VIMA
Aging and Chronic Diseases
Epidemiological and Public Health Approaches

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Our Unit project, which aims to study the determinants of aging and chronic diseases and the consequences of aging on medical and social care, relies on a conceptual framework that provides a global approach of aging, as illustrated below.

Conceptual Framework of VIMA

Health-related behaviors and lifestyle factors
*Determinants of health-related behaviors in elderly populations
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Social Factors
*Social and geographic determinants of asthma
  [nicole.lemoual@inserm.fr]
*Social determinants of health inequalities in the elderly
  [marcel.goldberg@inserm.fr]

Nutritional Factors
*Causal effect of nutritional, environmental and social factors on Asthma
  [raphaelle.varraso@inserm.fr]
*Association between obesity and cardiometabolic complications
  [sebastien.czernichow@apr.aphp.fr]

The evaluation of health and medical/social services for the elderly
*European Innovation Partnership on Active and Healthy Ageing (MACVIA-LR, joan.bouquet@inserm.fr)
*Impact of caregiving on physical and mental health and quality of life
  [joel.ankri@uvsq.fr]

Constances : 200 000, representative of the French population

Determinants: genetic susceptibility, environmental and occupational exposures, behavior and lifestyle, access to health
2012 18-69 years

16-72 years

Medical exam, cognitive exam for 45 years and more, biology, geocoded address
Follow-up: self-reported annual questionnaires, health exam every 5 years, SNIRAM, CNAM

Biobank: DNA, RNA, plasma, serum

Asthma-E3N: 19 398 women (case-control on asthma)
R. Varraso / F. Clavel-Chapelon (E3N)
Contact: raphaelle.varraso@inserm.fr

Determinants: genetic susceptibility, environmental and occupational exposures, behavior and lifestyle, access to health
1991 40-65 years

1995 64-89 years

Self-administered questionnaires every 2 to 3 years, Nutrition, MGEN reimbursements, Biobank

Case-control study nested on asthma in the cohort
7100 cases
14,200 control
Characterization of phenotypes
Etiological studies

2011: Detailed Respiratory Questionnaire 21300 women, response rate 91%
Follow-up at 4 yrs

Outdoor and indoor exposures
*Social-Economic Status and Air Pollution
  in three European Cohorts
  [benedicte.jacquemin@inserm.fr]
*Outdoor air pollution and respiratory health
  [benedicte.jacquemin@inserm.fr]
*Role of domestic exposure to cleaning products especially in spray form on respiratory health
  [sebastien.czernichow@apr.aphp.fr]
*Outdoor air pollution and rhinitis
  [benedicte.jacquemin@inserm.fr]

Biological and Genetic factors
*Associations between biological markers and asthma, allergy or rhinitis
  [rachel.nadif@inserm.fr]
*Contribution of metabolic signatures in the prediction of metabolic syndrome
  [sebastien.czernichow@apr.aphp.fr]
*Studying gene by environment interactions on biological and clinical phenotypes
  [rachel.nadif@inserm.fr]

Clinical, biological, psychological and social aspects of frailty
*Understanding the expressions, the determinants and the consequences of frailty
  [marie.zino@inserm.fr, joel.ankri@uvsq.fr]

Cohorts

Gazel : 20 625 employees of EDF GDF
M. Goldberg, M. Zino, A. Leclerc
Contact: marcel.goldberg@inserm.fr

Determinants: genetic susceptibility, environmental and occupational exposures, behavior and lifestyle, access to health
1989 35-50 years
1991 51-60 years
2006 61-76 years

Annual self-administered questionnaires, Absenteeism, Matrix Jobs Exhibitions, Health examination, Biobank, SNIRAM

Biobank: DNA, plasma, serum

Egea1: 2 047 adults and children
R. Varraso (Egea1)
Contact: raphaelle.varraso@inserm.fr

2011: Detailed Respiratory Questionnaire 21300 women, response rate 91%
Following rate (92.2%)

Biobank: DNA, RNA, Serum, plasma, RBCS

Exhaled breath condensate

Egea2: 2 047 adults and children
348 cases and 415 control
Objectives
- Determine the genetic factors of asthma
- Identify environmental factors and GeX interactions
- Clarify the heterogeneity of asthma

2006 61-76 years

Following rate (92.2%)

Biobank: DNA, RNA, Serum, plasma, RBCS

Exhaled breath condensate