

# Public workshop on allergies in a changing environment in Europe

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## Speakers :

- Esther de Lango
- Antonella Muraro (EAACI)
- Jeroen Buters (Center of Allergy and Environment, Technische Universität München)
- Isabella Annesi-Maesano (INSERM)
- Peter Burney (European Community Respiratory Health Survey)
- Carmen Galan (University of Cordoba)
- Lorenzo Cecchi (University of Florence)

## INTRODUCTION

- Esther de Lango

There are more and more allergies in Europe and it is important to demonstrate how our work fit with the European projects.

- Antonella Muraro

We need to establish links between the different projects and researchers to get better treatments for allergic people.

- Jeroen Buters

This workshop was not for doing lobbying or ask for more money but to show and explain to UE how the number of people suffering of allergy increases.

## CURRENT STATUS OF ALLERGIC DISEASES IN UE (ISABELLA ANNESI-MAESANO)

The number of diseases increase for children, compared to the 70's.

Better data are needed.

Some asthma plan are effective (like in Finland) → the cost for treatments decreased after this plan because the patients were well treated.

But the increase of asthma and allergies prevalence are not fully explained.

The cost on inaction is clear and unacceptable, we should work for and with the patients for.

## ALLERGIES IN EUROPE: DRIVERS OF THE ALLERGIC EPIDEMIC (PETER BURNEY)

Prevalence of wheezy illness doubling every 14-15 years.

Prevalence of atopic symptoms increases between ISAAC and ISAAC II.

Some explanations: due to genes, allergen exposure, hygiene, worms and parasite, over nutrition, under-nutrition, dietary.

One thing is sure: things get worse!

Increase in atopic disease may be leveling off in childhood, though the evidence is inconsistent and there is not direct evidence on sensitization.

→ the evidence of sensitization is likely to increase in the more vulnerable older age groups for several decades to come.

## ONGOING EU-FUNDED PROJECTS ON ALLERGIC DISEASES (JEROEN BUTERS)

To show what EU already spent and what spend now, to explain where the money is going.

Air pollution: grasses pollens are the 2<sup>nd</sup> allergens, birch 4<sup>th</sup> (in EU).

Pollution accentuate allergens damage.

Numerous of projects funded by EU or with a contribution of EU: most of them went for chemical particles, not for biological.

Project on allergens: 25 but really only 8 which spoke about allergies.

Missing a general approach:

- allergen exposure
- chemical exposure
- epidemiology

Much data is derived from epidemiology.

For allergies, an integrated exposome approach is needed.

One big project will not give the answers.

## NOVEL DEVELOPMENT (ANTONELLA MURARO)

Avoidance of exposure to allergens: food and aeroallergens.

Long-lasting, partial efficacy.

New findings(identification of cellular, genetics and environmental predictors, ...), emerging concept (inter and intra patients variability to drug response → role of pharmacology, ...), IgE as a therapeutic target, cytokines based immunotherapy, allergen non-specific therapies, allergen specific immunotherapy, vaccine development, here are the main novel developments.

It is urgent to better understand interaction between environment and immune response.

## CHANGING LAND USE AND ALLERGIES (CARMEN GALAN)

Recent changes in land use are related with environmental health

Olive: present in all the Mediterranean area. The pollen is one of the main of allergic disease in this area. With HIALINE, it was shown that some allergens are not at the same time as pollen (sometimes before, sometimes after) → high levels of pollen exposure can cause minor allergies.

New approach because we know that the risk threshold can be different in different countries → different sensitization prevalence?

→ need of more collaborative studies.

Ambrosia: an invasive really allergenic, only needs few pollens to get to the risk threshold → rapidly becomes a cost with the medical treatments.

## DISCUSSION (LORENZO CECCHI)

- Importance of pollen monitoring and public supports, also for epidemiology.
- Fight with ragweed → need more regulation to explain more about the plant (education)
- need to investigate for a vaccine (pollen allergies)
- difficult to say on a 3-years study if the climate change as a role on the pollination. But a work is currently running on it.

### Key messages

- diseases are increasing
- need more fundings and more time for researchers
- allergic disease is not a trivial disease

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