The inaugural conference of the newly established Antiviral Group of the International Society for Influenza and other Respiratory Virus Diseases (isirv-AVG) was organised in conjunction with the Oswaldo Cruz Foundation (FIOCRUZ) in Rio de Janeiro, Brazil on 8th to 10th November. The purpose of the meeting was to increase awareness of the antivirals available for combating influenza and understanding of their efficacy and effectiveness in different situations, policies for use against pandemic and seasonal influenza, and the limitations posed by development of resistance.

The focus on Latin America was reflected in just under half of the 130 participants being from that region. Delegates were drawn from clinical, laboratory and policy backgrounds at national and international level. Organisations represented included national public health agencies and academic institutions from North and South America, Europe and Asia, and the WHO. The opening address was given by Dr Paulo Gadelha, President of FIOCRUZ, who explained the importance of the conference for Public Health and its timeliness in the aftermath of the 2009 pandemic and continued threat of H5N1.

A keynote lecture which introduced the context of antivirals, in relation to vaccines, in the control of influenza was followed by three symposium sessions in which a further eleven international experts provided a comprehensive review of the current state of the art and recent developments of newer antivirals, development of resistance and future perspectives on alternative antiviral strategies to combat influenza.

Six workshops provided a forum for more detailed discussion of particular aspects. These included national policies for use of antivirals and the challenges faced during the emergent 2009 pandemic, how policies were modified over the course of the pandemic and how difficulties in mobilising ‘pandemic’ stockpiles emphasised the importance of established practice in effective distribution of antivirals. With the currently circulating viruses resistant to the M2 inhibitors, amantadine and rimantadine, the meeting focussed on the neuraminidase inhibitors, with an emphasis on the emergence of resistance, particularly to oseltamivir. The importance of effective surveillance and monitoring of antiviral susceptibility, especially in relation to antiviral use, was stressed, and there was lively discussion of the relative merits of different assays for detection and characterisation of resistance mutations, and of the in vivo consequences of reduced sensitivity of the neuraminidase in terms of clinical and epidemiological significance. Of particular concern in relation to the emergence and spread of oseltamivir-resistant seasonal H1N1 viruses during 2007-2008, is the apparent relative fitness of 2009 H1N1 pandemic viruses with a H275Y resistance mutation and, despite the generally low frequency of resistant variants, the possible wider spread of a recent cluster of such oseltamivir-resistant viruses in Australia.
Interactive demonstrations facilitated discussion of the use of a reference panel of resistant and sensitive viruses in susceptibility monitoring, of methods for IC$_{50}$ determination and statistical analyses of antiviral susceptibility data, and of databases for collation and sharing of phenotypic and genetic data. Information presented in the various sessions was also complemented by 25 poster presentations on various themes.

Discussion of recent developments included the relative merits of other recently approved neuraminidase inhibitors, peramivir and laninamivir, and of phase II/III clinical studies of the polymerase inhibitor favipiravir (T-705), but also stressed the need for more effective therapies for clinical management of influenza. Future perspectives included a review of other potential targets and the structural data now available to assist in the design of alternative antivirals. The meeting concluded on a very positive note with a presentation illustrating the efforts of numerous small pharmaceutical companies to develop novel antivirals against influenza.

A conference dinner at Rio Scenarium on the evening of the first day afforded delegates the opportunity to experience the delights of Brazilian cuisine and culture as well as to meet and interact. An informative excursion to the historic FIOCRUZ campus on the afternoon of the second day was particularly appreciated by many of the participants. Generous support of the conference allowed provision of travel grants to assist some twenty delegates to attend.

Following the close of the conference, the first annual meeting of the Antiviral Group was held to explain to the delegates, who became members by virtue of attending the conference, the objectives, development and structure of the group and role of the AVG committee, and ways in which members may participate in the activities and future development of the group.