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## NOVARA NEW TEACHING AND RESEARCH HOSPITAL

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Research future activities in the light of the Teaching  
and Research Hospital

Marisa Gariglio — Università del Piemonte Orientale  
Tenured Professor for Medical Microbiology

## TEACHING

14,000 Students  
33,400 Graduates since 1998  
17 Bachelor's Degrees  
13 Master Degrees  
4 Single-cycle Master Degrees  
2 International Degrees in English  
>50 Visiting Professors

## RESEARCH / HIGHER EDUCATION

19 Specialisation Schools  
16 1st and 2nd Level Masters  
4 PhD's (2 international) with 10 specialisation areas  
>150 Erasmus+ Agreements

## THIRD MISSION

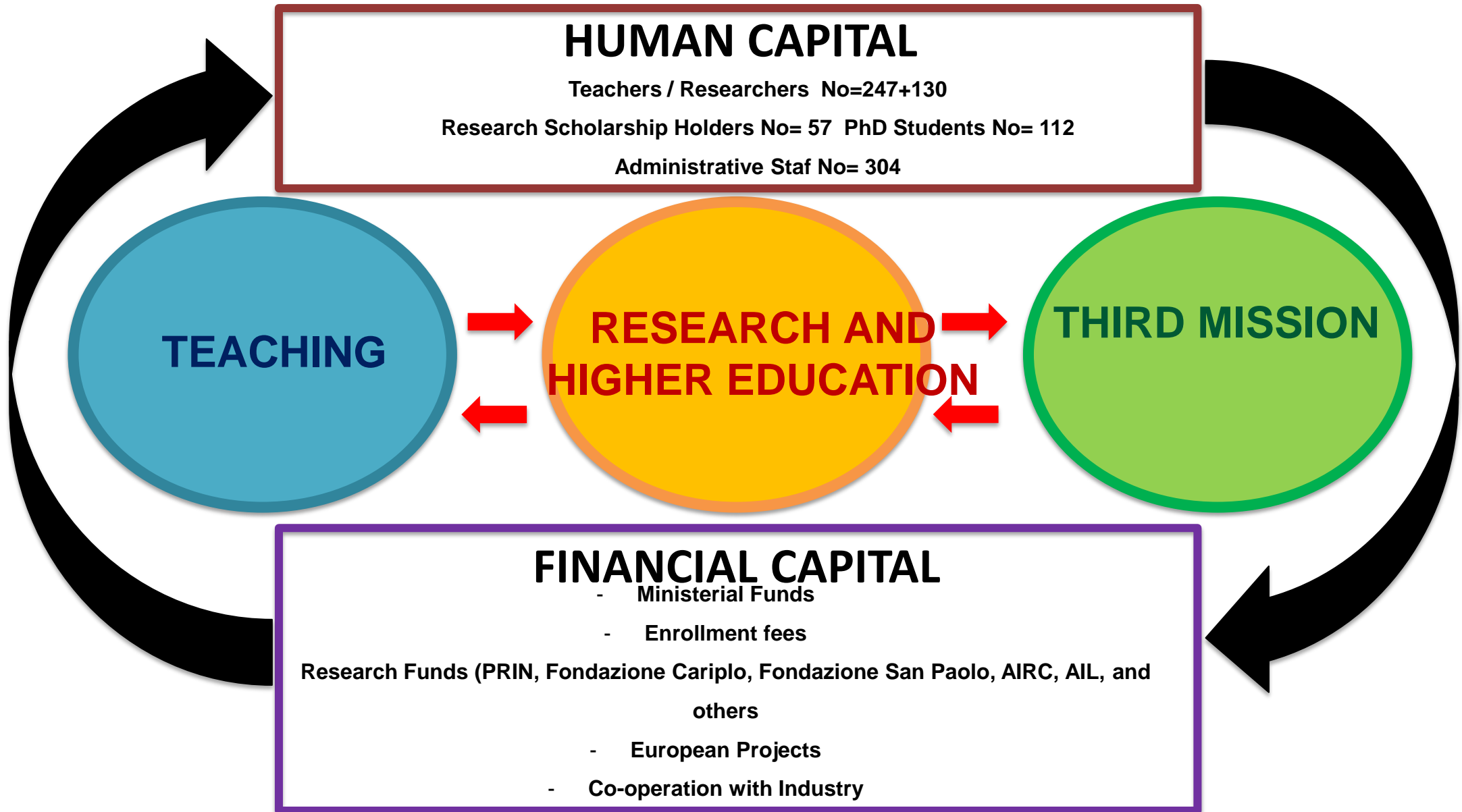


Technological Transfer

Spin off (No=26) Patents (No=13)

Clinical trials

Public engagement



## I Dipartimenti



### Medicine School

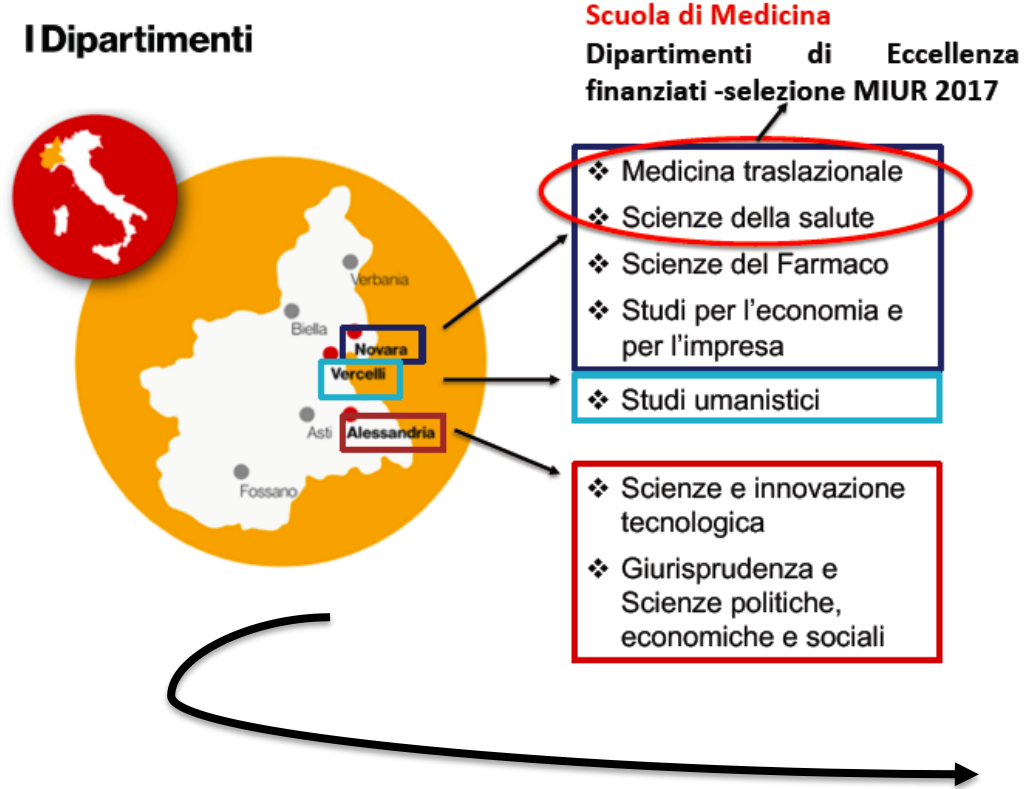
Funds-financed Departments of Excellence - 2017 MIUR selection

- ❖ Translational Medicine
- ❖ Health Sciences
- ❖ Pharmacological Sciences
- ❖ Economy and Business Studies

- ❖ Humanities

- ❖ Technological Sciences and Innovation
- ❖ Law and Political, Economic and Social Sciences

## I Dipartimenti



## STRATEGIC PLANS

- **MULTIDISCIPLINARITY**
- **INTERNATIONALISATION**
- **SCIENTIFIC / TECHNOLOGICAL ADVANCEMENT**
- **TRANSLATIONALITY :**
  - **Social Impact**
  - **Health Impact**
  - **Industry Impact**

**NOVARA**





Phenotype (disease)

**P**

=

Genome

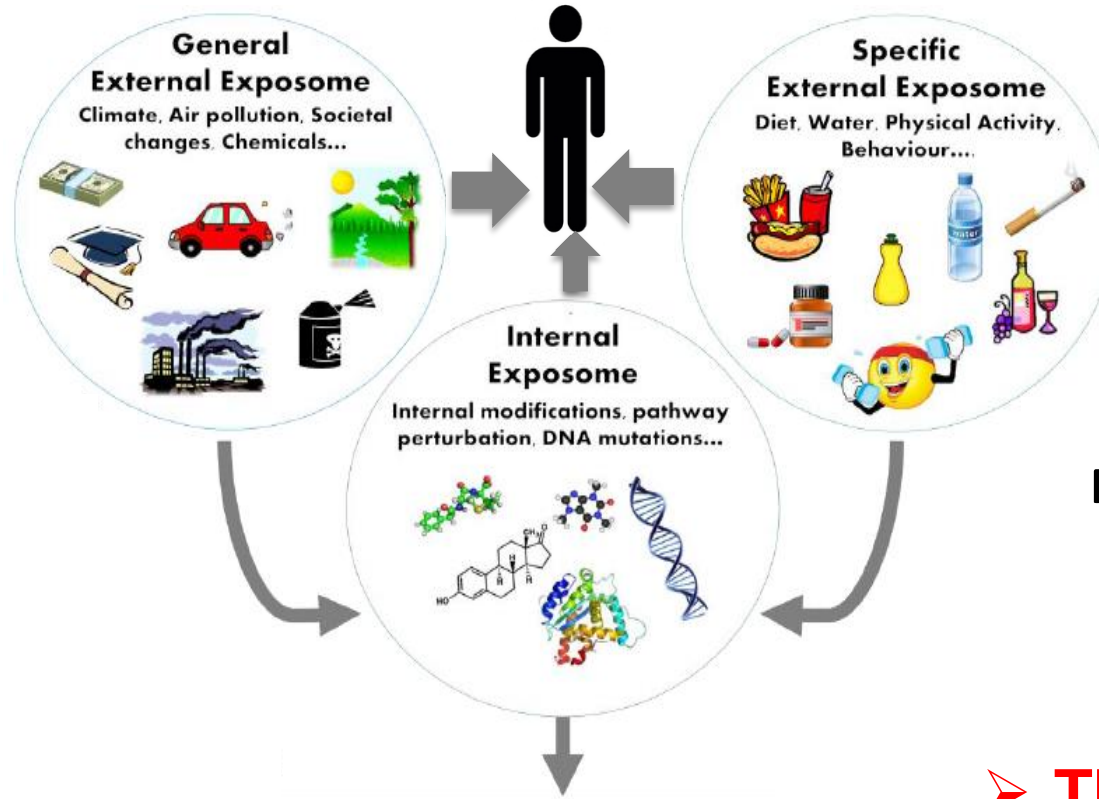
Environment

**G**

+

**E**

## HUMAN EXPOSOME



Personalized  
Medicine

Technology  
Transfer

➤ **Biomarkers**

➤ **Therapeutic markers**

## OMICS ANALYSIS

# Human Exposome Project

Food/Microbiome  
interactions



Clinical nutrition  
Nutraceuticals  
Pre/Probiotics

Food safety  
Regulations

**EuCheMS**  
European Chemical Sciences  
Division of Food Chemistry



**Allergy and  
Autoimmunity**



**Biobanking**

Age-related cancer



Osteoporosis/  
Sarcopenia

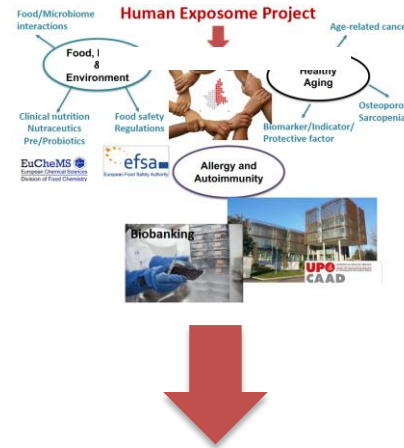
Biomarker/Indicator/  
Protective factor



**UPO**  
**CAAD**  
UNIVERSITÀ DEL PIEMONTE ORIENTALE  
CENTER FOR TRANSLATIONAL RESEARCH  
ON AUTOIMMUNE AND ALLERGIC DISEASE



# Human Exposome Project



## OUTPUT

- Drug discovery and delivery
- Modulation of biological processes
- Active pharmaceutical principles
  - Food quality and safety
  - Ingredient & food design
    - Biomaterials
  - Functional nanomaterials
- Development of innovative socio-economic models and monitoring of their socio-economic impact