Thank you very much for inviting me to speak in this opening panel. It's a great honour, particularly as I am - more than most people here - unqualified to do so. Indeed I was very doubtful whether I should come at all. Perhaps I should just have left it all to the experts and their user groups? However, as a biochemist I am a user too - not in the sense of holding patents, but in the sense of using knowledge in research; and as a member of the public I am exposed to the consequences of what is decided. So perhaps I may venture a tentative opinion.

For many years I worked in laboratories, got some things done, and finally ended up in the human genome project. Basically I just wanted to get on with my job, but was amazed to find myself involved in a fight between the public and private sectors over whether the human genome sequence should be freely released. I was still more amazed at the tacit acceptance by many that this information could and should be privatised - something that naively I thought would be beyond the pale. When that matter had been dealt with, I was interested to find out more about what was going on in the world of ownership that previously I'd had little to do with.

So really I'm here to learn. The following comments have benefited from a number of inputs, particularly from Joseph Stiglitz (who would be a much more appropriate speaker for this slot!), but I am speaking in a purely personal capacity and any errors are mine alone.

People need a robust system for handling intellectual property, and world harmonisation of IP is extremely desirable. Removing diversity is good for the majority of those seeking patents, by simplifying the process and avoiding duplication in the work of patent offices, so IP professionals will rightly press the case to do so. But it may not be so good for the rest of us, the ultimate users of the results, and may not be good for all patent holders equally. Precisely because the world is diverse, we are not yet in a position to agree easily on the details of the ideal system. Solutions need to be effective overall, not just for the few. We need to seek balances between sometimes conflicting pressures: between developed and less developed countries, discovery and exploitation in science, private and public, free release and monopoly.

Consequently, harmonisation involves a complicated trade-off, whose terms are not the same for all countries and for all sectors of creative work. The word is often taken to mean equalisation, and further to mean equalisation towards more stringent rules. The upwards pressure arises from the difficulty of taking away existing legislation. A good example is the 1996 European directive on databases, which unusually gives more power to the proprietor than is the case with the corresponding legislation in the US. It has now been demonstrated that the directive is ineffective, and perhaps counterproductive, in terms of encouraging the growth of databases in Europe. So is the legislation to be removed? No, because database proprietors wouldn't like it.
During the Uruguay negotiations of the WTO, key interests in the US (including the Office of Science and Technology, and the Council of Economic Advisers) were opposed to the extent to which the TRIPS agreement favoured producers over users. They were right: successive rounds of negotiation and court action have been needed to move TRIPS part way towards a proper balance. There is a strong movement in the US against software patents (as seen, for example, in the Blackberry case), and there are widespread concerns in academia, which I shall deal with in a later session. The extent of the disquiet is not always evident, because we are all adaptable - we want to get on with our jobs even if the circumstances are non-optimal. Not to put too fine a point on it, we can be bought, at least for a time.

The fact is that patents have ambiguous effects. Undoubtedly they stimulate some forms of creativity, and there are many winners. Equally, however, they reduce other forms by eroding the public domain, so there are losers too. Patents are only one instrument of incentive among many, and should exist in balance. For example, most of the great discoveries of science were not made with IP in mind at all, but for fun and for the joy of exploration. Accountability to wealth creation would have snuffed them out.

Many statements affirm the value of patents by showing parallelism between the growth of patenting and increasing prosperity. But proof of causality is usually missing. One can equally point to parallelisms between obesity and prosperity, or between global warming and prosperity. But nobody suggests that obesity or global warming are causes of prosperity - they are unwanted by-products. Undoubtedly, robust patents have an important part to play, but we should be cautious in giving them too much credit for industrial success. This is especially true in the context of world harmonisation. In general, the developing countries that have shown the fastest economic growth are those that retained relatively protected markets until they reached a position of strength. The same was, of course, the case for Europe and the US a century ago. Regrettably, harmonisation is a way for those who have already arrived at a prosperous situation to pull up the ladder and stop others joining them.

Given these imperfections, harmonisation of the patent system is not the first thing to think of - and indeed may do more harm than good. The diversities of national law and practice are needed to make the system bearable, particularly with regard to less and least developed countries. We hear much of the built-in safeguards, but they don't work too well. The flexibilities of TRIPS are good on paper, but problematic to apply. The recent discussions over compulsory purchasing, for example, have resulted in the permanent addition of measures that have never been used: they are complicated and expensive for LDCs to apply, and do not stimulate the market in generic drugs. Either another example of accidental legislation in the face of evidence, or perhaps a deliberate sidelining of the supposed flexibility.

Nevertheless, harmonisation is obviously desirable in the long term, provided that at the same time the world becomes more egalitarian. But at present there are difficulties in pursuing it unreservedly. Rather, it should be introduced gradually and piecemeal where there is mutual benefit.

Progress will be greatly helped by restoring the remit of WIPO to promote creative activity as a whole, rather than being entirely focussed on the policing of existing IP
law, and it is good to see some steps in this direction. Two important themes are the Development Agenda, on which the first meeting took place last week, and a proposal from Chile to appraise the public domain. Both themes have universal connotations: the need for social justice applies as much to poor people in industrial countries as it does to developing countries, and the protection of the public domain is vital for everyone.

However, some regard these themes as diversions from the real business of WIPO. Indeed, the debate sometimes becomes so polarised that questioning and exploring the operation of patent law is regarded as tantamount to antagonism to it. On the contrary, this is a positive impetus, taking on board the range of existing and proposed instruments for handing intellectual property. Let's look at some examples.

One well established instrument is the General Public Licence of the Free Software Foundation. In software it is as important as patenting, and there seems no reason why it should not enjoy similar international status. We in the human genome project were often asked why we didn't adopt GPL-style licensing for our product. The answer is that it was not an invention, and so we had no right to impose terms of any kind on it: a genome sequence is a clearcut case of public domain material, and any compromise with that position would have returned us to the state of competition and duplication from which we managed to escape. Alternatives for handling IP have some of the same features as patents themselves.

However, the GPL principles certainly are capable of being applied more widely. CAMBIA's BIOS (Biological Innovation for an Open Society) licenses are adapted for patented technologies in the life sciences. They provide a commons in which improvements in biological tools can be shared. CAMBIA itself originated as an escape from proprietary monopolisation of tools for plant transformation.

Another well-known example is Creative Commons and its spin out Science Commons, which are helping to change the world of science publishing and material transfer agreements. Both BIOS and Science Commons can be regarded as particular cases of patent pooling, but their proactive approach with ready to use and easily understood templates means that they are driving innovation in the area.

A final example, looking to future prospects, is a resolution to the WHO, submitted by Kenya and Brazil, which proposes better methods for handling IP in biomedical research and development.

Despite their crucial importance to the future, discussion of these matters at WIPO has so far been quite restricted. There are concerns that opening the door to complementary approaches will weaken the patent system, but in fact the reverse is the case. Acknowledgment of complexity is the route to agreement over harmonisation. The existence of a range of licensing options will bridge the wide and uncomfortable gap between patenting and free release. Many commentators consider that patents should be fewer and stronger, and the corollary is that there should be alternative instruments from which to choose. There is much more to be said about the rules surrounding patents themselves - for example the possibility of a remuneration system alongside the present exclusive-rights system - but others will speak more ably in this area.
There is a caveat concerning the prospects for progress, namely that the evolving role of WIPO in the 21st century is leading to a predictable reaction. The US and the EU are working hard to generate bilateral agreements and free trade areas, as mechanisms to bypass international treaties and to set up more stringent IP relationships with a number of smaller countries. The irony is that these so-called free trade areas are a return to old systems of most favoured nations - and indeed imperialism. It's a disturbing development, and needs a collective response.

To reiterate, I'm here to learn, but some things seem evident. Harmonisation but not equalisation is desirable. We need a substantive IP system, but simply heading uncritically down a road of more and stronger exclusivity is wrong for many of us: wrong for science, wrong for many small businesses, wrong for reducing the poverty gap. Wrong indeed for our very survival - for injustice breeds discontent wherever it comes from.

I acknowledge the difficulties of updating international legislation, but these considerations are important. So let's listen to each other, keep reason above ideology, and try to make progress.