

Vienna, 14 January 2016

## **Mark Zuckerberg sparks international vaccination debate – 800 medical experts compared notes on Saturday at the Austrian Vaccination Day**

**On 8 January Facebook CEO Mark Zuckerberg triggered discussions all over the world when he posted a photo of his baby online alongside the comment “Doctor’s visit – time for vaccines”.**

**And on Saturday 16 January a group of international experts at the Austria Center Vienna talked to 800 physicians and other individuals working in various areas of healthcare about the relationship between personalised vaccination plans and universal immunisation programmes. Risk groups such as premature babies, cancer patients and people suffering from autoimmune diseases require personalised prevention solutions. In future a digital vaccination pass will help improve record keeping and boost vaccination rates.**

- Personalised vaccinations are becoming increasingly important as demographic profiles continue to shift
- Low vaccination rates among adults significantly weaken herd immunity
- ELGA is intended to raise vaccination coverage among vulnerable populations

### **Personalised medicine – personalised vaccines – current developments**

“Treatments that are more closely tailored to individual patient profiles are proving highly effective in many areas of medicine. Which is why it is time to start thinking about whether we can extend the advances seen in personalised medicine into vaccinations,” explained Prof. Ursula Wiedermann-Schmidt, Head of the Institute of Specific Prophylaxis and Tropical Medicine at the Medical University of Vienna and scientific director of the 2016 Austrian Vaccination Day. This change in approach is being driven by shifts in social demographics. Until now, vaccinations have been developed with the healthy majority in mind, but specific groups such as premature babies, people with chronic illnesses and older people are increasingly presenting new challenges. The chronically ill in particular are susceptible to specific infections, while older people and premature babies have immune systems that respond less well to active immunisation. Biological agents which are administered for autoimmune diseases such as psoriasis and rheumatoid arthritis can trigger susceptibility to certain infections, due to the way they affect the immune system. In future, personalised vaccination strategies will focus more specifically on the needs of these risk groups.

But before personalised vaccination can get off the ground, research into adjusting dosages for individual risk groups is needed, as well as the pharmaceutical auxiliaries that must be used. Another focus is on looking at whether alternative vaccination channels – introducing agents via other parts of the body – increase effectiveness is another focus.

### **Universal vaccination programmes still a key prevention tool**

At the same time vaccinologists continue to pursue the strategy of achieving the highest possible vaccination rates in the population. "This is essential, since escalating vaccine fatigue means herd immunity is weakening, paving the way for diseases to spread more easily," Wiedermann-Schmidt explained. While parents ensure that infants are regularly and comprehensively vaccinated, there is a tendency among teenagers and adults to neglect this area of personal healthcare. Wiedermann-Schmidt believes this vaccination fatigue is due to the fact that many people view childhood diseases, which are highly infectious and still pose a considerable danger to adults, as harmless. In the case of measles, whooping cough and polio, the risk of adults contracting an infection is widely underestimated.

Measles can lead to infections of the inner ear, pneumonia or even inflammation of the brain (encephalitis), resulting in serious complications or even death. In infants, subacute sclerosing panencephalitis (SSPE), a complex brain inflammation that often leads to death, is a particular concern. Another highly infectious and potentially fatal disease, polio, can lead to irreversible paralysis. For many years the disease was thought to have been eradicated, but it is increasingly found among refugee populations.

Every year around 1,000 people die from influenza and flu-related conditions in Austria alone. The World Health Organization (WHO) has been targeting a vaccination rate for influenza of 70%, but in Austria the figure amounts to just under 8% of the population. An additional issue stems from fears about possible side effects, which refuse to go away despite the high quality of vaccinations, stringent criteria set in place by the European Medical Association (EMA) and years of data showing that the risks are very small.

"It is depressing that we are still channelling so much energy into diseases that could be brought entirely under control through higher vaccination rates, or, like smallpox, could be eradicated fully if all countries were to pull together in the same direction," noted the scientific director of the Austrian Vaccination Day.

### **Vaccinations for pregnant or breastfeeding women already a reality**

Pregnant women and babies call for special attention. Wiedermann-Schmidt is a major proponent of Get Prepared for Pregnancy programmes, which promote vaccination against measles, mumps, rubella, chickenpox, diphtheria, tetanus and other common childhood diseases. Even if an expectant mother does not have full immunisation cover before becoming pregnant, a number of vaccinations can still be administered during pregnancy to combat conditions such as whooping cough and influenza. However, vaccinations using live bacteria such as measles, rubella and varicella are contraindicated for pregnant mothers. All of the live vaccinations recommended for Austria should be given once the child is born, while the mother is still breastfeeding, in order to ensure optimal immune health for mother and baby. One new addition to the national vaccination programme is a clear recommendation concerning the meningococcal B vaccination for all babies and small children. "Studies of the data for the past year indicated strong tolerance, meaning that the vaccination against this widely-feared meningitis disease can be recommended for infants," Wiedermann-Schmidt added.

### **Protection for medical professionals**

The Austrian general public and its aid agencies are playing a key role in looking after the nation's refugees, a situation which sees helpers frequently coming into direct contact with people in poor health. As this brings with it an elevated risk of spreading contagious diseases, the Austrian health ministry has recommended that both helpers and refugees

receive basic vaccinations against a host of ailments including measles, diphtheria, tetanus, polio and whooping cough.

There are also recommendations in place for people working in the health sector. Discussions were likewise under way in 2015 regarding mandatory vaccines for certain diseases such as measles. Wiedermann-Schmidt hopes that healthcare professionals will lead from the front to protect themselves and the patients in their care. “The best way to increase public confidence in vaccines is by example,” the vaccinologist confirmed.

### **ELGA: future route to vulnerable populations?**

While the special requirements of certain risk groups such as cancer patients, people suffering from autoimmune diseases and older people are widely known and the subject of continuing research, it is still proving difficult to identify additional risk groups. At present there is a distinct lack of data – except for babies and very young children – that give a clear indication of actual vaccination rates in the adult population. As a result it is only possible to draw conclusions on and respond to potential gaps in immunisation coverage retroactively, once an increased incidence of diseases that can be prevented through vaccinations is reported. Prof. Wiedermann-Schmidt hopes that the introduction of a digital immunisation pass, which is under discussion and development at ELGA, will shorten the amount of time taken to detect coverage gaps, making it easier to identify risk groups and set in motion the necessary vaccination schemes and catch-up programmes. Research is focusing on accelerating the development of vaccinations for specific target groups.

### **Coexistence of personalised medicine and universal vaccination programmes**

In the future a way must be found for personalised vaccination and universal vaccination programmes to work together more effectively. “We need both approaches to help protect people from dangerous pathogens whatever their stage of life,” Prof. Wiedermann-Schmidt cautioned in her capacity as scientific director of the 2016 Austrian Vaccination Day.

She recommends that patients take their vaccination pass with them when they go to see the physician currently treating them, or consult their pharmacist, GP or paediatrician to find out how they can best balance their own personal requirements and the coverage offered by universal vaccinations. Members of risk groups can also visit specialist vaccination centres, such as the one operated by MedUni Vienna on Kinderspitalgasse, for further information. The Austrian Federal Ministry of Health website gives a comprehensive overview of the national vaccination programme:

[http://bmg.gv.at/home/Schwerpunkte/Gesundheitsfoerderung\\_Praevention/Impfen/](http://bmg.gv.at/home/Schwerpunkte/Gesundheitsfoerderung_Praevention/Impfen/) (German only).

### **About the 2016 Austrian Vaccination Day**

The Austrian Vaccination Day is the largest strategic vaccination event for doctors and pharmacists in Austria. It is hosted at the Austria Center Vienna by the Österreichische Akademie der Ärzte GmbH and the Medical University of Vienna in cooperation with the Austrian Chamber of Physicians, the Austrian Chamber of Pharmacists, the Austrian Society of Paediatrics and Adolescent Medicine and the Austrian Preventive Medicine League [www.impftag.at](http://www.impftag.at).

### **About IAKW-AG**

Internationales Amtssitz- und Konferenzzentrum Wien, Aktiengesellschaft (IAKW-AG) is responsible for maintaining the Vienna International Centre (VIC) and operating the Austria Center Vienna. The Austria Center Vienna is Austria's largest conference centre, with 24 halls, 180 offices and meeting rooms, and some 42,000 square metres of event space (including 22,000 square metres of exhibition space), and is one of the top players on the international conference circuit. IAKW-AG and the Austria Center Vienna are headed by Chief Executive Officer Susanne Baumann-Söllner.

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