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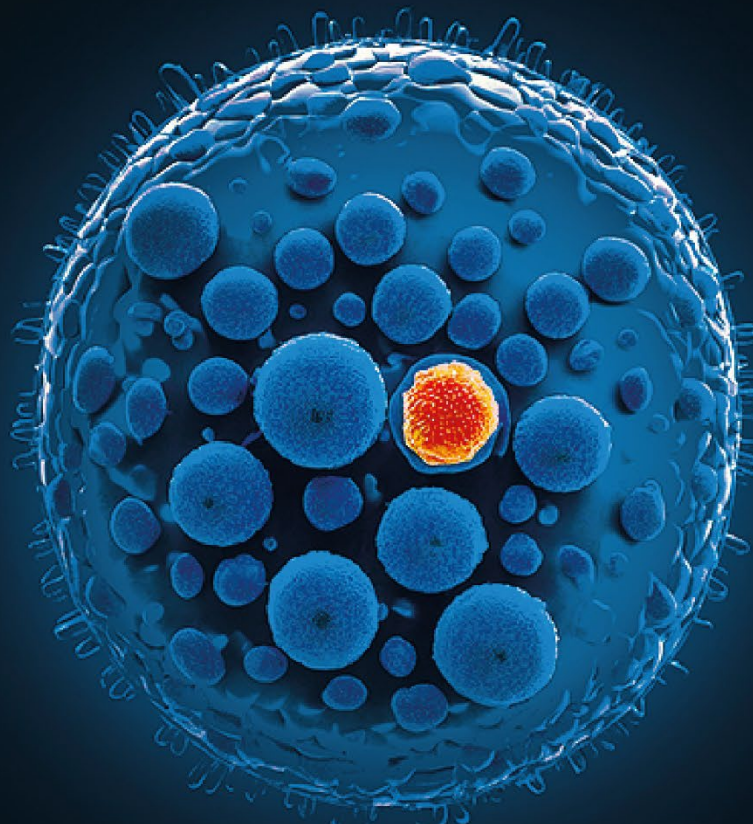


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Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA

HEAL **ITALIA**



FORUM NAZIONALE SULLA MEDICINA DI PRECISIONE

Il Modello HEAL ITALIA e il contributo della Ricerca al Sistema Sanitario del Futuro

PALERMO

13 · 14 · 15

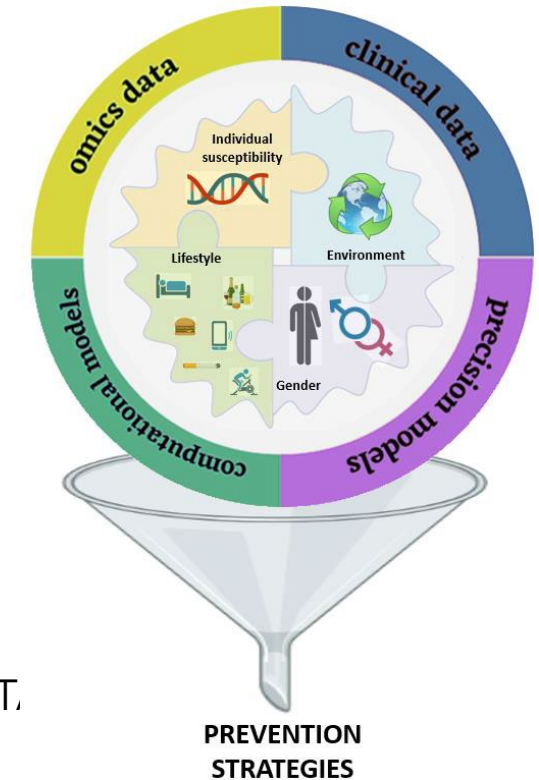
GIUGNO 2024

SPOKE 7

Prevention Strategies

○ SPOKE PRESENTATION

- 68 researchers involved of which:
 - 40 forming part of the critical mass
 - 28 recruited ad hoc on the project (of which 16 RTDA, 7 PHD, 4 Research Fellows, 1 PT,
- Spoke Leader: Polytechnic University of Marche, Ancona
- Affiliates: Higher Institute of Health, University of Catania, University of Modena and Reggio Emilia, University of Foggia, University of Rome La Sapienza, University of Bologna, University of Cagliari, Hospital Physiotherapy Institutes (IFO) Regina Elena National Cancer Institute (IRE)



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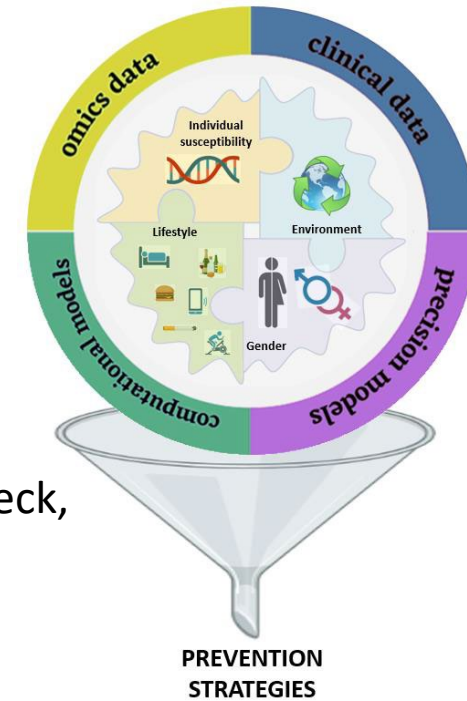
SPOKE 7

Prevention Strategies

○ PURPOSE OF THE SPOKE

The spoke's contribution to Precision Medicine in the field of :

- Research: new biomarkers of
 - individual risk for the development of liver, biliary tract, colorectal, mesothelioma, head and neck, thyroid cancers
 - response/non-response to immunotherapy
 - development of arrhythmogenic cardiomyopathy in young adults and athletes, development of heart failure
 - cardiovascular risk in the female population
 - infection of intracardiac devices
 - development of metabolic disease
 - development of male and female infertility
 - stress in the first 1000 days of life
 - onset and progression of organ fibrosis



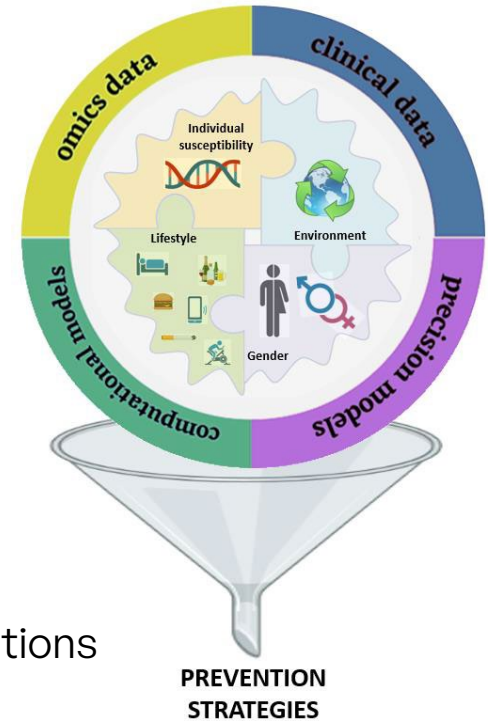
SPOKE 7

Prevention Strategies

○ PURPOSE OF THE SPOKE

The spoke's contribution to Precision Medicine in the field of:

- Sviluppo Tecnologico:
 - creation of multiparametric AI algorithms for predicting individual risk of developing the conditions previously listed
 - creation of innovative "organ on a chip" systems
 - creation of prognostic assays in solid/liquid phase
 - creation of innovative computational models for individual risk stratification



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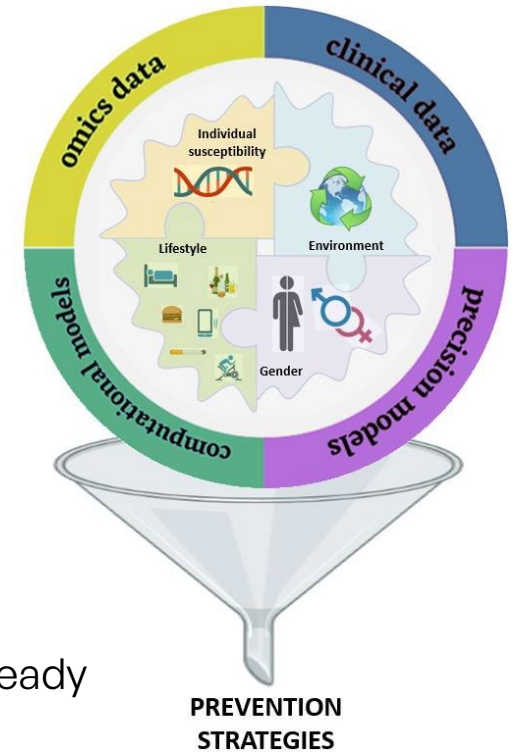
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SPOKE 7

Prevention Strategies

○ WHERE WE ARE (month 18 of 36)

- Create multicenter cohorts with their databases
- Biomarkers to be validated in different contexts of individual risk stratification identified
- Protocols for prospective observational studies have been prepared, some of which have already begun after authorization from the CETs
- Prognostic assays, "organ on a chip" systems and risk prediction models are under development
- The acquisition of the large equipment necessary for Spoke activities is almost complete
- The BACs for the strengthening of Spoke research and development activities have been completed



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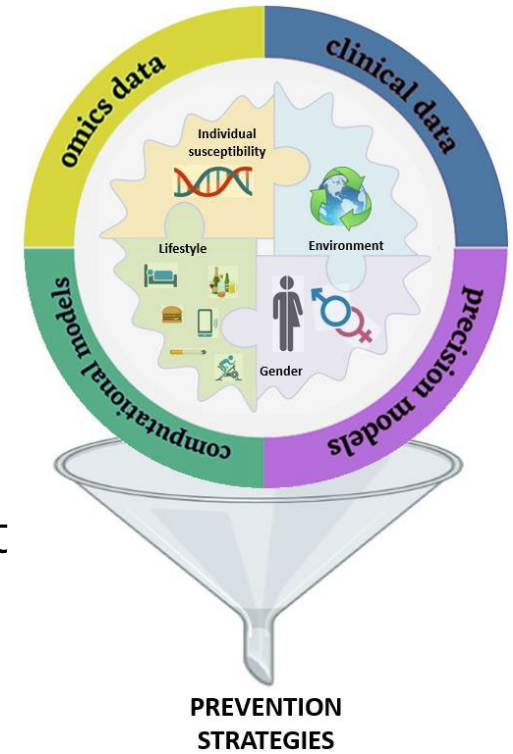
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Prevention Strategies

○ WHERE WE ARE GOING

- Towards the achievement of key milestones for the success of the project
- Towards the development of innovative methods
- Towards new concepts and models of patient stratification
- Towards new public-private collaborative networks



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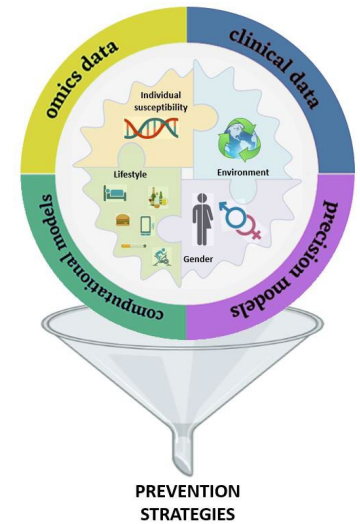
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SPOKE 7

Prevention Strategies

- **THE CHALLENGE**/ Where we will be in month 36)
 - We will have created new paradigms for personalized prevention strategies
 - We will have discovered new determinants of the individual risk of developing neoplastic, cardiovascular and metabolic diseases, from birth to adulthood, in females and males
 - We will have identified previously unknown differences in the field of fibrosing diseases
 - We will have increased the number of biological samples available to the BBMRI network of Italian biobanks
 - We will have created new public-private collaborative networks
 - We will have trained new medical researchers and biologists trained in the application of precision medicine aimed at disease prevention



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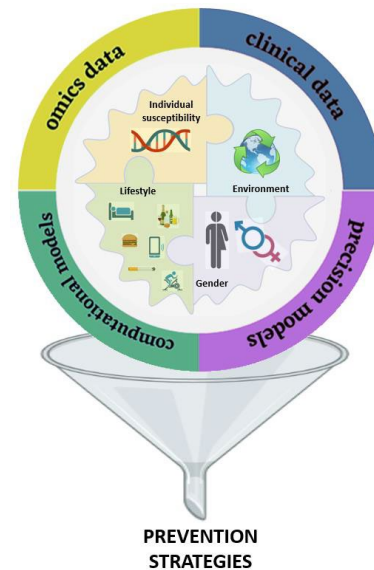
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Prevention Strategies

○ FORECASTS AFTER THE CLOSURE OF THE PROJECT

- The cultural and infrastructural prerequisites have been created for a permanent collaborative platform dedicated to the development of innovative prevention strategies in our country
- Continuation of clinical observational studies started in the 3 years of the project, in order to obtain long-term data and validate prevention models
- Implementation in the NHS of prevention protocols (screening tests, prevention measures) developed during the project
- Further development of national higher education on precision medicine
- Creation throughout the national territory of new private companies or public-private spin-offs dedicated to the development and production of devices used in the prevention of diseases



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LIFE CHANGING MEDICINE



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ISTITUTO DI RICERCHE
FARMACOLOGICHE
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Heal Italia

Medicina di Precisione

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