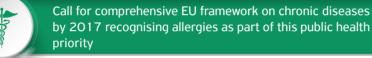
protection medicine is an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person. It enables the precise endotyping of patients using novel methods like proteomics, metabolomics, genomics, diverse cellular assays, and even mobile health technology. Precision medicine allows the design

of therapeutic strategies and customised healthcare with medical decisions, practices, and/or products tailored to the individual patient informed but not directed by guidelines. Precision medicine is fundamental to allergology and has been used for over a century in the diagnosis and treatment of allergic diseases. As such, it has the potential to change the way medicine is practiced.



# **ALLERGIES**

What you need to know and how you can get involved



Request more funding for allergy research, education and prevention

Promote awareness of the effectiveness of allergen-specific immunotherapy and support European research to cure allergy

Demand to recognise allergology as a full medical specialty in all member states – is it recognised in your member state?

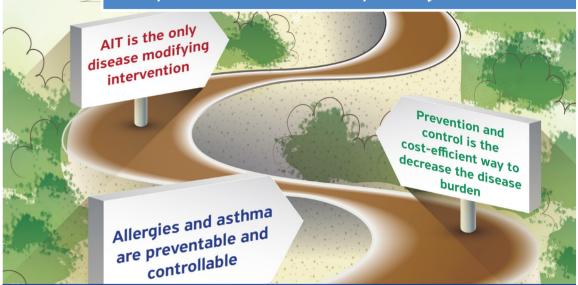
Start a discussion within your country's department of education to include allergic disease in the mandatory general curriculum of all medical schools.

#### Read more

What you

can do:

- EAACI Advocacy Manifesto Tackling the Allergy Crisis in Europe
- EAACI Food Allergy Anaphylaxis Public Declaration
- EAACI Allergen Immunotherapy Public Declaration
- European Symposium on Precision Medicine in Allergy and Airways Diseases: Report of the European Union Parliament Symposium (14 October 2015)



#### What is allergy?

Allergy is an exaggerated response of the human defence system against otherwise generally harmless substances.

#### How allergies are triggered

An "allergen" (e.g. pollen, house dust mites) is wrongly recognised by the immune system, which produces antibodies (IgE) against it. When the allergen re-enters the body at a later time, it is recognised by the antibodies, causing an immune response and the symptoms of an allergy.

## Allergies in Europe

While at the beginning of the twentieth century allergy was seen as a rare disease, in the last few decades we have witnessed a dramatic increase in disease burden. Today, more than 150 million Europeans suffer from chronic allergic diseases. Half of them are underdiagnosed or poorly managed due to a lack of awareness and shortage of medical specialists.

## Allergies in numbers

## 150 million

Europeans suffer from chronic allergic disease

# 17 million

Europeans live with a food allergy and 8% are at risk of an acute, life-threatening reaction called anaphylaxis.

There are 3.5 million children with food allergies

# 100 million Europeans suffer from

pollen allergy (also known as hay fever and allergic rhinitis)

45% of patients

have never received

an allergy diagnosis

# By 2025

70 million

asthma

Europeans suffer from

it is estimated that more than 50% of all Europeans

will suffer from at least one type of allergy

## Facts about allergies

Allergies are the most frequent chronic diseases in children and young adults.

- Allergies usually start in childhood and persist for many years, often for life. However, allergies can develop at any age.
- Patients with one allergic disease have a high risk of developing more allergies.
- In children, one allergic disease often follows another ("allergic march"). Atopic eczema appears first, affecting more than 10% of babies in Europe.
- Allergies run in families, but most new cases appear in people without a previous family history of allergy.
- Asthma and allergic rhinitis very frequently co-exist in the same person; together they are called respiratory allergy.

... and, most importantly:

## 0 Allergies are treatable and preventable!

#### The socio-economic impact of allergies and chronic airway diseases



With a current estimate of more than 150 million patients and a prediction of more than 250 million patients in Europe in the

next decade, allergies constitute a public health concern of pandemic proportions that requires immediate and coordinated action.



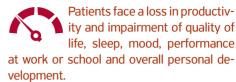
Asthma and allergic rhinitis alone are estimated to result in more than 100 million lost workdays and missed school

days in Europe every year. This figure is complemented by an increase in presenteeism, in which a person still goes to work, but because of their condition, is unable to perform to their fullest capacity.



Up to 20% of patients with allergies live with a severe debilitating form of their condition, and struggle daily with the fear of a possible asthma attack, anaphylactic shock,

or even death from an allergic reaction.





Allergic disease tends to peak during an individual's high productivity years, occupying a large share of their daily time.

Asthma and rhinitis are the most common chronic diseases in children and are also common in the elderly and cause serious

problems in this age group due to multimorbidity.



The prevalence of allergic diseases is growing rapidly in parallel to allergy triggers that include urbanisation, industrial-

isation, pollution and climate change - factors that are not expected to reduce in the foreseeable future.

## PREVENTION, EARLY DIAGNOSIS AND CONTROL REPRESENT A PRIORITY FOR THE ENTIRE EU

### The cost of allergies on society

The socio-economic impact of allergies is enormous. The economic burden on inadequate treatment of allergic diseases in Europe has been estimated to range between € 55 and 151 billion each year.

European healthcare systems could save an average of  $\in$  142 billion each year if patients were treated appropriately with available cost-effective treatment options.

### Bring allergy speciality to the political agenda!

Recognition and prioritisation of allergy speciality is urgently needed to improve patient outcomes and to prevent devastating consequences. Allergology is recognised as a full medical speciality in only 15 EU countries. In addition, recent statistics reveal a deficit and growing disparity in the number of allergists and allergy centres in Europe.