CARDIO AI
HEART MATTERS

CARDIO AI: MONTHLY BRIEFING MEETING
April 27th, 2024

AGENDA

1. WELCOME: Introduction of new hires-Sampson Kontomah
2. Business Development Update and Working Groups-Sampson Kontomah
3. Metrics & Milestones-Sampson Kontomah
4. Fundraising-Investor update-Dr.Domenico Merante
5. Clinical Development Plan-Dr. Domenico Merante
6. Product Development Stage-Dr. Tamanna Nahar/Sampson Kontomah
7. Communication & Publication Strategy-Henrik Schou
8. Q & A
9. Closing Remarks-Dr. Domenico Merante

WELCOME TO THE MONTHLY BRIEFING MEETING!

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https://cardioailive.com

https://www.linkedin.com/showcase/cardioai

THE NEW QR CODE OF CARDIO AI!

NEW HIRES:

1. Henrik Schou, President Global Affairs, RWE, Market Research

Henrik Schou Background:

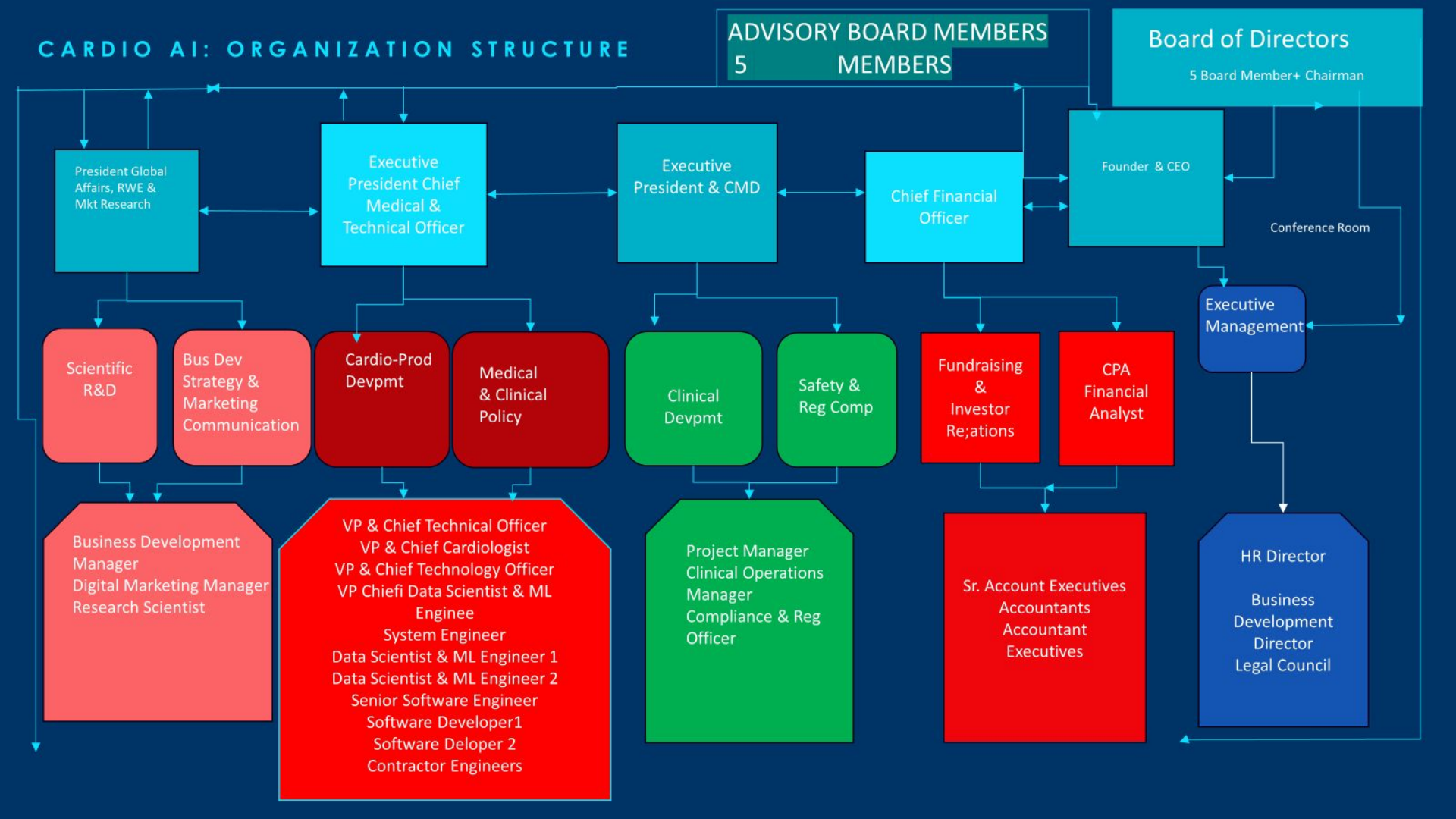
President level at Blue Chip Pharma in RD, Clinical Operations, Medical Affairs, Market Access and Regulatory Affairs.

Former Global Head of the Connected Pen System Franchise at SANOFI.

Former VP, Head of RWE at CSL-VIFOR and Chair of the Phase 4 Research Board.

2. Alka Jain: Chief Financial Officer: MBA, CFA

Alka Jain is a seasoned Chartered Financial Analyst (CFA)
executive with over 25 years' experience in finance, healthcare,
and technology.
She has background in banking, finance, and consulting,
and has helped healthcare organizations strategically position themselves,
leverage technology to achieve efficiencies, align their operations
with their mission and achieve profitable growth.
Alka studied BS Engineering-Economics from MIT
and MBA from Columbia Business School.
She's enthusiastic and committed to help drive Cardio AI
towards financial strength.


CARDIO AI: ORGANIZATION STRUCTURE
ADVISORY BOARD MEMBERS
5 MEMBERS
Board of Directors
5 Board Member+ Chairman
President Global Affairs, RWE & Mkt Research
Executive President Chief Medical & Technical Officer
Executive President & CMD
Chief Financial Officer
Founder & CEO
Conference Room
Executive Management
Scientific R&D
Bus Dev Strategy & Marketing Communication
Cardio-Prod Devpmt
Medical & Clinical Policy
Clinical Devpmt
Safety & Reg Comp
Fundraising & Investor Re;ations
CPA Financial Analyst
Business Development Manager
Digital Marketing Manager
Research Scientist
VP & Chief Technical Officer
VP & Chief Cardiologist
VP & Chief Technology Officer
VP Chiefi Data Scientist & ML Enginee
System Engineer
Data Scientist & ML Engineer 1
Data Scientist & ML Engineer 2
Senior Software Engineer
Software Developer1
Software Deloper 2
Contractor Engineers
Project Manager
Clinical Operations Manager
Compliance & Reg Officer
Sr. Account Executives
Accountants
Accountant
Executives
HR Director
Business Development Director
Legal Council

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CARDIOVASCULAR SITUATIONAL PROBLEM

Since 2021, Cardiovascular Disease has been the leading cause of death globally

HEART DISEASE in UNITED STATES:

A recent study by BMJ Quality and Safety concluded that nearly 800,000 Americans die or are permanently disabled by diagnostic errors each year.
According to CDC: One person dies every 33 seconds of CVD.
Two people die every second of coronary heart disease (CAD).
About 695,000 people died of heart disease in 2021.
Heart disease cost $239.9 billion each year from 2018-2019.

HEART ATTACK in US:

A person suffers from a heart attack every 40 seconds.
1 in 5 heart attacks are silent.
805,000 have a heart attack each year:
605,000 experience first heart attack.
200,000 are people who already had a heart attack.

HEART DISEASE in EUROPE:

Cardiovascular diseases (CVD) remain the leading cause of mortality and morbidity in Europe.
The most common types of CVD are coronary heart disease which can lead to heart attacks or heart failure, strokes and aortic diseases.

HEART ATTACK in EU:

In 2020, CVD was responsible for more than 1.8 million deaths in EU and UK.
Standard rate of deaths from coronary heart disease is 1,194 deaths per year/million inhabitants.

MARKET GAP:

Current diagnostic and treatment methodologies lack precision and consistency leading to delayed detection, sub-optimal treatment plans, and increased mortality rates.

FINANCIAL:

$239.9 Billions is spent in hospital readmission and retreatment which almost results in loss of lives.

COSTS:

Total annual cost of heart disease in US = $320 billion.
Heart Failure annual cost is $180 billion.
One million Emergency room visits in US for cardiac problems.

Overall CVD is estimated to cost to EU economy 282 billion euros a year (Sept. 2023).

CVD in ASIA-PACIFIC REGION:

CVD is the leading cause of death in the Asia-Pacific, with the largest increase in premature deaths occurring in East Asia, South Asia and South-East Asia over the past 20 years.
In 20129 alone, over ten million people died of heart disease in Asia, making up 35% of all deaths in the region.

HEART DISEASE in AFRICA REGION:

About 80% of CVD deaths worldwide occurred in developing countries.
In 2019, >1 million deaths were attributable to CVD in Sub-Saharan Africa, which Constituted 5.4% of all global CVD-related deaths and 13% of all deaths in Africa (Dec. 2023).

CARDIO AI COMPETITIVE ANALYSIS LANDSCAPE

Company Name	Logo	Convenience	Affordable	Expensive	Inconvenience	Multidata	Diagnostic Precision	Personalized Treatment	Prognosis of Treatment Response	MI	HF	CHD	CA	AI & ML
CARDIO AI		✓	✓	×	×	✓	✓	✓	✓	✓	✓	✓	✓	✓
CLEERLY		×	✓	×	✓	×	×	×	×	✓	×	×	×	x
IDOVEN		✓	✓	×		×	×	×	×	×	×	×	✓	✓
ARTERYS		×	✓	×	✓	×	×	×	×	×	×	×	×	✓
CARDIOLOGS		×	✓	×	✓	×	×	×	×	×	×	×	×	✓
ULTROMICS		×	✓	×	×	×	✓	×	×	×	✓	×	×	✓
DIGITAL DIAGNOSTICS		✓	✓	×	×	×	×	×	×	×	×	×	×	✓
HEARTBEAT AI		✓	✓	×	×	×	×	×	×	×	×	×	×	✓
HEARTHERO		×	✓	×	✓	×	×	×	×	✓	×	×	×	×
iCARDIO.ai		✓	✓	×	×	×	×	×	×	×	✓	×	×	✓
AlgoDX		✓	✓	×	×	×	×	×	✓	×	×	×	×	✓
Zebra Medical Vision		✓	✓	×	×	×	×	×	×	×	×	×	×	✓
ATOMWISE		✓	✓	×	×	×	×	×	×	×	×	×	×	✓

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BUSINESS DEVELOPMENT -UPDATE AND WORKING GROUPS

Health & Academic Institution, Hospitals, Clinics, and Health Facilities

RECOGNITION: Professor Jeffry B. Lansman
University of Philippines: Training & Tertiary Hospital
POTENTIAL MARKET: 4000 Hospitals
Dr. Domenico Merante-Switzerland Branch & Fundraising
Dr. Tamanna Nahar-New York Health+Hospitals systems

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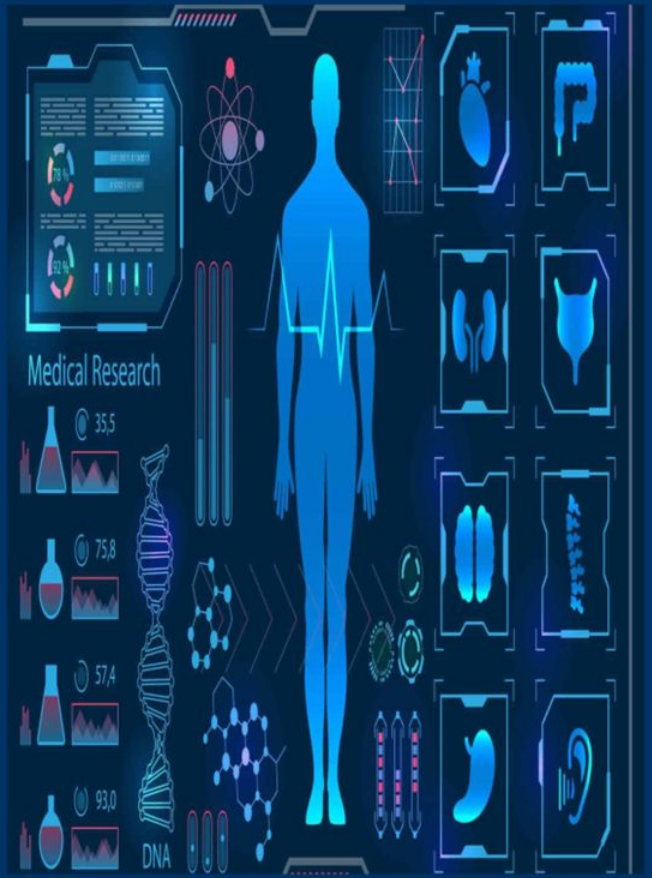
TRACTION

TARGETED EARLY ADOPTERS

HEALTH INSTITUTIONS AND HOSPITALS

1. Mayo Clinic- Rochester Minnesota
2. Nationwide Children Hospital-Columbus Ohio
3. OhioHealth-Dublin Ohio
4. California Health Systems-CA
5. Mount Sinai-Hospital New York-NY
6. Texas Children Hospital Systems-Houston Texas
7. John Hopkins Hospital—Baltimore MD
8. New York Presbyterian Hospital-NY
9. Massachusetts General Hospital—Boston
10. New York-Health + Hospital System



Working Groups Update (Lead and co-Lead role)

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- **Executive Management Group** (S. Kontomah, D. Merante): three meetings to date between March and April;
- **Fundraising Group** (S. Kontomah, D. Merante): ongoing interactions;
- **Clinical Development Group** (D. Merante, T. Nahar);
- **Safety & Regulatory Compliance Group** (D. Merante, T. Nahar);
- **Product Development Group** (T. Nahar, M. Budhiraja);
- **Cardio AI Advisory Board Group** (D. Duffee, C. Levy);
- **Scientific Advisory Board Group** (D. Vigerust, J. Lansman);
- **Business Development Strategy Group** (H. Schou, C. Levy);
- **Scientific Research & Development Group** (H. Schou, D. Vigerust).

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TRACTION: KEY MILESTONES METRICS 2024 & 2025

CARDIO AI: GROWTH TRAJECTORY	DATES:	METRICS & MILESTONES	STARTED	PENDING	ACHIEVED
	January 02, 2023	Scientific Research	✓	✓	✓
	February 14, 2023	Draft Blueprints	✓	✓	✓
	March 06, 2023	Run-Refocus Group-Gather feedback	✓	✓	✓
	May 10, 2023	UI Design Test	✓	✓	✓
	July 12, 2023	4 Stages of AI Model algorithms Design	✓	✓	✓
	March 20, 2024	Clinical Development, Retrospective Data Collection & Customer Development	✓	×	×
	TBD	AI Model Training & Testing	×	×	×
	March 16, 2024	Team Building & Inauguration	✓	✓	✓
	February 20, 2024	Company Website Development	✓	✓	✓
	February 5, 2024	Company Emails & Internal Organization setup	✓	✓	✓
	March 17, 2024	Working Groups Development	✓	✓	✓
	January 8, 2024	Clinical Trials & Testing Design	✓	✓	✓
	March 20, 2024	Organization Formation: Delaware C-Corp	✓	✓	✓
	March 20, 2024	CAP-TABLE Formation	✓	✓	✓
	January 05, 2024	MVP	✓	✓	×
	TBD	Beta Testing	×	×	×
	TBD	Final Product	×	×	×
	March 28, 2024	Patent Registration	✓	×	×
	March 20, 2024	Trade Mark Registration	✓	✓	×
	TBD	Clinical Trials Testing Early Stage	×	×	×
	TBD	FDA & EMA Advice	×	×	×
	TBD	Clinical Trials Testing Confirmatory	×	×	×
	TBD	Regulatory Agencies Compliance	×	×	×
	March 23, 2024	Publication Strategy 2024/2025: ESC; ISPOR US; ISPOR EU; AHA. Five publications focusing on Cardio AI med. device; target indications; retrospective data; study program/designs.	✓	×	×
	March 22, 2024	Target Indicators Design, Data Collection Protocols, Institutional Review Board Guide	✓	✓	✓

Fundraising Working Group

A fundraising group for Cardio AI is responsible for securing funding to support the development, marketing, and growth of CARDIO AI technology. This group would consist of individuals with expertise in finance, venture capital, fundraising, and business development.

Based on contribution from each member, the fundraising group of Cardio AI will secure the necessary capital to advance the technology, expand market reach, and achieve the company's strategic goals.

GROUP MEMBERS

Sampson Kontomah-Founder & CEO-Group Leader-Executive Management
Domenico Merante-Executive President & CMD-Lead Clinical Development
President Global Affairs, RWE & Market Research-Lead R&D
Tamanna Nahar-Executive President & CMTO-Lead Product Development
Professor Jeffry B. Lansman-Advisory Board Chairman
David Vigerust-Scientific Advisory Board Member-Lead Scientific Research
Douglas Duffee-Advisory Board Member
Salem Bagami-Advisory Board Member
Charles Levy-MD, MBA
Antonio Mancuso-Business Development Director

Fundraising Working Group:Tasks

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1. **Investor Relations:** Building relationships with potential investors, presenting the business case for Cardio AI, and negotiating investment terms.
2. **Financial Projections:** Developing financial models, forecasts, and projections to demonstrate the potential return on investment for backers.
3. **Pitch Development:** Crafting compelling pitches and presentations to attract investors and secure funding for Cardio AI.
4. **Due Diligence:** Conducting thorough due diligence processes to ensure that potential investors have a clear understanding of the technology, market opportunity and risks associated with investing in Cardio AI.
5. **Networking:** Leveraging industry connections, attending conferences, and participating in networking events to identify and engage potential investors.
6. **Fundraising Strategy:** Developing a fundraising strategy that aligns with the company's growth objectives and financial needs.
7. **Compliance and Legal Considerations:** Ensuring that all fundraising activities comply with relevant regulations and legal requirements.

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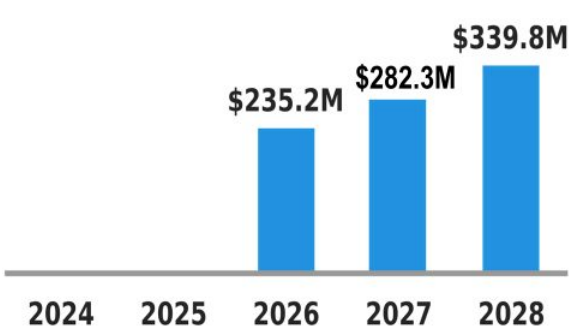
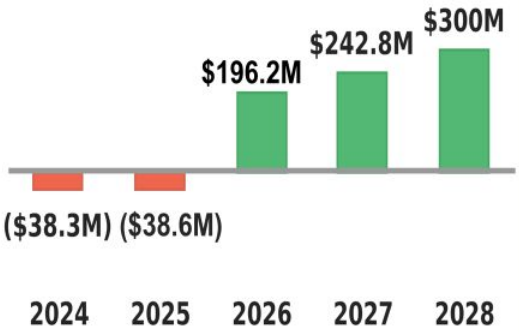
FINANCIAL PROJECTIONS



Revenue

Expenses & Costs



Profit

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FUNDING

SALES

Revenue would be obtained from product/services sales

Lead Investor Min = $5,000000
Investor Min = $1,000000

Amount requested from investors

Runway

Liquid needed to launch product

Shares

Number of shares issued = 15,000.000

FUNDING ROUNDS & MILESTONES

Tech Infrastructure
Data collection & clinical Development

Diagnosis Precision Mod: AI Algorithms Training, Clinical Trials & Validation, Reg Comp

Precision Medicine Mod: AI Algorithms Training, Clinical Validation, Reg Comp, Market Expansion

Diagnostic Precision Mod: AI Algorithms Training, Clinical Validation, Reg Comp, Market Expansion

Pitching: to date status since March 16, 2024

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- **Two ‘Dry Run’ internal pitches** (within Ex. Management Team and BD): 18 March and 4 April;
- **Three external meetings and ‘light pitching’**: 19 March, 25 March, 5 April;
- **One ‘5 minute recorded’ light pitching** to pharma company submitted through online application: 7 April.
- **Two more external meetings and light pitching** with CEO and Chief Client Officer of a global organization: 10 April, 23 April.

CLINICAL DEVELOPMENT PLAN: STRUCTURE/ACTIVITIES

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1. Goals and Objectives
2. Background/Core Target indications
3. Access current Landscape
4. Stakeholder Engagement
5. Regulatory & Compliance Consideration
6. Clinical Studies: Design, Validation and Evidence Generation
7. Data Acquisition & Management
8. Technology Development & Integration
9. Education & Training
10. Commercialization & Market Access
11. Monitoring & Evaluation
12. Key Clinical Development Risks and Mitigation
13. Supporting References/Literature

Product Development Stage

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Technology Infrastructure: API Gateway, Modern Web & Mobile Application Development

AI Algorithms

1. Neural Network: Backpropagation
2. Multimodal Modal Model: Fusion Techniques, Attention Mechanism: Cross Modal Attention, Self Attention
3. Multimodal Transformer model: Backpropagation
4. Meta Learning

Neural Network:

a. DNN
b. CNN
c. RNN
d. CRNN
e. Autoencoders
f. GANs
g. LSTM
h. GRU
i. XAI
j. GNN
k. GCN
.
l. Graph Autoencoders

Transformer Models: Backpropagation

1. Forward pass-Self attention mechanism & feed forward networks
2. Loss calculation-comparison of mod prediction to ground truth labels: LF'
3. Backward pass:calculate gradients of the loss function with respect to MP'
4. Gradient Descent Optimization-calculated gradients to update MP'
5. Hyperparameter tuning-adjustment for optimal convergence & gen'
   Backpro' optimize hyperparameters-learning rates, reg strengths, network architect to enhance performance in prediction.
6. Mini batch training- improve training efficiency & stability, frequent update of parameters, generalize better
   Patient data
7. Regularization-Backpro' incorporate regularization techniques like LI. L2-dropout or batch normalization to prevent overfitting and improve generalization of new patient cases.

DATA-SETS MULTI-MODAL MODEL : Biomarkers : Troponin : NR-POP = 99th, CK-MB: Ref Range = 0-25 IU/L, BNP Risk Level = above 400 pg/mL = HF,

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Structured Data-MI

1. Diagnostic codes
2. Symptoms-(exp: chest pain)
3. Diagnostic Test-(exp: ECG, Echocardiogram)
4. Blood Test-(Troponin, CK-MB: ,C-Reactive Protein)
5. Patient History
6. Risk Stratification
7. Genetics

Structured Data-HF

1. Symptoms-(exp: SOB, Swelling in the legs, angles abdm).
2. Physical Exam-(Exp: Edema, crackles in the lungs
3. Diagnostic Test-(ECG, Echocardiogram)
4. Blood Test-(BNP, electrolytes level, lung test, kidney test)
5. Medical History
6. Risk Factors
7. Physical Activity

Imaging Data -MI

1. Echocardiogram
2. Electrocardiogram (ECG)
3. Cardiac MRI
4. Coronary Angiography
5. Nuclear Stress Test
6. Portable Chest-X Ray

Imaging Data-HF

1. Echocardiogram
2. Electrocardiogram (ECG)
3. Cardiac MRI
4. Cardiac CT
5. Holter Monitor
6. Portal Chest X Ray

Unstructured Data-MI

1. Clinical Notes
2. Emergency Room Reports
3. Procedure Reports
4. Consultation Notes
5. Discharge Summaries
6. Rehabilitation Notes

Unstructured Data-HF

1. Clinical Notes
2. Progress Notes
3. Consultation Notes
4. Discharge Summaries
5. Rehabilitation Notes

DATASETS-MULTI-MODEL MODEL

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Structured Data-CHD

1. Prenatal History
2. Family History
3. Physical Examination Findings
4. Neonatal History
5. Risk Factors
6. Developmental Milestones
7.

Imaging Data-CHD

1. Echocardiogram
2. Fetal Echocardiography
3. Electrocardiogram (ECG)
4. Cardiac MRI
5. Cardiac CT
6. Transesophageal Echocardiography
7. Angiography
8. Nuclear Imaging
9. Holter Monitor

Unstructured Data-CHD

1. Clinical Notes
2. Surgical Reports
3. Cardiac Catheterization Reports
4. Echocardiography Notes
5. Genetic Testing Results
6. Growth and Developmental Assessments
7. Rehabilitation and Therapy Notes
8. Consultation Notes
9. Long-Term Follow-Up Notes

Structured Data-CA

1. Symptoms-(Exp: SOB, Palpitation, Rapid Heartbeat, Chest pain)
2. Medical History
3. Risk Factors-(Exp; BP, diabetes, thyroid disorders, nicotine, caffeine)
4. Physical Examination Findings-(irregular heart sounds & abnormal pulse
5. Electrophysiological Studies (EPS)
6. Blood Test-(Troponin, Electrolytes level, thyroid test)
7. Genetics

Imaging Data-CA

1. Electrocardiogram
2. Holter Monitor
3. Implantable Loop Recorder
4. Electrophysiological Studies (EPS)
5. Echocardiogram
6. Cardiac MRI
7. Cardiac CT
8. Implantable Cardioverter Defibrillator (ICD)
9. Tilt Table Test

Unstructured Data-CA

1. Symptoms-(Exp: SOB, Chest pain, Palpitation)
2. Clinical Notes
3. Event Recorder Logs
4. Cardiac Device Data
5. Electrophysiology Studies Report (EPS)
6. Consultation Notes

Publication plan and key Items

- Medical core story (indications, unmet need and CARDIO AI benefits)
- Media strategy plan (facebook, linkedIn, Twitter, etc)
  - Development of compliant material (key messages, core story, CARDIO AI offerings, etc)
- Medical congresses, Publications, journals (posters, editorials, manuscripts. ISPOR, AHA, ESC, MedTech, other)
  - European Society of Cardiology (ESC). August, London. 1st March Abstract submission deadline.
  - ISPOR : May, Atlanta, closed for abstract submissions
  - ISPOR : November, Barcelona. 6th June Abstract submission deadline.
  - AHA : November , Chicago. 6th June Abstract submission deadline .
- Ad.boards (unanswered medical questions, non commercial in nature)
  - Six adboards across the USA – can be online
- CARDIO AI Sponsored meetings (commercial in nature)
- Market Research (to follow market research guidelines)

Relevant Congresses 2024

Event	Date	Location
J.P. Morgan Healthcare	Jan. 8-11	San Francisco, California
Consumer Electronics Show (CES 2024)	Jan. 9-12	Las Vegas, Nevada
American Academy of Orthopedic Surgeons Annual Meeting	Feb. 12-16	San Francisco, California
RAPS Global Regulatory Strategy Conference 2024	March 5-7	Baltimore, Maryland
HIMSS	March 11-15	Orlando, Florida
American College of Cardiology's Annual Scientific Session (ACC.24)	April 6-8	Atlanta, Georgia
American Association of Neurological Surgeons Annual Meeting	May 3-6	Chicago, Illinois
Society of Robotic Surgery Annual Meeting	June 20-23	Orlando, Florida
American Diabetes Association's 84th Scientific Sessions	June 21-24	Orlando, Florida
North American Spine Society Annual Meeting	Sept. 25-28	Chicago, Illinois
American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting	Sept. 29 - Oct. 2	Washington, D.C.
AdvaMed's The MedTech Conference	Oct. 15-17	Toronto, Canada
Cardiovascular Research Foundation's Transcatheter Cardiovascular Therapeutics (TCT 2024)	Oct. 27-30	Washington, D.C.
American Heart Association Scientific Sessions	Nov. 16-18	Chicago, Illinois

Top medtech confe

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Adherence to the below SOPs will help to manage communication risks, ensure regulatory, code of practice compliance and maintain consistency of medical communications

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- 1. Review and Approval of Promotional Materials.
- 2. Non-Promotional Scientific Exchange.
- 3. Interactions with Healthcare Professionals (HCPs):
- Medical Inquiry Handling.
- 5. Adverse Event and Product Complaint Reporting.
- 6. Training and Education.
- 7. Digital and Social Media Communications.
- 8. Document Management and Retention.

1. Certification and approval of material process to be established
2. Skeleton SOPs to be developed.
3. Training logs to certify SOP proficiency.

Closing Remarks

- **Substantial progress of CARDIO AI made over the last couple of months** (core team completed; registration of stock corporation company; slide deck definition; provisional patent application; infrastructure of CARDIO AI platform; kicking off with investor identification/selection/interaction and pitching; networking with external stakeholders and online applications; draft publication/communication strategy; three abstracts to AHA and ISPOR EU 2024);
- **Kicking off with Working Groups** from May on for improving collaborative effort and activities implementation;
- Need to establish an **internal collaborative effort** to optimize pitching opportunities, create a reliable investor platform, and **secure first round of fundings**;
- Keep focus on **CARDIO AI MISSION** (***'to provide precise, rapid cardiovascular care to help people suffering from cardiovascular diseases all around the world'***) and on **CARDIO AI PRIMARY GOAL** (***'to help cardiologists and healthcare providers to make precise diagnosis of heart attack (MI), heart failure (HF), congenital heart disease (CHD) and prognosis prediction of cardiac arrhythmias (CA) by bringing precision cardiac care to a wide range of health care settings to reduce mortality death rates and enhance optimal patient outcome worldwide'***).
- **All Together, from now on and more than ever before, we can really make a significant impact on people's life through this project!**

THANK YOU FOR YOUR ATTENTION!