

Knighting immunology

To the Editor:

Readers of *Nature Immunology* can easily get by without knowing much about shortcuts, short films or Superman. They may use a few shortcuts while operating their computer, they may occasionally see a short film on television or on the internet, and for relaxation they may enjoy secretly, or openly, reading comic books about Superman. In contrast, immunologists know all about the importance of the immune system in combating infectious diseases and surveillance of malignant cells. They are well aware that immunity is the basis of vaccination and know that misdirected immune responses can cause allergy and autoimmunity.

On the other hand, non-immunologists, notably young people, are likely to be highly familiar with Superman comics, shortcuts and short films such as those available on YouTube. For them, however, the immune system is largely a 'black box'. It functions so well that it is a victim of its own success, working away completely unnoticed. Only when an infectious disease overwhelms someone is the immune system noticed and blamed for failing. The fact that it fights daily to preserve human lives, as documented by the high susceptibility of patients with AIDS to otherwise trivial infectious agents, quickly fades from memory. Because of the highly reliable performance of the immune system in immunocompetent people, and because of the successes of vaccination programs in the industrialized world, many people are not interested even in approaches that describe immunology in comprehensible and simplified terms. Perhaps the best way to educate the public about these concepts is to entertain them at the same time.

The European Federation of Immunological Societies has embarked on a new endeavor to try to do just that. We wanted to raise curiosity about immunology among lay people without bothering them with the technical 'nitty-gritty'. So we decided on the approach of a short film to raise interest in the topic of immunology without confusing people with basic science or technicalities and also to illustrate the importance of immunity in well-being and health. For this, we advertised an award competition under the heading "short cuts for immunology" (<http://www.immunology-spot.de/>); formed an international jury of experts, including scientific journalists, script writers, film producers and directors; and invited young directors to submit proposals for a short film. Submissions had to fulfill our aim of raising curiosity about immunology in health and well-being without dealing with it directly. The prize included an award of €3,000 plus up to €25,000 for the realization of the concept.

The winner, "The Immunology Knight" by Luca Sabbioni (Milano, Italy), is a silent film that features a young lady being threatened by a group of robbers in a dark alley (Fig. 1). The robbers confront the woman while heavy rain is pouring down. Fear is palpable on her face. As her fear of an attack mounts, Superman appears out of the darkness to rescue her. A short fight ensues, gunshots are heard and the bad guys are driven away by Superman. The lady turns to thank Superman, when he suddenly suffers an attack of sneezing and coughing. She passes him her handkerchief and he stumbles with weakness as she accompanies the debilitated Superman into the distance. Words glide across the screen as the film ends: "Influenza, tuberculosis, AIDS, malaria, lupus,



Figure 1 Scenes from the winning film, "The Immunology Knight" by Luca Sabbioni (Milano, Italy).

diabetes, arthritis"—and then as a final statement, "Even a Hero is Vulnerable."

The film was shown to the public for the first time at the European Congress of Immunology on 13 September 2009 in Berlin. If you have not seen it but are eager to watch the whole film (best seen with your children; it takes only a couple of minutes of your time), please visit our website, where it is publicly available (<http://www.immunology-knight.org>). Please also share this shortcut for immunology among your friends—immunologists and non-immunologists alike—who might be entertained and enlightened at the same time.

Stefan H E Kaufmann

*Department of Immunology, Max Planck Institute for Infection Biology, Berlin, Germany.
e-mail: kaufmann@mpiib-berlin.mpg.de*