



Universitair Medisch Centrum  
Utrecht

# Molecular Imaging & Diagnostics in Cardio-Vascular Disease

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*The Netherlands*

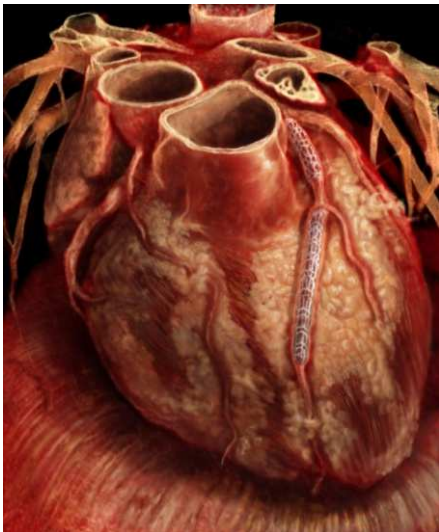
# Early detection of disease

Organ level

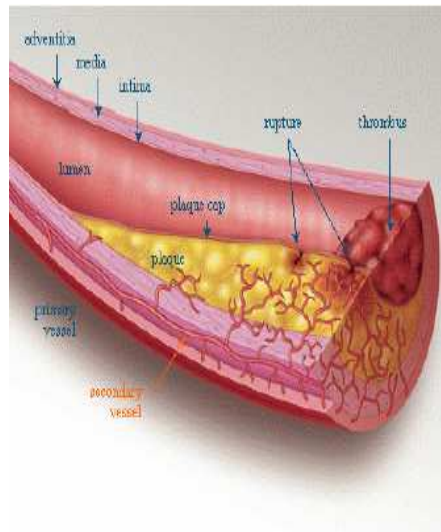
Tissue level

Cellular level

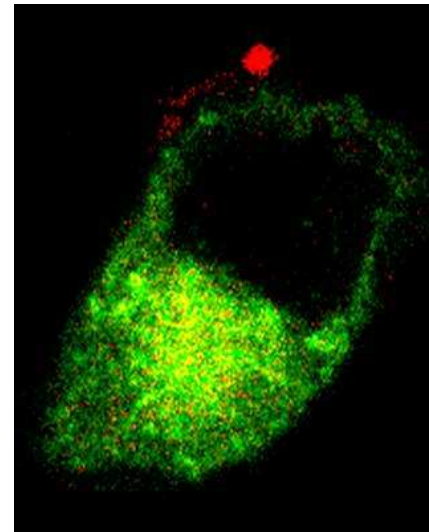
Molecular level



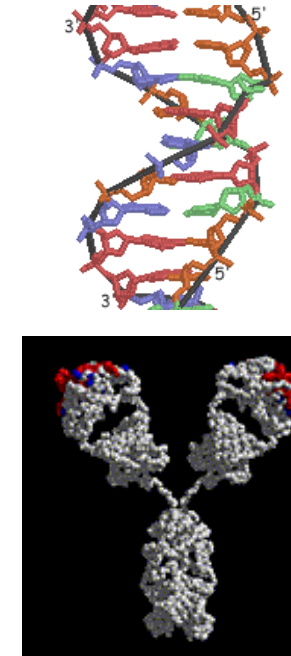
Detection,  
Tumor burden



Angiogenesis  
Growth kinetics  
Drug delivery



Tumor markers  
Drug targeting

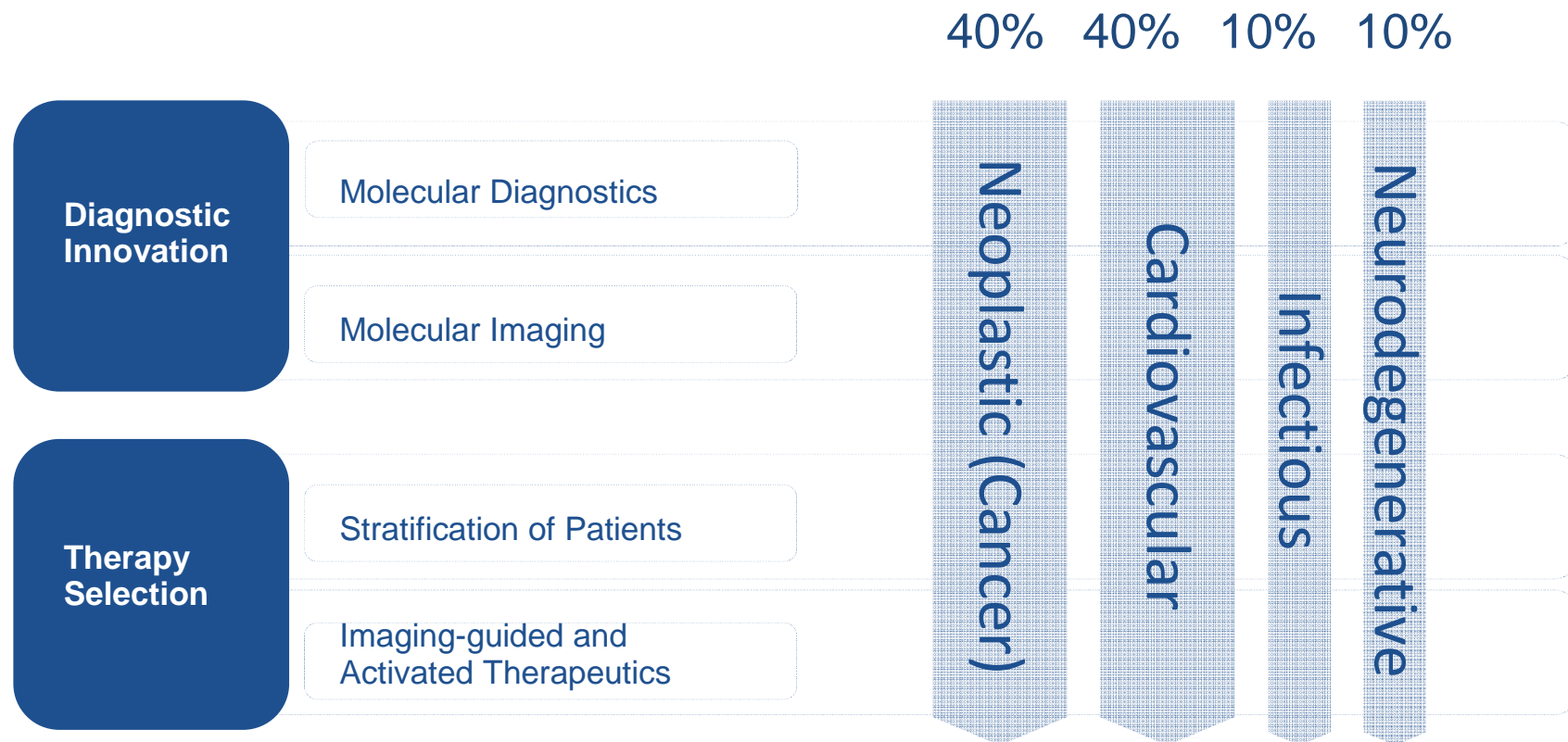


Genetic mutations  
Biomarker testing  
Gene therapy

**From symptomatic to preventive medicine**

# Scope of the CTMM Research program

## Budget: 300 M€ 2008 - 2014



Preferred project: combination of technological breakthroughs and translation into the clinic!



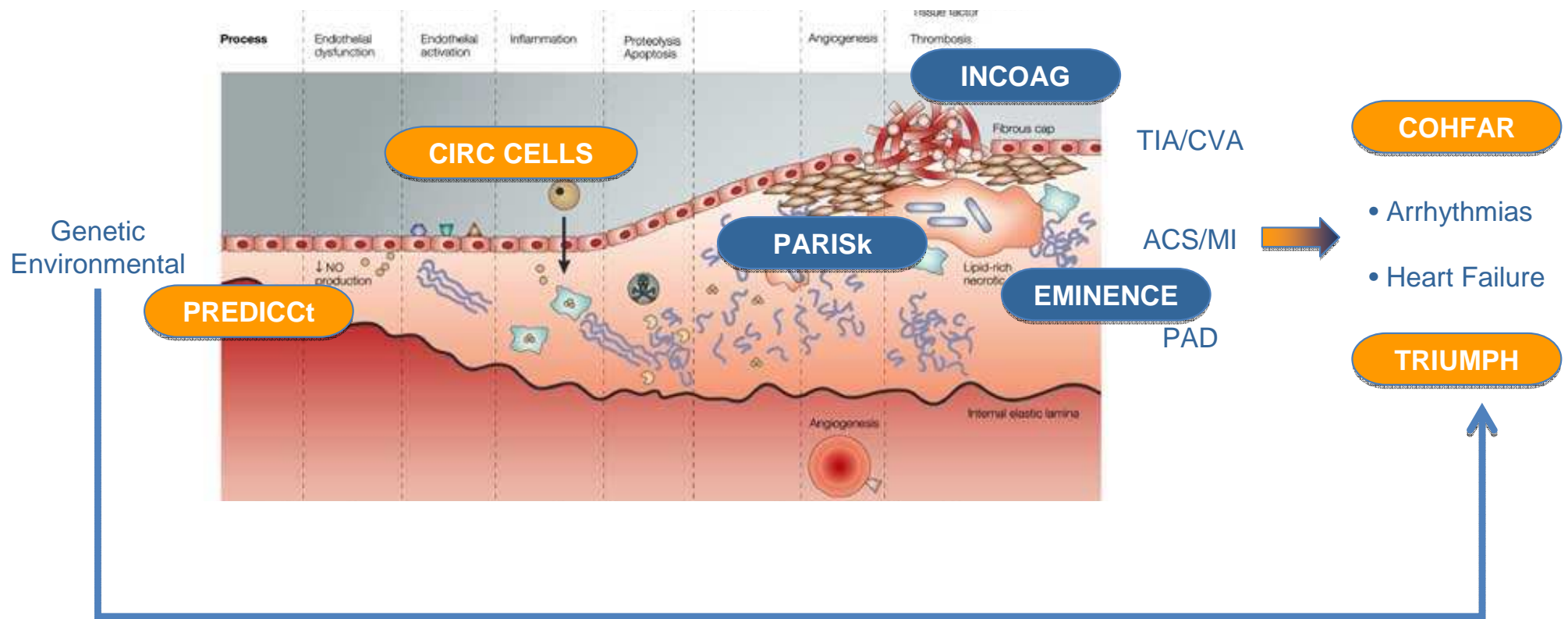
# Cardiovascular Disease

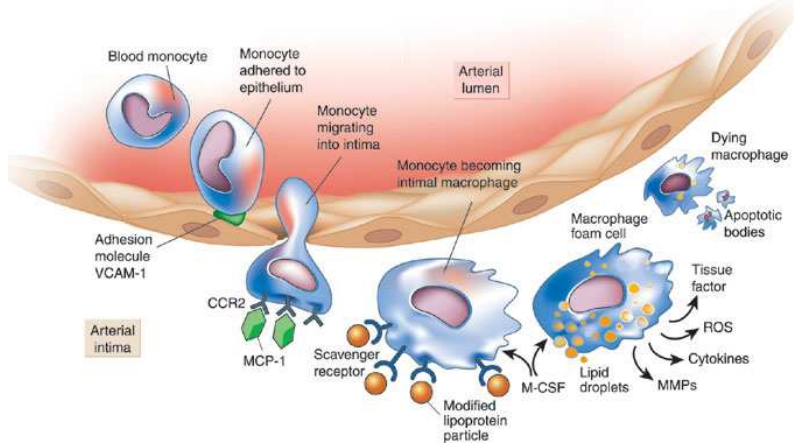
RISK FACTORS

VASCULAR DAMAGE

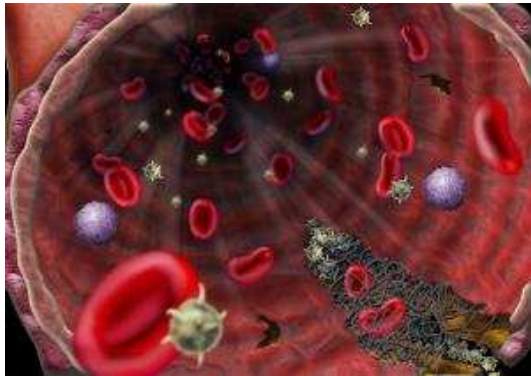
ISCHEMIC  
EVENT

LONG-TERM  
OUTCOME

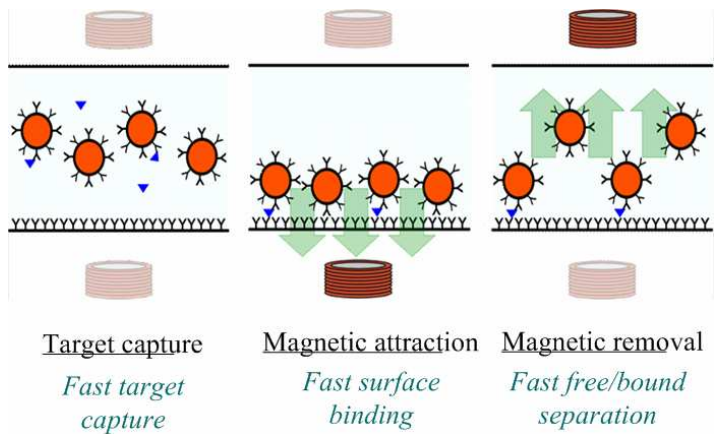




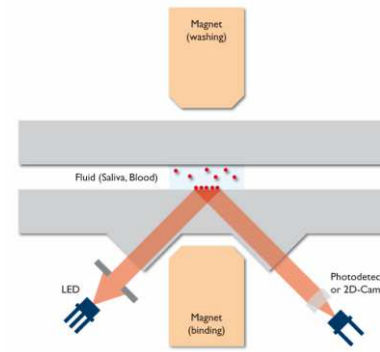
# Circulating Cells



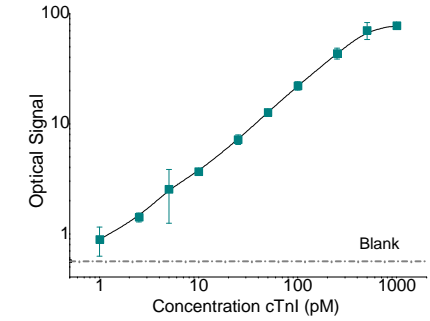
# Diabetes



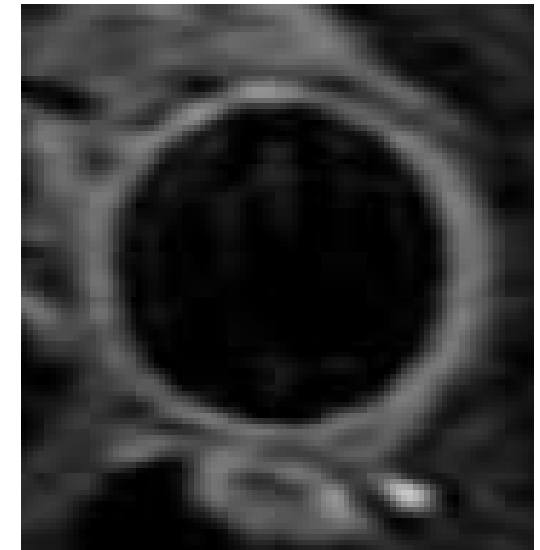
# Coagulation



Philips' Magnotech



# Heart Failure & Arrhythmia



# Stroke and Vessel wall imaging



# CTMM Partners: Academic & Large Industry

## Academic

1. Academisch Medisch Centrum Amsterdam (AMC)
2. Akademisch Ziekenhuis Leiden h.o.d.n. Leids Universitair Medisch Centrum (LUMC)
3. Erasmus University Medical Center Rotterdam (EMC)
4. Universitair Medisch Centrum Groningen (UMCG)
5. Universitair Medisch Centrum Utrecht (UMCU)
6. Interuniversitair Cardiologisch Instituut (ICIN)
7. Maastricht University (MUMC)
8. Medical Centre Nederlands Kanker Instituut (NKI)
9. Stichting Katholieke Universiteit (Radboud Nijmegen)
10. Stichting Jan van Bremen Instituut
11. Technische Universiteit Delft
12. Technische Universiteit Eindhoven (TU/e)
13. The University of Verona
14. The University Court of the University of Edinburgh
15. TNO Kwaliteit van Leven
16. Universiteit Leiden (LU)
17. Universiteit Utrecht(UU)
18. VU Medisch Centrum
19. University of Glasgow
20. Imperial College

## Industry (large)

1. Abbott Laboratories Netherlands BV
2. Astellas Pharma Europe BV
3. Atos Origin
4. Beckman Coulter Nederland BV
5. Biofocus DPI BV
6. Bristol - Myers Squibb BV
7. Danone Research
8. Dionex Benelux
9. DSM Biomedical Materials BV
10. DSM Research BV
11. Esaote Europe BV
12. FEI Company BV
13. Genmab
14. Medtronic Bakken Research Center BV
15. Organon / Schering Plough
16. Orbus Neich Medical BV
17. Philips Electronics Nederland BV
18. Roche Nederland BV
19. Stichting Sanquin Bloedvoorziening
20. ThermoFisher Scientific BV
21. UCB Pharma BV

# CTMM partners: SME (< 250 FTE)

1. Antibodies for Research Applications BV (ARA)
2. ACS Biomarker BV
3. Agendia BV
4. Arthrogen BV
5. BAC
6. BG-Medicine NV
7. Biomade Technology Foundation
8. BioOrion Technologies BV
9. Biqualyis BV
10. BV Cyclotron Vrije Universiteit
11. Cavadis BV
12. Check-Points Health BV
13. Crosslinks BV
14. Da Vinci Europe Laboratory Solutions BV
15. DEAM BV
16. DiagnOptics Technologies BV
17. Euro Diagnostica AB
18. Fabpulous
19. Flexgen BV
20. Future Diagnostics
21. Hans Mak Instituut
22. Hycult Biotech BV
23. Imaging Rheumatology BV
24. Immunetrics Inc.
25. inteRNA Technologies BV
26. IQ Therapeutics
27. Kreatech Biotechnology BV
28. Lead Pharma Holding BV
29. Luminostix BV
30. Medipark BV
31. Microbiome BV
32. Microscan BV
33. Milabs BV
34. ModiQuest BV
35. MRC Holland
36. Mubio BV
37. NIPED
38. NovioGendix
39. Novirun BV
40. O2View BV
41. Oncomethylome Sciences SA
42. Oroboros Instruments GmbH
43. PamGene International BV
44. Pep Tx Inc.
45. Percuros
46. Pie Medical Imaging BV
47. Preselect Diagnostics BV i.o.
48. QVQ i.o.
49. Service XS
50. Skyline Diagnostics
51. Spinnovation Analytical BV
52. Ssens BV
53. SyMo-Chem BV
54. Synapse BV
55. Topic
56. U-Protein Express BV
57. Virtual Proteins
58. Visual Sonics Inc.
59. Westburg