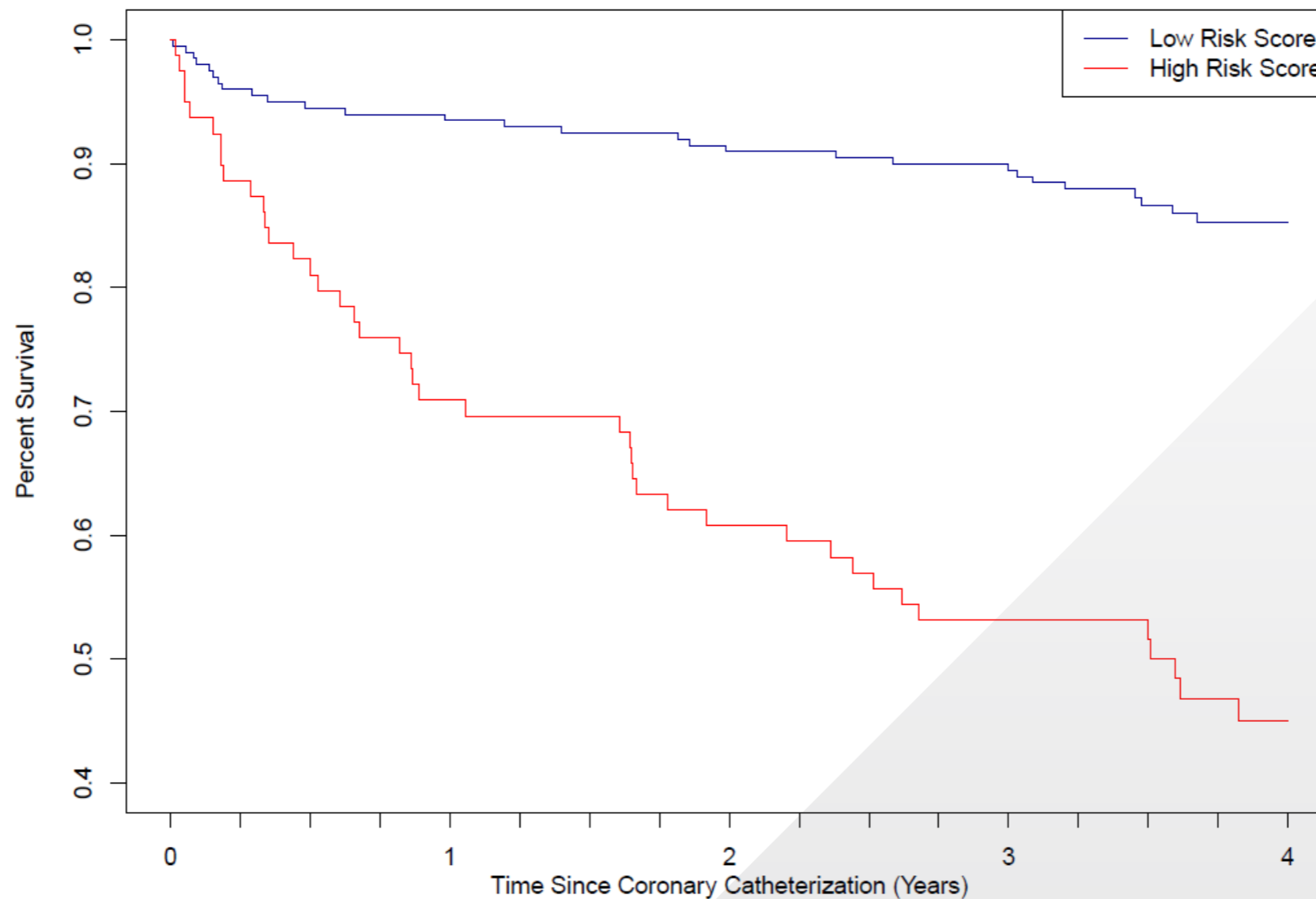
Odds Ratio (OR): 5.9 (2.8, 12.4)
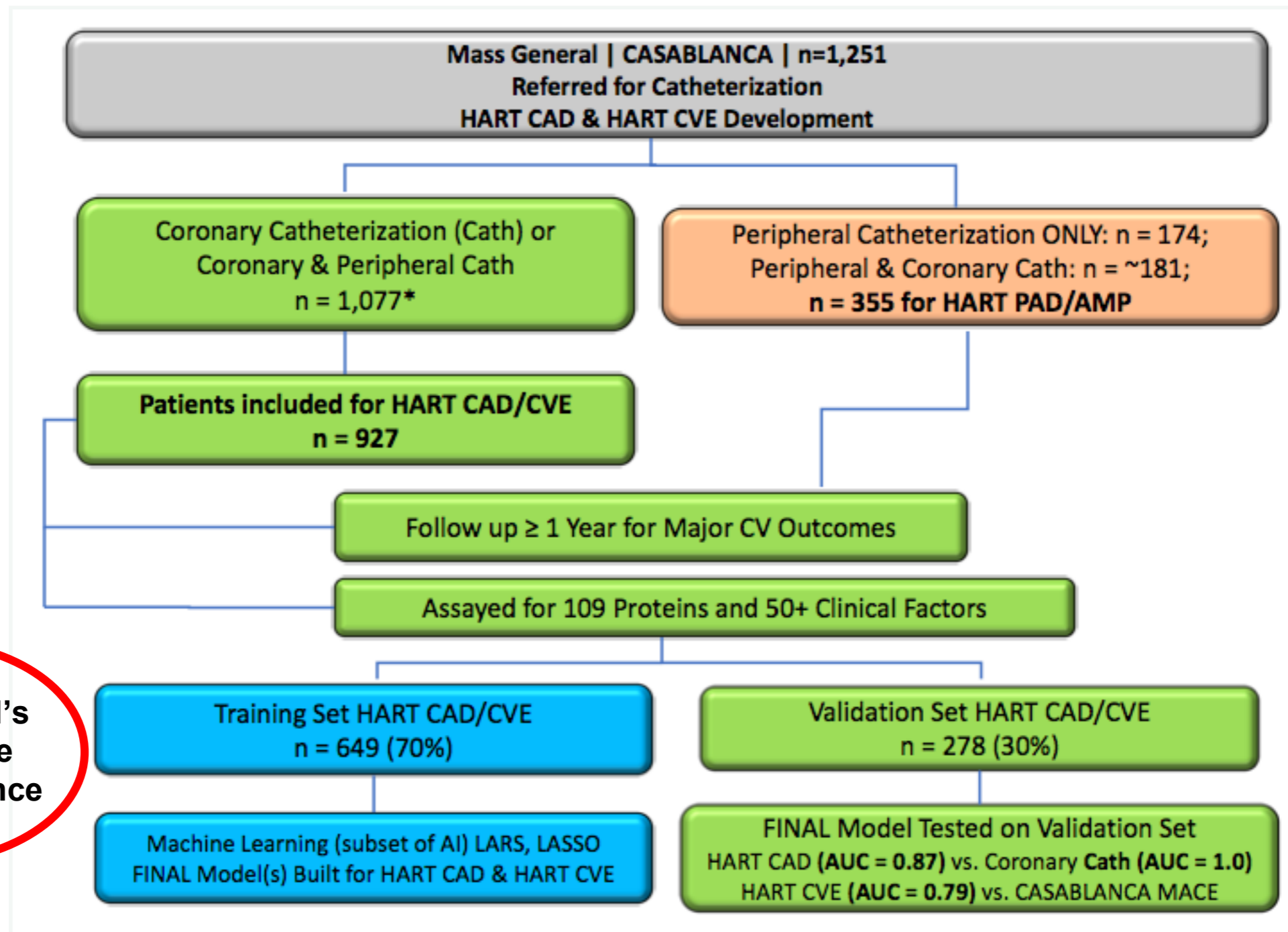Hazard Ratio (HR): 4.03 (2.4, 6.9)

Optimal Cutoff

AUC 0.79

Operating characteristics of optimal cutoff:
Sensitivity 64%
Specificity 76%
Positive predictive value 28%
Negative predictive value 93%

35
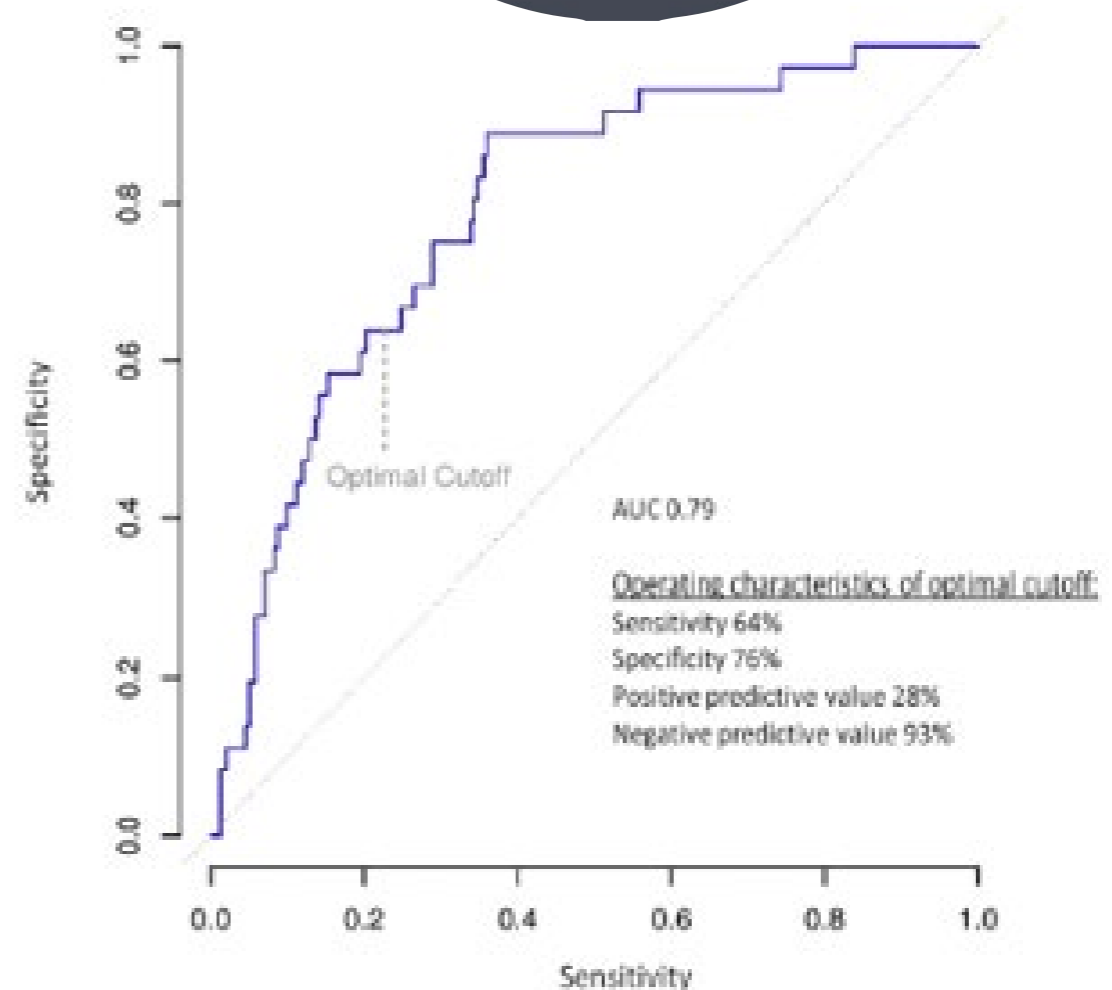
HART CVE 10-POINT SCORE

Kaplan-Meier curve depicting time to CVE (CardioVascular Event) (MI, Stroke, CV Death)

Mass General (MGH) - Casablanca Study

Mass General | CASABLANCA | n=1,251
Referred for Catheterization
HART CAD & HART CVE Development

Coronary Catheterization (Cath) or Coronary & Peripheral Cath
n = 1,077*

Peripheral Catheterization ONLY: n = 174;
Peripheral & Coronary Cath: n = ~181;
n = 355 for HART PAD/AMP

Patients included for HART CAD/CVE
n = 927

Follow up ≥ 1 Year for Major CV Outcomes

Assayed for 109 Proteins and 50+ Clinical Factors

Followed IOM's Best Practice Omics Guidance

Training Set HART CAD/CVE
n = 649 (70%)

Validation Set HART CAD/CVE
n = 278 (30%)

Machine Learning (subset of AI) LARS, LASSO
FINAL Model(s) Built for HART CAD & HART CVE

FINAL Model Tested on Validation Set
HART CAD (AUC = 0.87) vs. Coronary Cath (AUC = 1.0)
HART CVE (AUC = 0.79) vs. CASABLANCA MACE

Note: Stress Test AUC = 0.52 to Coronary Catheterization; *150 Patients set aside for future regulatory purposes
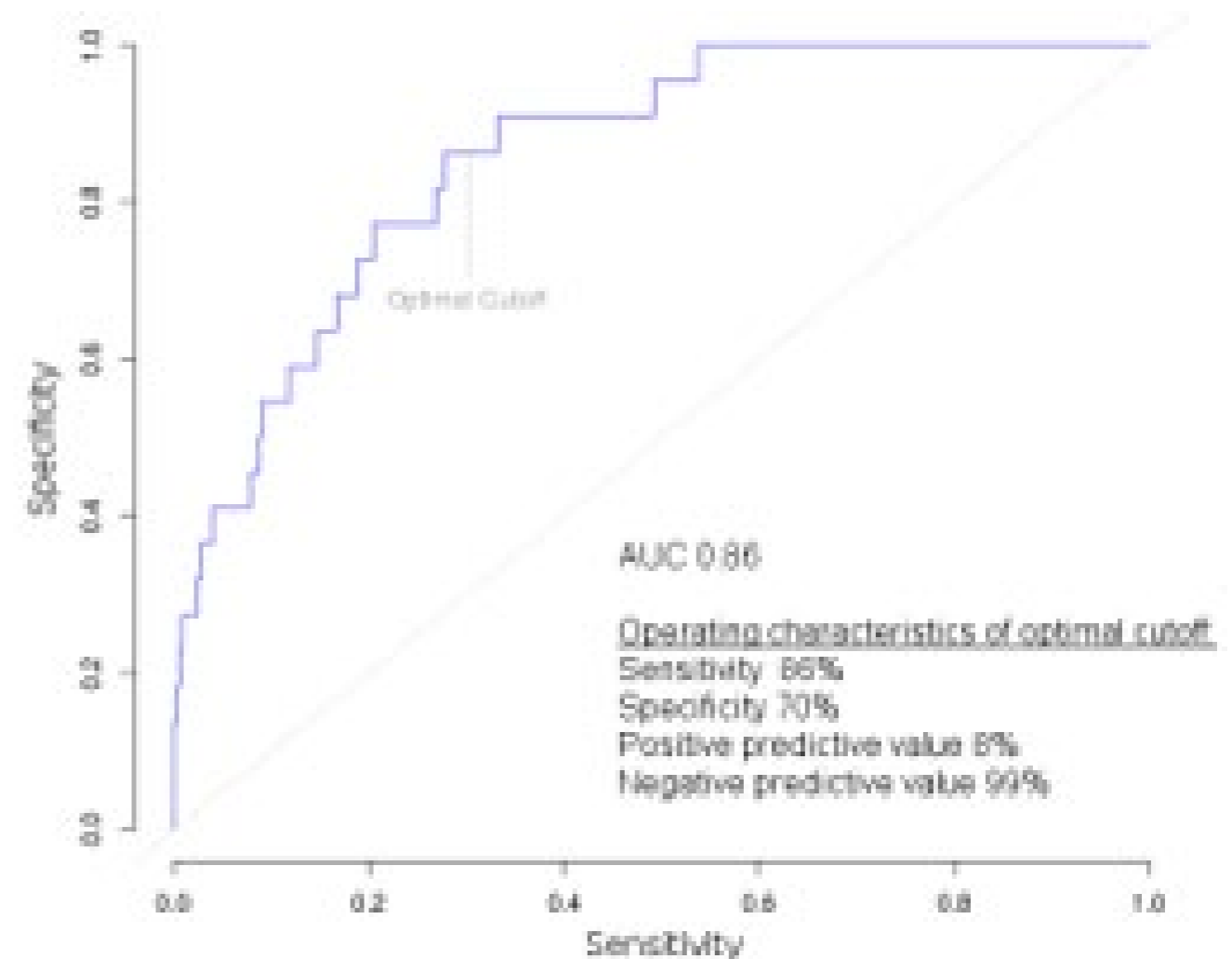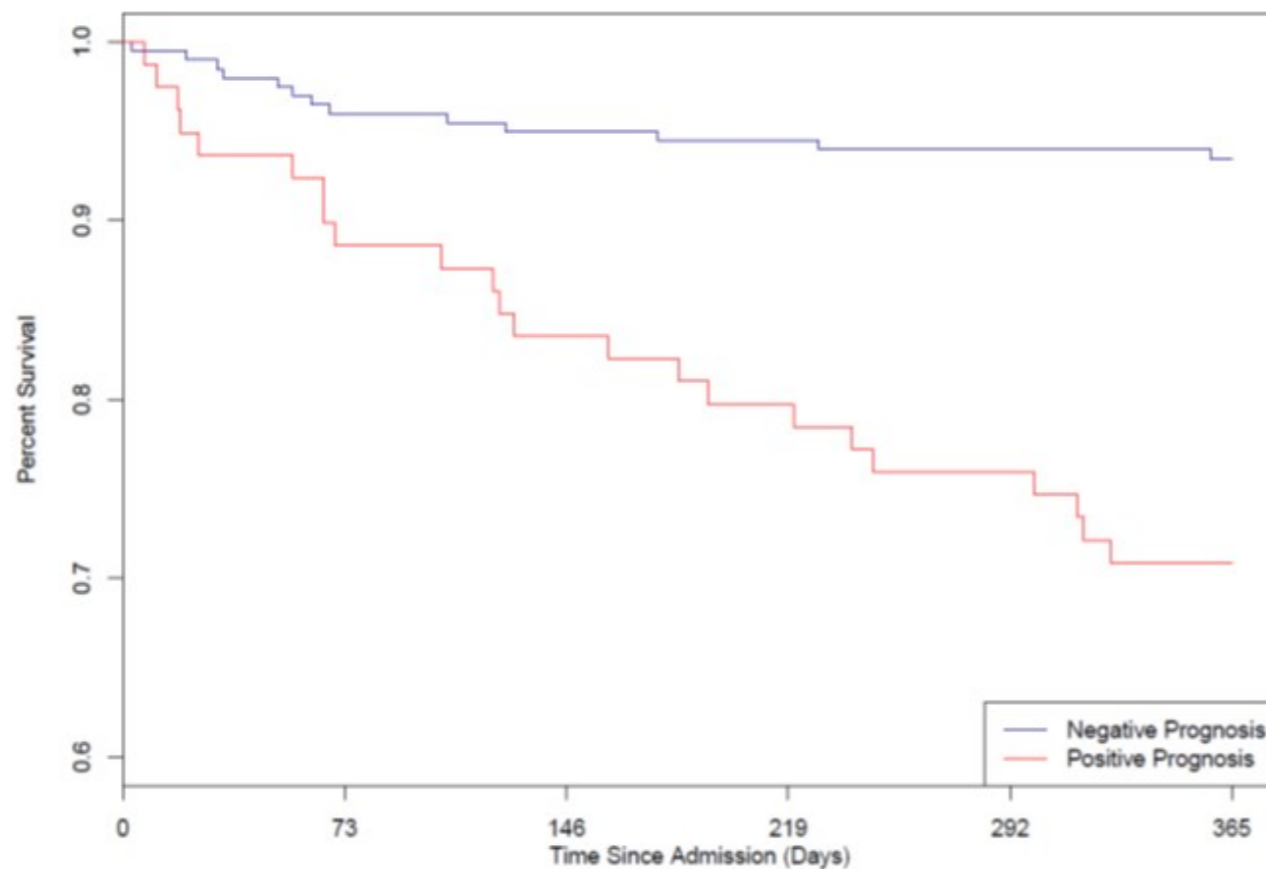
HART CVE External Validation – Europe
The University Heart Center, Hamburg, Germany

Comparison Casablanca & External Validation - Europe

Casablanca ROC
AUC = 0.79
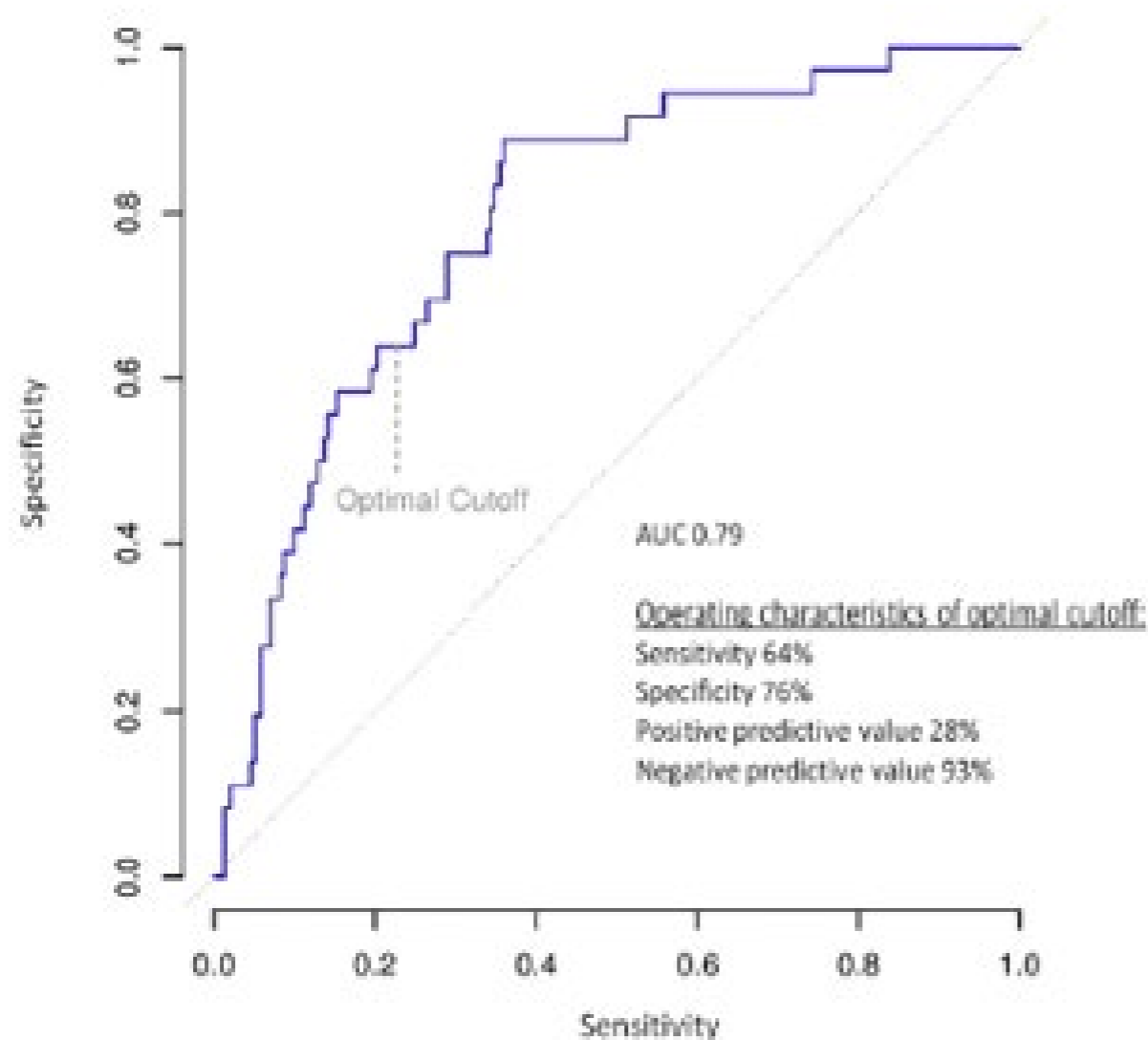
External Validation ROC
AUC = 0.86

Casablanca ROC chart (Specificity vs Sensitivity):

Optimal Cutoff

AUC 0.79

Operating characteristics of optimal cutoff:
Sensitivity 64%
Specificity 76%
Positive predictive value 28%
Negative predictive value 93%

External Validation ROC chart (Specificity vs Sensitivity):

Optimal Cutoff

AUC 0.86

Operating characteristics of optimal cutoff:
Sensitivity 86%
Specificity 70%
Positive predictive value 8%
Negative predictive value 99%

HART CVE External Validation – Europe
The University Heart Center, Hamburg, Germany

Comparison Casablanca & External Validation:
HART CVE Kaplan-Meier Analysis

Casablanca

External Validation - Europe
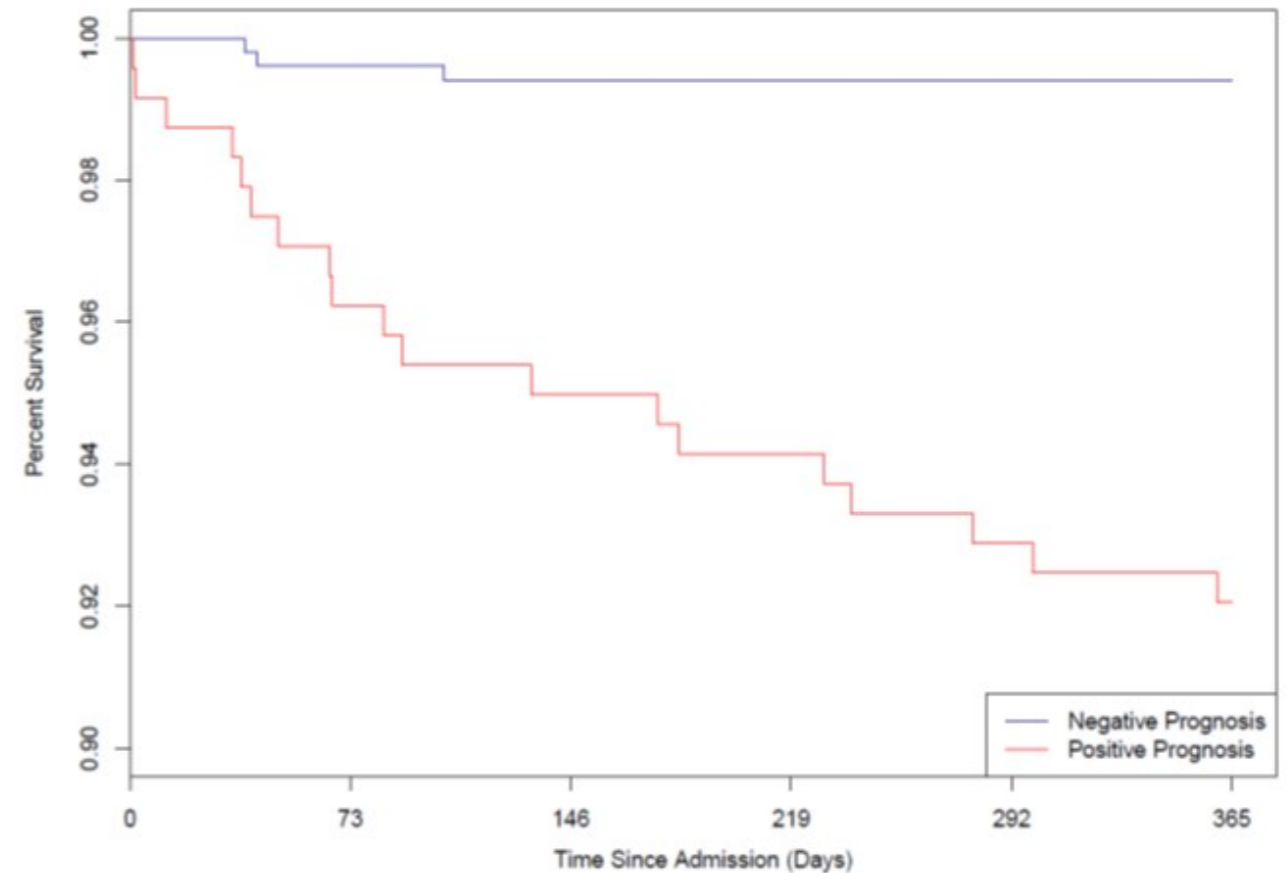
03 /
APPENDIX B: EXECUTIVE TEAM & BOARD

SEASONED & ACCOMPLISHED MANAGEMENT TEAM

Rhonda F. Rhyne, B. Pharm, MBA – President and CEO
- 20+ years experience in executive management for biotech and medtech companies
- Prior to Prevencio, served as President of CardioDynamics, a publicly-traded, CV medical device company, with successful exit

Grady Barnes, PhD – CSO
- 20+ years experience as an R&D executive, including Abbott
- Launched 100+ in-vitro diagnostic products and possesses rich knowledge of the entire product life cycle

Craig Magaret, MS – Chief Analytics Officer
- 20+ years experience as a statistician, bioinformatician and AI/machine learning data scientist.
- Prior to Prevencio, data scientist and bioinformatician with Fred Hutchinson Cancer Research Center & Naval Medical Research in biomarker discovery & molecular diagnostics.

Celine Peters, RN, MS – VP of Clinical Market Development
- Served 25+ years as Clinical Nurse & Researcher
- Served 15+ years in Industry, including CardioDynamics & CRISI, with 2 successful exits

BOARD DIRECTORS & ADVISORS

Rhonda Rhyne, B. Pharm MBA John Cramer, MD, MBA Michele McCarthy Gary Frank	Board Directors	20+ yrs Med Tech Executive Management Hospitalist, Harvard Medical School, UW 20+ yrs Financial Analyst, CPA, CFO Co-Founder, 30+ yrs Business Management
James Januzzi, MD, FACC Franklin Peacock, MD, FACEP Alan Maisel, MD, FACC Steven Goldberg, MD, FACC Meldon Levy, MD, FACC Dirk Westermann, MD, FACC Chris deFilippi, MD Robert Christiansen, PhD	Chief Medical Officers/SAB/ Principal Investigators	Cardiac Biomarker KOL, MGH, Harvard Med School Cardiac Biomarker KOL, Baylor College of Medicine Cardiac Biomarker KOL, UCSD Emeritus Cardiologist, UW Cardiac Cath Lab (former) Cardiologist, USC Professor of Medicine Head, Structural Heart Program, University of Hamburg INOVA Vice Chair of Academic Affairs, Clinical Research Professor Pathology & Medical Research, Univ of Maryland School of Medicine
Sonya Erickson Bill Christiansen Marc Morley	Corporate Counsel IP Counsel IP Counsel	Cooley, LLP Cooley, LLP Mintz, LLP
Bill Brady, CPA	Accountant	Brady & Co.; Formerly KPMG
William LaFramboise, PhD	Co-Founder, Consultant	Allegheny Healthcare Systems; formerly Director Proteomics Facility, UPMC

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APPENDIX C: KEY OPINION LEADERS
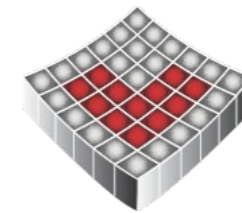
**Prevencio consistently collaborates with prominent leading experts…**
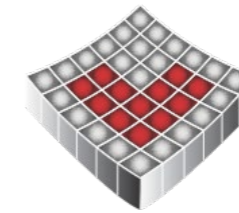
James Januzzi, MD, FACC

- Prof. of Medicine, Harvard Medical School
- Desanctis Endowed Scholar, MGH Cardiologist
- **Cardiac biomarker Key Opinion Leader/Guidelines Expert**
- Associate editor of the *Journal of the American College Cardiology* (*JACC*)
- 400+ publications, 3 textbooks

"We were pleased to develop the HART CAD diagnostic score of clinical variables and proteins with **excellent accuracy** for the diagnosis and exclusion of patients with underlying significant coronary artery disease.

It is impressive that the HART CAD panel **performed well across multiple groups** including those without prior known coronary artery disease, those presenting without acute myocardial infarct, and notably in **women, who represent a diagnostic challenge**."
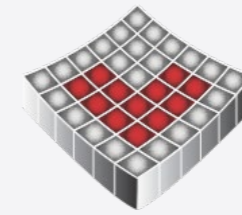
Frank Peacock, MD, FACEP

- Prof. Emergency Med, Assoc. Chair, Research Director, Baylor College of Med (BCM)
- 300+ publications
- **Cardiac biomarker Key Opinion Leader**
- Co-editor *Cardiac Emergencies, Short Stay Management of Heart Failure*

"With approximately eight million emergency department visits annually in the U.S. with chest pain as the chief complaint, there is an urgent and large unmet clinical need for a biomarker panel to rule out patients who do not require a cardiac catheterization and/or to decrease the time for ruling in inconclusive patients. Although we have a few single biomarkers for use in the emergency department, the development of a **multi-analyte diagnostic** test incorporating clinical patient variables and algorithmic analysis would be <u>**invaluable and represents a game-changer for clinical medicine.**</u>"

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APPENDIX D:

ADDITIONAL HART TESTS

Prevencio utilizes machine learning (AI) + <u>multiple</u> blood proteins + proprietary algorithms to…

…deliver improved cardiovascular diagnostic & prognostic accuracy that…

…results in significantly more accurate results than standard-of-care stress tests and clinical risk scores

HART TEST — PAD
Peripheral Artery Disease

HIGHLIGHTS *- HART PAD TEST*

/ **Peripheral artery disease (PAD**), a global health problem with **202 million people** diagnosed

/ Exists a need for alternative means for evaluating Peripheral artery disease (PAD)

/ A prospective cohort of **355 patients** referred for diagnostic peripheral angiography and/or coronary angiography **to Massachusetts General Hospital** were enrolled in the CASABLANCA Study

/ **Predictors of ≥50% stenosis** in at least one peripheral vessel were identified with **Machine Learning** & **200+ clinical variables and 109 protein biomarkers**

/ Final score has 1 clinical variable (History of hypertension) and 6 biomarkers

/ Angiopoietin-1 (blood supply), Eotaxin-1 (plaque), Follicle Stimulating Hormone (blood vessels), Interleukin-23 (up-regulates plaque/inflammation), Kidney Injury Molecule-1 (cardiorenal syndrome), and Midkine (plaque infiltration & inflammation)

SOLUTION *HART PAD TEST*
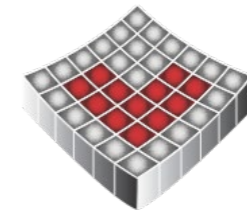
Prevencio HART PAD Test Nov 2017 AHA — Scientific Sessions

- AUC 0.85; 5-point score
- 98% Negative Predictive Value (NPV) for Score = 1
- 86% Positive Predictive Value (PPV) for Score = 5

European Society of Cardiology (ESC) 2018 — Scientific Sessions

In a prospective cohort study for Diabetic Mellitus (DM), a clinical/ biomarker score with high accuracy for predicting the presence of PAD and need for re-vascularization inpatients with and without DM.

Results were comparable to those patients without DM.

- AUC 0.85; 5-point score
- 100% Negative Predictive Value (NPV) for Score = 1
- 95% Positive Predictive Value (PPV) for Score = 5

HART PAD 5-POINT SCORE

Score = 1: Negative Predictive Value (NPV) = 98%
Score = 5: Positive Predictive Value (PPV) = 86%

5-Point Score

as a function of Stenosis

Mean Stenosis depicted by
Red Circles .

Whiskers = SD

1 = <5% Mean Stenosis
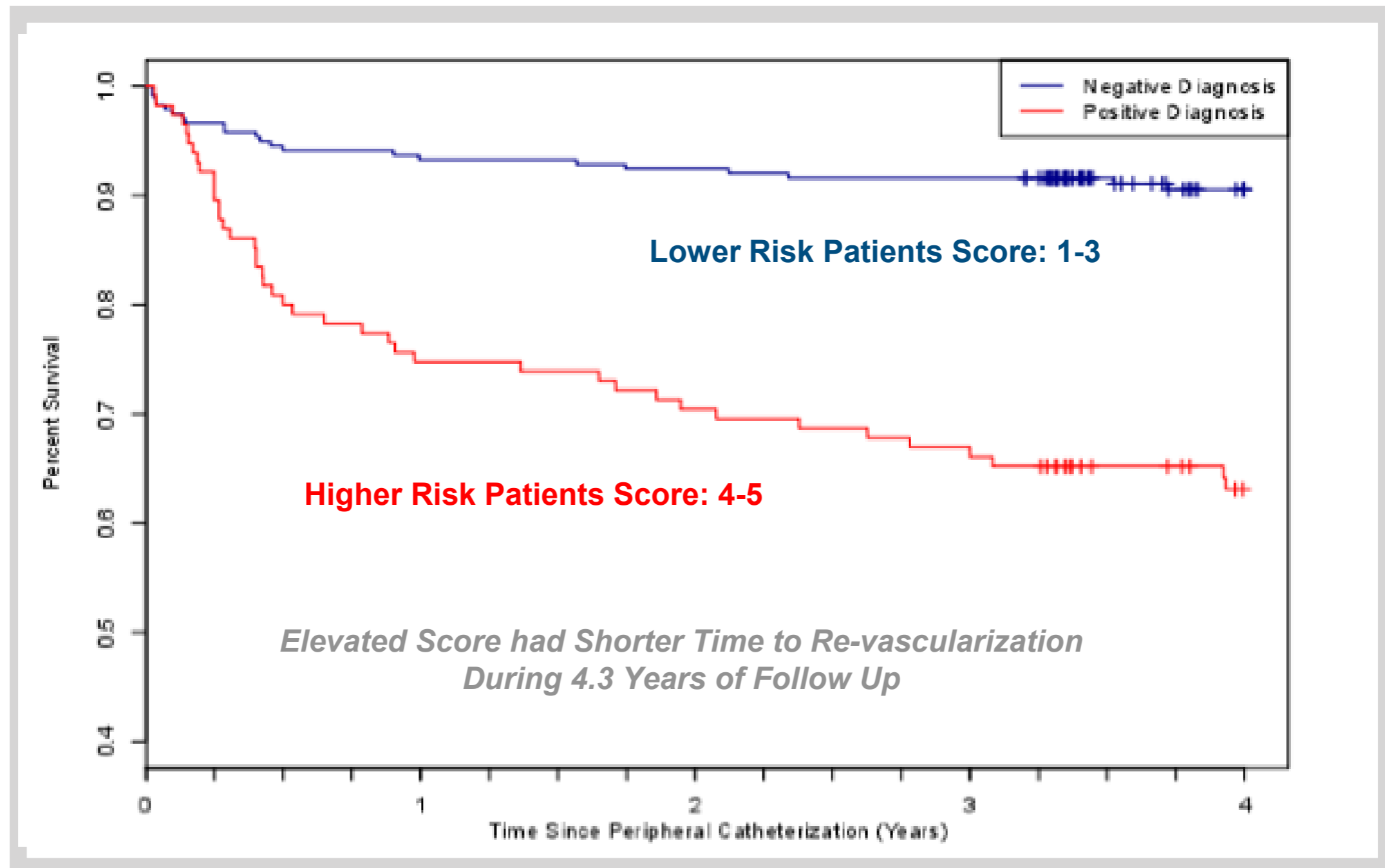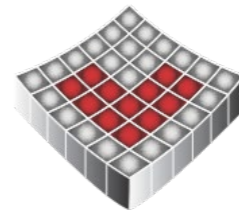**3** = <40% Mean Stenosis
5 = ~80% Mean Stenosis
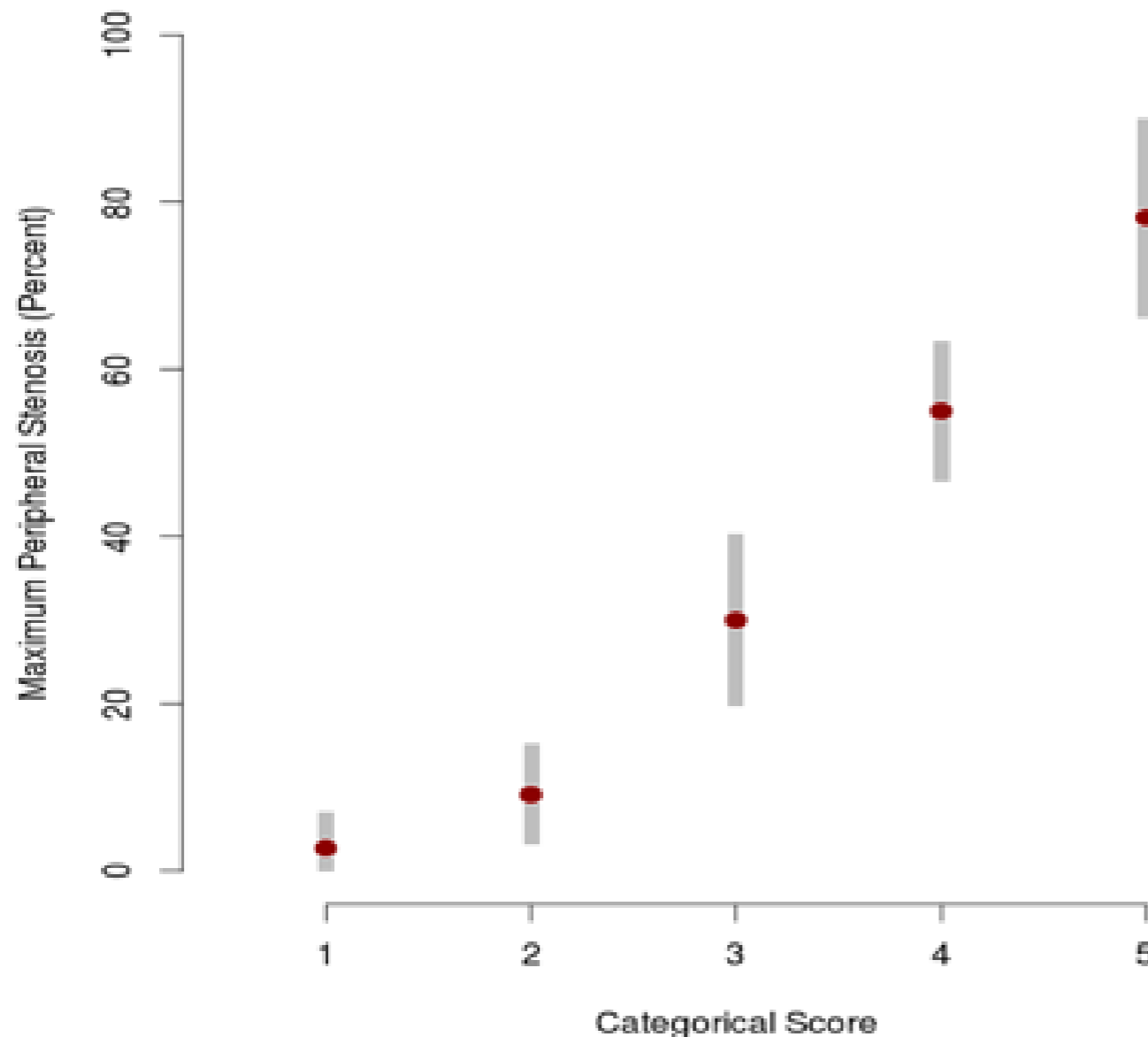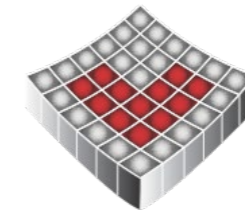
HART PAD 5-POINT SCORE

**Kaplan-Meier Curve Depicting Time to Next Peripheral Re-vascularization**

HART TEST — AS
Aortic Stenosis
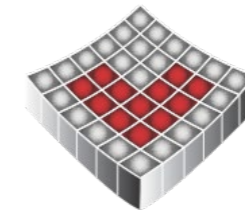
HIGHLIGHTS *- HART AS TEST*

/ Calcific aortic stenosis (AS), most common cause of valvular heart disease in the Western world, present in >20% of older adults

/ Without aortic valve replacement (AVR), ~50% patients with symptomatic severe AS survive 1 yr

/ Severe AS, defined by an aortic valve area (AVA) < 1.0 cm2

/ Machine Learning with 109 proteins and >200 clinical variables

/ Final diagnostic score: 1 clinical variable (Age) & 3 biomarkers

/ NT-pro BNP (myocardial stress); von Willebrand Factor (platelet adhesion/stress); Fetuin A (calcification)
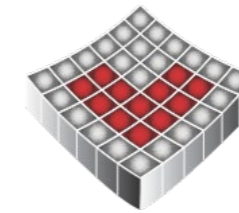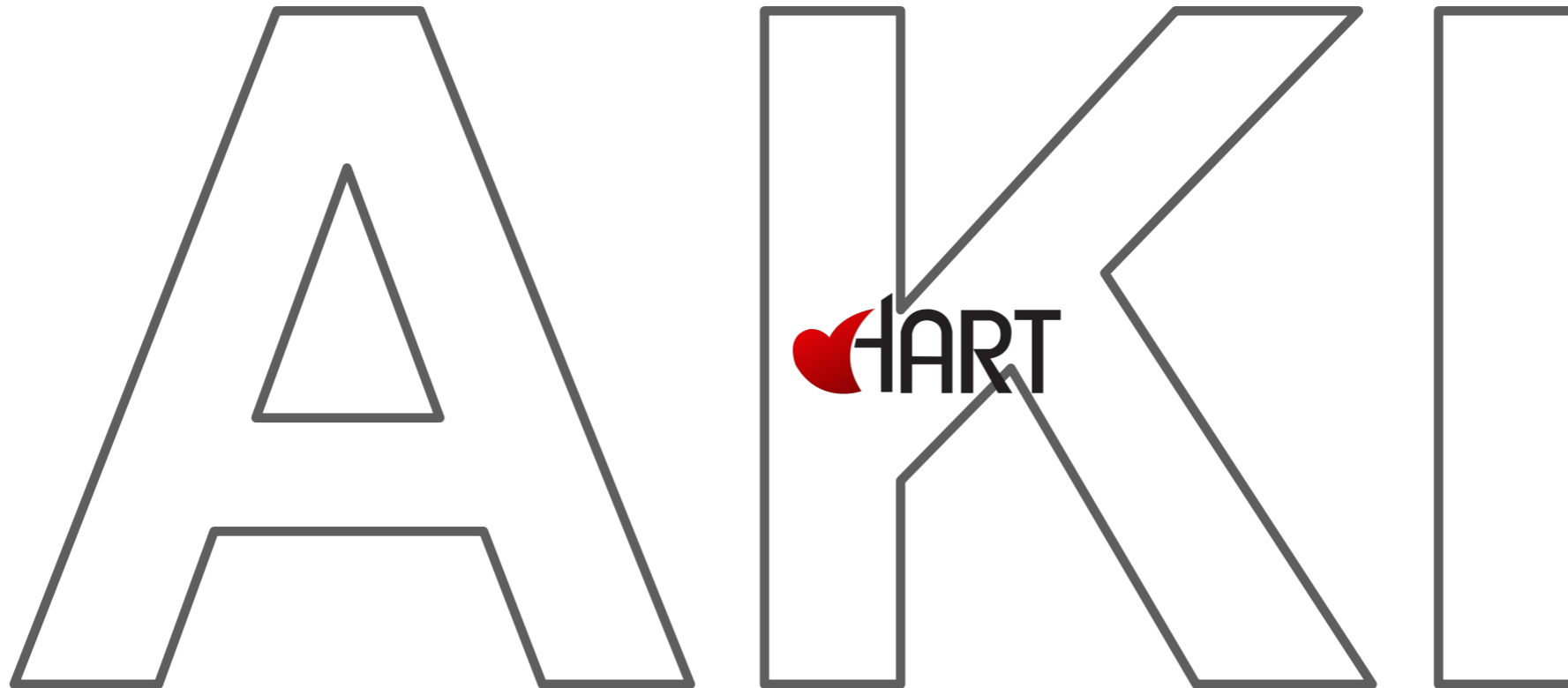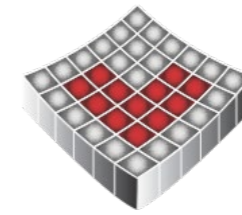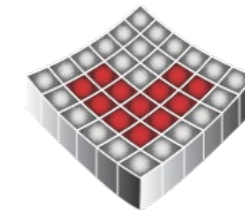
SOLUTION *HART AS TEST*

Prevencio HART AS — Aortic Valve Stenosis Presentation

Mar 2018 ACC — Scientific Sessions

- AUC = 0.76
- 98% Negative Predictive Value (NPV)
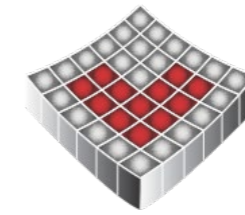- 76% Sensitivity (Sn); 65% Specificity (Sp)

HART TEST — AKI
Acute Kidney Injury

HIGHLIGHTS *- HART AKI TEST*

/ The number of cardiac catheterization or Percutaneous Intervention (PCI) cases resulting in AKI *rose almost 3-fold* from 2001 to 2011. Prevention strategies, such as the HART AKI test, are needed for at-risk patients to reduce future AKI

/ Machine Learning with 109 proteins and >200 clinical variables

/ Final prognostic score: 2 clinical variables (history of diabetes, blood urea nitrogen to creatinine ratio) & 4 proteins

/ HART AKI test algorithmically assesses two proteins (C-reactive protein and osteopontin) that have a positive/direct association with AKI risk, and an additional two proteins (CD5 antigen-like and Factor VII) that have a negative/indirect association with AKI risk

/ HART AKI had an area under the receiver operating characteristic curve (AUC) of 0.82 (p<0.001) for predicting procedural AKI.

HIGHLIGHTS *- HART AKI TEST*

/ HART AKI had AUC = 0.82 (p<0.001). The optimal score cut-off had 77% sensitivity, 75% specificity, and a negative predictive value of 98% for procedural AKI. An elevated score was predictive of procedural AKI in all subjects (odds ratio=9.87; p<0.001).
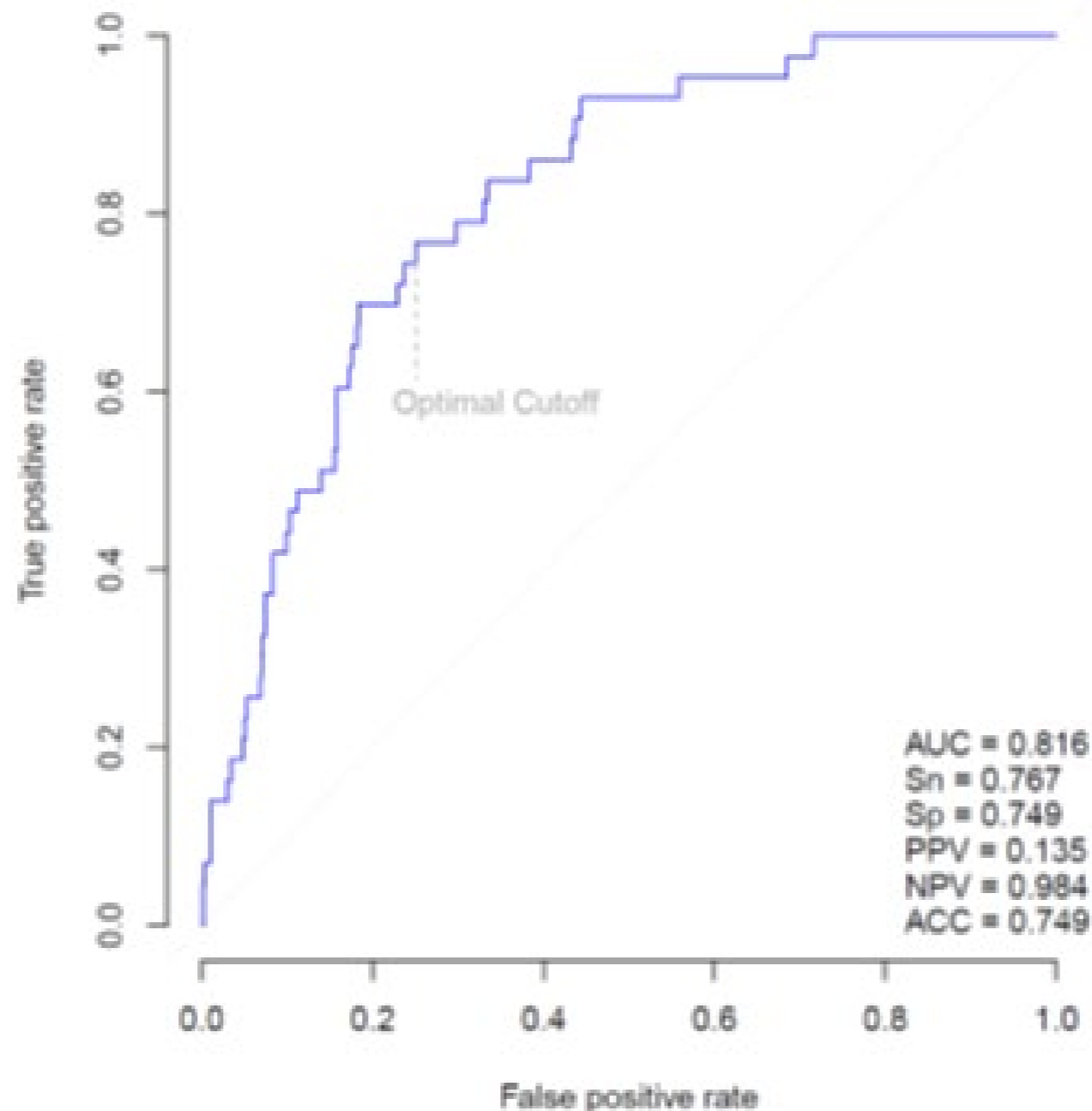
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APPENDIX E:

PEER-REVIEWED PUBLICATIONS & PRESENTATIONS

Co-Published Data w/ Mass General

16 Presentations & Publications (available on Prevencio website)

- **CASABLANCA** (Catheter Sampled Blood Archive in Cardiovascular Diseases) Study, Clinical Trials.Gov NCT00842868. 1251 Coronary &/or Peripheral Catheterization Subjects with follow up for 1+ years
- **HART CAD** Diagnostic Data *Late-breaking Science,* European Society of Cardiology (ESC) – August 2016
- **HART CAD** Diagnostic Data *Journal of American College of Cardiology (JACC)* Publication – March 2017
- **HART CVE** Prognostic Data, American College of Cardiology (ACC) Scientific Session – March 2017
- **HART CVE** Prognostic Data *American Journal of Cardiology (AJC)* Publication – July 2017
- **HART PAD** Diagnostic Data, American Heart Association Scientific Sessions – November 2017
- **HART AS** Diagnostic Data, ACC Scientific Session – March 2018; manuscript in process
- **HART CAD** & **HART CVE** Diabetic Data, American Diabetes Association Scientific Sessions – June 2018
- **HART PAD** Diagnostic Data, *Clinical Cardiology* Publication – June 2018
- **HART PAD** Diabetic Data, European Society of Cardiology (ESC) – August 2018
- **HART AS** Diagnostic Data, *Open Heart* Publication – November 2018
- **HART AKI** Prognostic Data, American Heart Association Scientific Sessions – November 2018
- **HART AKI** Prognostic Data, *Clinical Cardiology* Publication – January 2019
- **HART CAD & HART CVE** External Validation Data, ACC Scientific Sessions – March 2019
- **HART AKI** Diabetic Data, American Diabetes Association (ADA) Scientific Sessions – June 2019
- **HART CADhs** Diagnostic Data, American Heart Association Scientific Sessions – November 2019

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APPENDIX F:

COMPETITIVE LANDSCAPE
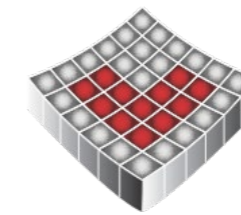
COMPETITIVE LANDSCAPE

Diagnostic Biomarker Landscape

*No Direct Competition* for **HART CAD/HART CADhs** in Emergency Department

Company/ Test	Test Components	Indications/ Accuracy	Limitations	Test Result Time*	End User Cost/ Reimbursement	FDA Clearance	Comments
Prevencio HART CAD	4-protein panel with clinical parameters (sex, prior percutaneous coronary intervention)	Diagnose ≥70% obstruction coronary arteries; **AUC=0.87** vs. coronary cath AUC=1 and stress tests=0.52 **5-Point Score PPV=93% NPV=91%**	None; accurate in stable and acute patients as well as diabetics, female, obese, & those with and without prior CAD, MI or percutaneous coronary intervention. No drug limitations	~30min-<2 hours	~$200-$400	Submitting in 2019; offering as Research Use Only (RUO) and LDT in 2018	Ideal for emergency rooms, physician offices, & for clinical trial enrichment. Prognostic for MI risk for 3.6 yrs. Point-of-care or large immunoassay platforms
CardioDx CORUS CAD	RNA expression levels of twenty-three genes plus sex and age	Diagnose ≥50% obstruction coronary arteries, which is not the typical cutoff for interventi__ AUC=0.79 myocardi__ imaging 40-point score	Not intended for use in patients with unstable angina, diabetes,** prior MI, __ __ chemotherapeutic agents	48-72 hours	~$1200/ Medicare reimbursed $1035 in	No FDA clearance; Lab Developed __t (LDT); __d must __ent to __porate lab for processing	Not applicable in emergency rooms where timely result (<2 hrs) is required. Has prognostic implications; targeting primary care physicians

CORUS CAD NO LONGER AVAILABLE EFFECTIVE JANUARY 2019

*   *Estimated*

** *~25% 65yo+ have diabetes in US; 422M diabetics in world (WHO)*

COMPETITIVE LANDSCAPE
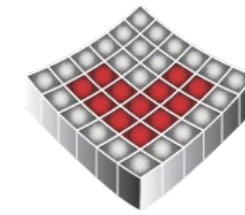
Prognostic Cardiac Risk Biomarker Landscape

/ **HART CVE (~1.5-2X Superior Accuracy)**

  / AUC = 0.79

  / Hazard Ratio 4.03

/ **GD Biosciences PULS Multi-Protein Test**

  / 5-year Risk for Coronary Heart Disease/ACS

   / AUC = Not reported

   / Hazard Ratio = 2.17

/ **TMAO Test**

   / Single "gut" metabolite

   / AUC = 0.68

   / Hazard Ratio = 2.54

/ **Lp(a) Test**

   / Single protein, 5-year Risk of MI, Stroke, CV Death, Unstable Angina, Revascularization

   / AUC = Not reported

   / Hazard Ratio = 1.41